



Synthesis of the Partnership Pillar

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Acronyms

ADB	Asian Development Bank	MIC	Middle-income country
AIR	American Institutes for Research	ODA	Official development assistance
ASEAN	Association of Southeast Asian Nations	RCT	Randomized controlled trial
The Coalition	The Global SDG Synthesis Coalition	SADC	Southern African Development Community
CSO	Civil society organization	SDG	Sustainable Development Goal
DEReC	DAC Evaluation Resource Centre	SME	Small to medium enterprise
DEval	German Institute for Development Evaluation	SSC	South-South cooperation
EBRD	European Bank for Reconstruction and Development	UNCTAD	United Nations Conference on Trade and Development
ECOSOC	United Nation General Assembly Economic and Social Council	UNDP	United Nations Development Programme
EPPI	Evidence for Policy & Practice Information	UNEP	United Nations Environment Programme
EU	European Union	UNFPA	United Nations Population Fund
FDI	Foreign direct investment	UNICEF	United Nations Children's Fund
GDP	Gross domestic product	UNIDO	United Nations Industrial Development Organization
GNI	Gross National Income	US	United States
HIC	High-income country	VAT	Value-added tax
ITC	International Trade Centre	VNR	Voluntary National Review
LDC	Least developed country	WFP	World Food Programme
LIC	Low-income country	WTO	World Trade Organization

Executive summary

Measuring progress towards Sustainable Development Goal (SDG) indicators, and assessing which programmes, policies and initiatives are most successful in achieving progress towards the SDGs, can contribute to the development of evidence-based and practical lessons for accelerating that progress. To generate these lessons, the Global SDG Synthesis Coalition (hereafter referred to as “the Coalition”) commissioned American Institutes for Research (AIR) to design and implement an evidence synthesis for SDG-17, the Partnership Pillar of the SDGs, to understand what works, why, and in what context. This is the first SDG for which the Coalition has commissioned an evidence synthesis, with others to follow on the Peace, People, Prosperity and Planet pillars of the SDGs.

The evidence synthesis covered the following synthesis questions:

1. Which SDG-17 targets are currently on track, and which are lagging?
2. Which countries (across contexts) have made the most progress on SDG-17 and why?
3. Which initiatives are most effective in improving and accelerating SDG-17 indicators and targets?
4. How and why are some initiatives more successful in achieving progress towards SDG-17-related outcomes?

This evidence synthesis is the first to address these questions, using evidence from 183 impact evaluations and 70 performance and process evaluations to provide a comprehensive overview of how to accelerate SDG-17 objectives. The synthesis included:

- (a) a text analysis of Voluntary National Review (VNR) data, combined with statistical analyses of seven case study countries (*to address the first two research questions*);
- (b) an evidence synthesis of impact evaluations focused on trade, finance, technology, systemic issues¹ and capacity-building (*to address the third research question*); and
- (c) an evidence synthesis of process and performance evaluations focused on trade, finance, technology, systemic issues and capacity-building that were independently conducted or commissioned by United Nations entities and development partners from multilateral or bilateral organizations, civil society organizations or the private sector (*to address the fourth research question*).

More detail on the synthesis methods is available in the Protocol ([de Hoop et al., 2023](#)).²

1 Policies related to systemic issues may include multistakeholder partnerships that have discrete goals related to other SDGs, or other policies related to systemic issues such as: policy coherence (target 17.13); implementation of country-owned results frameworks (indicator 17.15.1); or increased involvement of private sector, civil society and other stakeholders to mobilize and share knowledge, expertise, technology and financial resources (target 17.16). We describe the inclusion criteria for the five SDG-17 components in the methodology section and provide more details in the methodological protocol (de Hoop et al., 2023).

2 The methodological protocol is available here: <https://www.sdgssynthesiscoalition.org/sites/default/files/2023-08/Partnerships%20Pillar%20Synthesis%20-%20Methodological%20Protocol.pdf>

The evidence synthesis generated 17 lessons which are detailed in this report and summarized below. The lessons focus on the initiatives and contexts for which more rigorous evidence was available, and are organized according to: 1) trade; 2) finance; 3) technology; 4) systemic issues and capacity-building; and 5) cross-cutting issues. Taken together, these lessons help to answer the four guiding synthesis questions.

Lessons on trade

Lesson 1: Regional trade agreements are more effective than export subsidies in increasing the value of exports in middle-income countries (MICs). Regional trade agreements seem to have smaller effects on exports in low-income countries (LICs) than in MICs, though major evidence-gaps remain. While export subsidies can have positive effects on exports in some MIC contexts, evidence remains mixed, and case studies do not show the same acceleration in exports in MICs as after regional trade agreements.

Lesson 2: Maximizing the impact of global trade agreements on export values and foreign direct investment (FDI) will require higher trust in domestic institutions and more product differentiation. Firms' exports and inward FDI increase with trust in domestic institutions after entry to the World Trade Organization (WTO). Because consumers are less sensitive to the price of differentiated products, the impact of WTO entry on imports also increases for differentiated products.

Lesson 3: MICs increase their exports and inward FDI after trade agreements with high-income countries (HICs). However, food and other regulations limit the ability of sub-Saharan African LICs to increase their exports after entering into preferential trade agreements with the European Union (EU) and other HICs. Trade agreements between Southern countries generate larger effects on exports and FDI. A meta-analysis shows that the effects of preferential trade agreements between LICs and HICs on export values is limited. Helping low- and middle-income countries to understand and meet regulatory standards could help them to increase their exports to middle- and high-income countries, though the effects of such support are less certain in LICs because of their limited manufacturing capacity.

Lessons on finance

Lesson 4: Tariff reductions increase exports in various settings, but they also result in significant reductions in government revenue. Tariff reductions linked to trade liberalization result in substantial increases in exports, though the effects of tariff reductions are smaller in LICs in sub-Saharan Africa. Tariff reductions can result in a decline in tax revenue from import duties of between 0.5 percent and 1 percent of Gross Domestic Product (GDP) however, (Buetner & Madzharova, 2018) despite potential positive effects on economic growth.

Lesson 5: Tax reforms, community-based tax collection and VAT taxes can compensate for reductions in tariffs by increasing tax revenue in the short term. The effectiveness of these policy instruments depends on the income status of the country. VAT taxes have larger impacts on government revenue in MICs than in LICs because of limited tax collection capacity and a larger informal sector in the latter. In the short term, community-based tax data collection generates larger effects on tax revenue in LICs. However, in the long term, LICs can increase government revenue with tax reforms that include VAT taxes.

Lesson 6: Where tax collection capacity increases, experimentation can contribute to the selection of the most effective approaches to increase government revenue and reduce the dependence of LICs on official development assistance (ODA). The effect size of the different tax collection methods depends strongly on contextual and implementation characteristics. Although new donors have stepped in, limited ODA, combined with the global debt crisis, point to the need to pilot and experiment with different tax collection approaches to select the most effective instruments in each context, especially in LICs with high dependence on ODA. While ODA flows increased after the COVID-19 pandemic and the war in Ukraine, much has been focused on domestic spending on refugees and aid for Ukraine (General Assembly Economic and Social Council [ECOSOC], 2023).

Lessons on technology

Lesson 7: While green finance initiatives in large Asian countries have positively impacted innovation, their effects remain small and insufficient to accelerate progress in green innovation (i.e., the number of green patents that contribute to environmentally sustainable business practices). Major evidence gaps remain on the impact of green finance initiatives outside of large Asian countries. The relatively small effects on green innovation will not generate sufficient impact to make a large difference in contexts such as China, which is currently the largest emitter of carbon dioxide (CO₂) in the world (Ritchie & Roser, 2022).

Lesson 8: Investments in broadband infrastructure in large Asian countries have enabled green innovation, which contributes to environmentally sustainable business practices in addition to increasing internet access and helping to address the digital divide. Public-private partnerships have been critical for the roll-out of broadband internet to achieve positive impacts on internet access, green innovation, technology diffusion and digital financial inclusion in large Asian countries. However, major evidence gaps remain on the effectiveness outside of large Asian countries.

Lessons on systemic issues and capacity-building

Lesson 9: The incentives for countries to collaborate on SDG-17 components are influenced by their interests, and these are often similar for countries with the same income status. Identifying and addressing the incentives for public and private partnerships promotes more effective global cooperation and accelerates SDG progress. Building clear added value into the design of a partnership increases the likelihood of ongoing engagement.

Lesson 10: South-South and trilateral cooperation show promise to accelerate progress towards SDG-17 results, including capacity development, by prioritizing trust and mutual ownership. Findings from process and performance evaluations indicate that approaches used in South-South and trilateral cooperation show promise to improve national plans and policies, enhance capacity across sectors, and contribute to progress towards SDG-17 over time. However, these partnerships are currently mostly focused on outputs, rather than sustainable outcomes.

Lesson 11: North-South partnerships achieve more results towards SDG-17 when they use the principles of horizontal cooperation in funding modalities, partnership design and governance structures. Evaluations of North-South partnerships, including trilateral partnerships, showed that insufficient consideration of contextual factors was a frequent barrier to the efficiency and effectiveness of an initiative.

Lesson 12: Prioritizing problem analyses and co-creating theories of change can help partners with different incentives to achieve results on SDG-17 indicators. Many initiatives lacked a thorough problem analysis, and theories of change³ or logical frameworks that outlined how activities linked to tangible outcomes were either absent or contained weak linkages. These challenges in initial design had implications for the ability to monitor how activities and corresponding outputs led to concrete outcomes, as well as for the potential to sustain activities beyond the funding period.

3 Theories of change map out how the initiative is expected to affect final outcomes, as well as the assumptions along the causal chain from inputs, to outputs, to outcomes to impacts (White, 2009).

Lessons on cross-cutting issues

Lesson 13: Development initiatives can better examine how the effects of macro-level initiatives differ for groups who are likely to be left behind, by conducting thorough risk and problem analyses, as well as collecting and analysing disaggregated data for vulnerable groups. Many initiatives included in the evidence synthesis did not address equity issues, and most evaluations did not adequately consider the effects of SDG-17 initiatives for those most likely to be left behind.

Lesson 14: To allow member States to better prioritize attention to those most likely to be left behind, VNR information about SDG-17 requires more disaggregated information highlighting equity issues. Currently, VNR reports often present statistical trends, but not usually the trends for those most likely to be left behind.

Lesson 15: Greater use of evaluative evidence allows VNR reports to better identify what works and why in accelerating SDG-17 outcomes. While VNR reports often use statistical data, they do not usually use evaluative evidence to report on progress on SDG-17 indicators.

Lesson 16: More specific language about ways to liberalize trade, increase government revenue and stimulate technology will allow VNR reports to make recommendations about the kinds of programming which can help to accelerate SDG-17 outcomes. Currently, VNR reports primarily focus on descriptions of SDG progress, without linking this to specific initiatives. When VNR reports do include programme descriptions these tend to remain general, limiting the ability of implementers to understand which initiatives could accelerate SDG-17 objectives.

Lesson 17: While data science and artificial intelligence can generate lessons from VNR reports, these reports require stronger connections with statistical data and evaluative evidence to maximize the potential of data science. Currently, progress in SDG-17 indicators is not correlated with the progress reported in VNR reports. Greater use of statistical data and evaluative evidence in VNR reports could increase the correlation between progress in SDG-17 indicators and that reported in VNR reports.

Question 1: Which SDG-17 targets are currently on track, and which are lagging?

The most recent Sustainable Development Report indicates that, according to current trends, “not a single SDG is projected to be met by 2030, with the poorest countries struggling the most” (Sachs et al., 2023, p. 2). Significant challenges remain to achieve SDG and SDG-17 targets in high-, middle- and low-income countries, and across all regions.

However, there has been some recent progress in ODA and access to technology. The average total global ODA remains low, but most recently reached 0.36 percent of gross national income in 2022, compared to 0.31 percent in 2021. These increases were driven by the COVID-19 pandemic, domestic spending on refugees, and the war on Ukraine, suggesting that the increasing trend may not continue in the long term. With respect to technology, an estimated 66 percent of the world’s population used the internet in 2022, compared to 41 percent in 2015 (ECOSOC, 2023).

Despite these moderately positive developments, LICs, especially in sub-Saharan Africa, face a public debt crisis. The total external debt of low- and middle-income countries increased to US\$ 9 trillion in 2021. In November 2022, 37 out of 69 of the world’s poorest countries were either at high risk of, or already in, debt distress (ECOSOC, 2023), demonstrating an urgent need to increase government revenue in LICs.

With respect to trade, least developed countries (LDCs) did not make sufficient progress either. The share of exports of LDCs was 1.05 percent in 2021, which is far from the objective of doubling from 1.03 percent in 2011. In addition, the 2020 worldwide tariff average of 2 percent has not changed since 2017 (ECOSOC, 2023).

The COVID-19 pandemic also created major challenges for data, monitoring and accountability. International funding for data and statistics decreased by \$155 million since 2018, resulting in total funding of \$542 million in 2020. Limited human and financial capacity, combined with the consequences of the global pandemic, have also resulted in the implementation of expired strategic plans for statistical activities (ECOSOC, 2023).

Despite these challenges, some countries have made more progress on SDG-17 than others. The answers to research questions 2-4 help to provide nuance for the differences in achievements between countries and identify which initiatives can help to accelerate progress in SDG-17.

Question 2: Which countries (across contexts) have made the most progress on SDG-17 and why?

Based on statistical analysis of data from the SDG tracker,⁴ AIR identified countries that made considerable progress towards achieving SDG-17 targets in the last five years. These were: Mexico in North America, Latin America and the Caribbean; Myanmar in East Asia and the Pacific; Uzbekistan in Europe and Central Asia; Iraq in Middle East and North Africa; India in South Asia; and Madagascar in sub-Saharan Africa.⁵

The seven countries featuring as case studies for this report (Peru, Myanmar, Uzbekistan, United Arab Emirates, India, Madagascar and Ireland) were selected as part of a positive deviance assessment.⁶ These case studies suggest that some of the most important reasons for countries to make considerable progress on SDG-17 indicators include democratic reforms and trade liberalization. Low- and middle-income countries had large increases in exports and inward FDI, and attracted more remittances, following democratic reforms. Furthermore, regional free trade agreements and trade agreements between Southern partners contributed to acceleration in exports, which in turn enabled countries to improve the sustainability of government debt and increase economic growth. Free trade agreements between Southern countries also contributed to FDI, especially after democratic reforms.

Question 3: Which initiatives are most effective in improving and accelerating SDG-17 indicators and targets?

Table B-1 in Annex B highlights which initiatives have been most effective in improving and accelerating SDG-17 indicators and targets. This table includes evidence from impact, performance and process evaluations and case studies about what works to improve SDG-17 outcomes. It provides a nuanced picture, showing that initiatives can be more effective in middle- or low-income countries. Although major evidence gaps remain on what works to improve SDG-17 indicators, this section summarizes what works across the five components in the current study, based on the available evidence. These promising initiatives must take a holistic approach to ensure project success, however. For instance, while VAT taxes can help to generate federal revenue in MICs, such initiatives require effective coordination, communication and governance for success, and in LICs they are likely to only result in increased government revenue over the long term.

4 <https://sdg-tracker.org/> is a comprehensive dataset on all the SDG-17 targets.

5 The methodology section presents more detail on how performance on the SDG-17 indicators was determined. Exhibit C-1 in Annex C presents the ranking based on a weighted index of countries' performance on the SDG-17 indicators.

6 A positive deviance assessment is a systematic process used to identify and understand positive deviant behaviours or practices. It refers to those who have achieved better outcomes or solutions to a particular problem than their peers, despite facing similar challenges and constraints (Pascale, Sternin and Sternin, 2010). AIR did not always select the highest performing country in SDG-17 indicators in the last five years for the positive deviance assessment. In the selection of case study countries, the country's income status and, the conflict situation were also considered, and whether a country was a historical donor in the selection of case study countries. More details are provided in the methodology section.

What works to improve trade indicators? Regional trade agreements are effective in improving exports in MICs, but their effects are smaller in LICs. While export subsidies have positive effects on exports in some MICs, their effects are smaller than those of regional trade agreements and their effectiveness is likely to reduce in the long term. Cluster development policies, that group together businesses in a geographic zone to facilitate coordination for innovation, have also shown promise to increase exports in MICs, but only very few studies examine their effectiveness.

What works to improve finance indicators? Tax reforms that include VAT taxes are effective in increasing government revenue in MICs, but LICs require different tax collection initiatives to maximize government revenue. In MICs, VAT taxes can likely fully compensate for reductions in import duties caused by tariff reductions. In LICs, governments can increase tax revenue by introducing community-based tax data collection or context-specific messages and approaches that encourage citizens to pay taxes. However, the magnitude of the effects of these initiatives is highly context-specific.

What works to improve technology indicators? Green finance initiatives and the expansion of broadband internet have contributed to innovation that facilitates environmentally friendly production practices for green innovation in large Asian countries, but their effects remain relatively small. The effects of current initiatives are likely insufficient to accelerate progress in SDG-17 technology indicators. In addition, considerable evidence gaps remain on how to improve SDG-17 technology indicators outside of large Asian countries.

What works to improve the effectiveness of initiatives focused on systemic issues, such as partnerships? The effectiveness of partnerships in achieving policy outcomes can be increased when partners identify their different priorities and outline the specific pathways that will lead to meeting them. Using principles of horizontal cooperation, such as trust and mutual ownership, partners with different incentives (e.g., private sector partners, low-, middle- and high-income countries) can achieve progress on SDG-17 indicators. Currently, these principles are most effectively demonstrated in South-South and triangular partnerships, where Northern partners serve as effective brokers between Southern partners.

What works to improve the effectiveness of capacity-building? Initiatives that identify the specific outcomes of capacity-building activities are more effective at catalysing concrete changes to policy and practice. Currently, most initiatives focus on capacity-building at the output level, but most of these activities do not lead to direct policy change. Very few impact, performance and process evaluations focus on what works to improve statistical capacity-building. The evidence in this report points to weak programme monitoring and data disaggregation, elements that can contribute to the generation of evidence that fully incorporates equity considerations, to examine what works for those most likely to be left behind.

Question 4:

How and why are some initiatives more successful in achieving progress towards SDG-17-related outcomes?

Why are trade agreements between high- and low-income countries less effective? Regional and preferential trade agreements between high- and low-income countries are less effective because non-tariff barriers, such as regulations for food and other products, reduce the ability of LICs to increase their exports. Limited manufacturing capacity in LICs also reduces their ability to benefit from regional trade agreements. Global trade agreements have smaller impacts on exports from LICs because of lower institutional trust and smaller product differentiation. However, in the long term, LICs may be able to learn how to navigate non-tariff barriers, after which they can generate increases in exports following regional and preferential trade agreements.

Why are VAT taxes more effective in middle-income than in low-income countries? VAT taxes have a greater impact on tax-revenue in MICs because LICs have lower tax-collection capacity and a smaller formal sector. Community-based tax data collection can help to maximize government revenue from the informal sector in LICs.

Why are the effects of green finance initiatives too small to achieve acceleration in green technology adoption in large Asian countries? Green finance initiatives are unlikely to have sufficient resources to substantially change the behaviour of highly polluting firms. Current initiatives do not provide sufficient incentives to generate large impacts on innovation.

Why do South-South and trilateral partnership initiatives show more promise than North-South partnership initiatives to achieve progress towards SDG-17-related outcomes? South-South and trilateral partnerships show more promise to achieve SDG-17 outcomes because low- and middle-income partners often have similar experience and interests (e.g., regional integration and economic growth), which enables trust, mutual ownership and equal power relationships. Including such features can contribute to achieving SDG-17 progress, regardless of the partnership objectives or composition (i.e., South-South vs. North-South partnerships or trilateral cooperation model). This can motivate partners to fund and institutionalize activities over the long term. Although North-South partnerships are not necessarily ineffective at achieving progress towards/ SDG outcomes, evidence shows that Northern partners often fail to design informed, contextualized initiatives based on equal power relationships, that account for all partner priorities.

Why is capacity-building more effective when initiatives focus on concrete outcomes? Capacity-building initiatives that identify and focus on mutually agreed outcomes are more effective because partners understand how their participation will address concrete needs and are motivated by addressing those needs. Initiatives that focus only on activities and outputs, such as sharing of knowledge and resources, often fail to identify how the efforts will lead to actual increases in capacity. Conversely, initiatives that design an approach to institutionalizing the support needed for further follow through are more likely to have long-term success. This is also evident in engagements with private partners, who are more likely to partner with low-income partners when there is an explicit link to long-term growth or expansion for their business.

Areas for future research, evaluation and synthesis

The evidence available from systematic reviews on the impact of SDG-17 initiatives on other SDG outcomes shows that it is likely that SDG-17 initiatives *can* contribute to economic growth. However, the evidence is insufficient to reliably assess *which* SDG-17 initiatives have positive impacts on other SDG outcomes, for each initiative and outcome. SDG-17 progress can result in significant improvements in economic growth due to trade liberalization. At the same time, the elimination of trade barriers as part of SDG-17 objectives could result in increasing greenhouse gas emissions and other environmental challenges. In addition, there is no consensus on the impact of government debt on economic growth, and only limited evidence exists on the impacts of mobile financial inclusion on consumption and income. Addressing these evidence gaps is likely to require a learning agenda that includes impact, performance and process evaluations, including evaluations focused on some of the pressing global challenges. These challenges include: the public debt crisis; climate change; slowing global trade; surges in energy prices; and limited ODA from historical donors (reaching 0.36 percent of gross national income in 2022). Recent increases in ODA were primarily driven by domestic spending on refugees and aid for Ukraine (ECOSOC, 2023), suggesting that ODA increases may not be sustainable. To address some of these challenges, it is also critical to examine the interlinkages between different SDGs.

These evidence gaps show the importance of conducting additional evidence syntheses on the People, Planet, Prosperity and Peace pillars of the SDGs. The Coalition can play a critical role in providing the required evidence to the global community. Access to this evidence will support stakeholders to make evidence-based decisions about investments in initiatives that can accelerate progress on the SDGs.

Introduction

The 17 Sustainable Development Goals (SDGs) are central to the 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015 (United Nations, 2022). The SDGs serve as an urgent call for action to encourage all countries to work on ending poverty while improving health and education, reducing inequality, stimulating economic growth and addressing climate change. With 2030 approaching, it is critical to monitor progress towards the SDGs and change course where SDG indicators are lagging. In fact, the 2022 SDG report indicates that “the 2030 Agenda for Sustainable Development is in grave jeopardy due to multiple, cascading and intersecting crises” such as the COVID-19 pandemic and climate change (United Nations, 2022, pp. 3).

The limited progress towards the SDGs shows the importance of developing evidence-based and practical recommendations for acceleration. The SDGs were accompanied by a monitoring and evaluation framework, with 248 indicators to measure progress across the SDGs. Measuring progress towards these indicators, and assessing which programmes, policies and interventions are most successful in achieving it, can contribute to the development of evidence-based and practical lessons for accelerating progress on the SDGs.

To contribute to this objective, the Global SDG Synthesis Coalition (hereinafter “the Coalition”) commissioned American Institutes for Research (AIR) to design and implement an evidence synthesis. This synthesis examines what works, why and in what context in achieving and accelerating the Partnership Pillar of the SDGs, which covers SDG-17. SDG-17 has five components: trade, finance, technology, systemic issues, and capacity-building (United Nations, 2022).

AIR designed a mixed-methods evidence synthesis that includes:

- (a) a text analysis of voluntary national review (VNR) data combined with in-depth statistical analyses of SDG-17 indicators of selected case study countries⁷;
- (b) an evidence synthesis of impact evaluations and specifically randomized controlled trials (RCTs), quasi-experimental studies and panel data analyses focused on trade, finance, technology, systemic issues and capacity-building; and
- (c) an evidence synthesis of performance and process evaluations focused on trade, finance, technology, systemic issues and capacity-building that were independently conducted or commissioned by United Nations entities and development partners from multilateral or bilateral organizations, civil society organizations (CSOs), or the private sector.

7 The text analysis serves to identify key themes in the VNRs as well as any gaps in coverage. The analysis uses data-driven text analysis methods in the field of text mining, which can help identify areas that countries consider important enough to consistently cover in their reports, as well as the distribution of “sentiment” in these reports (Silge and Robinson, 2017). More detail about the text analysis is available in the methodological protocol (de Hoop et al., 2023) and the rest of the report.

The intended users of the synthesis include all United Nations Member States, United Nations agencies, multilateral development banks, international financial institutions, researchers, evaluators and other stakeholders focused on the achievement of SDG-17 objectives.

The synthesis was organized to focus primarily on the trade, finance and technology aspects of SDG-17, as well as statistical capacity-building and capacity-building for the generation and use of quantitative and qualitative evidence. Evaluations focusing on the role of capacity-building and systemic issues in achieving progress towards trade, finance and technology objectives under SDG-17 were also included. Finally, lessons were generated on the performance of activities related to support for national plans to implement all of the SDGs, including through North-South, South-South and triangular regional and international cooperation (target 17.9 on capacity-building), and related to the mobilization and sharing of knowledge, expertise, technology and financial resources through multi-stakeholder partnerships (target 17.16 on systemic issues).

This report presents 17 lessons based on the findings of the VNR data analysis, deviance assessment and evidence syntheses of impact and performance and process evaluations. The report opens with a description of the research questions and methods, followed by descriptions of lessons on trade, finance, technology, systemic issues and capacity-building and cross-cutting issues. It then presents a summary of results to address the guiding synthesis questions and areas for future research, evaluation and synthesis, based on evidence gaps and policy priorities. The Protocol describes the methods in more detail ([de Hoop et al., 2023](#)).



01

Summary of research questions and methodology

1.1 Synthesis questions

The evidence synthesis addressed the following broad synthesis questions:

1. Which SDG-17 targets are currently on track, and which are lagging?
2. Which countries (across contexts) have made the most progress on SDG-17 and why?
3. Which initiatives are most effective in improving and accelerating SDG-17 indicators and targets?
4. How and why are some initiatives more successful in achieving progress towards SDG-17-related outcomes?

AIR used different approaches to address the four synthesis questions. To address the first question, AIR relied on an existing report examining progress in achieving SDG objectives (Sachs, 2023). For the second research question, AIR analysed secondary data on SDG-17 indicators and combined those with case studies of seven diverse countries and an analysis of VNR data. To address the third and fourth research questions, the team used a synthesis of impact and performance and process evaluations, respectively.

Table A-1 in Annex A presents more detailed research questions.

1.2 Summary of methods

To address the synthesis questions, AIR combined a systematic database search⁸ with a request for papers from management group members offering a critical appraisal of the evaluations identified and a synthesis of impact, performance and process evaluations that met inclusion criteria. These findings were triangulated with case studies of countries that have made the most progress on SDG-17 goals, using a positive deviance assessment with case studies of seven countries and a text analysis of VNR data.

1.2.1 Summary of inclusion criteria

Trade, finance and technology were selected as the three focus areas of the review, based on a comprehensive scoping of the evidence. There is a wealth of evidence on these areas from different studies directly related to SDG-17. The goals and indicators of SDG-17 for capacity-building and systemic issues are often applicable across different SDGs. As a result, the studies which were returned for these areas tended to cover topics better suited to review under other SDG indicators (e.g., capacity-building efforts in health or education). These, or other studies with a focus on other SDG indicators (i.e., technology-aided agriculture, education or health programmes, microfinance or agricultural extension programmes), were not included.

Studies or evaluations were included that related to capacity-building and systemic issues, with a focus on SDG-17 indicators. This included support for national plans to implement all the SDGs, including through North-South, South-South and triangular regional and international cooperation (target 17.9 on capacity-building), and related to the mobilization and sharing of knowledge, expertise, technology and financial resources through multi-stakeholder partnerships (target 17.16 on systemic issues). Again, studies or evaluations that focused on other SDG indicators were not included. Reviews of partnership portfolios that looked collectively at outcomes across many SDGs were also excluded. Exhibit 1 summarizes the general inclusion criteria. The protocol provides more detailed inclusion criteria related to the five SDG-17 components (de Hoop et al., 2023).

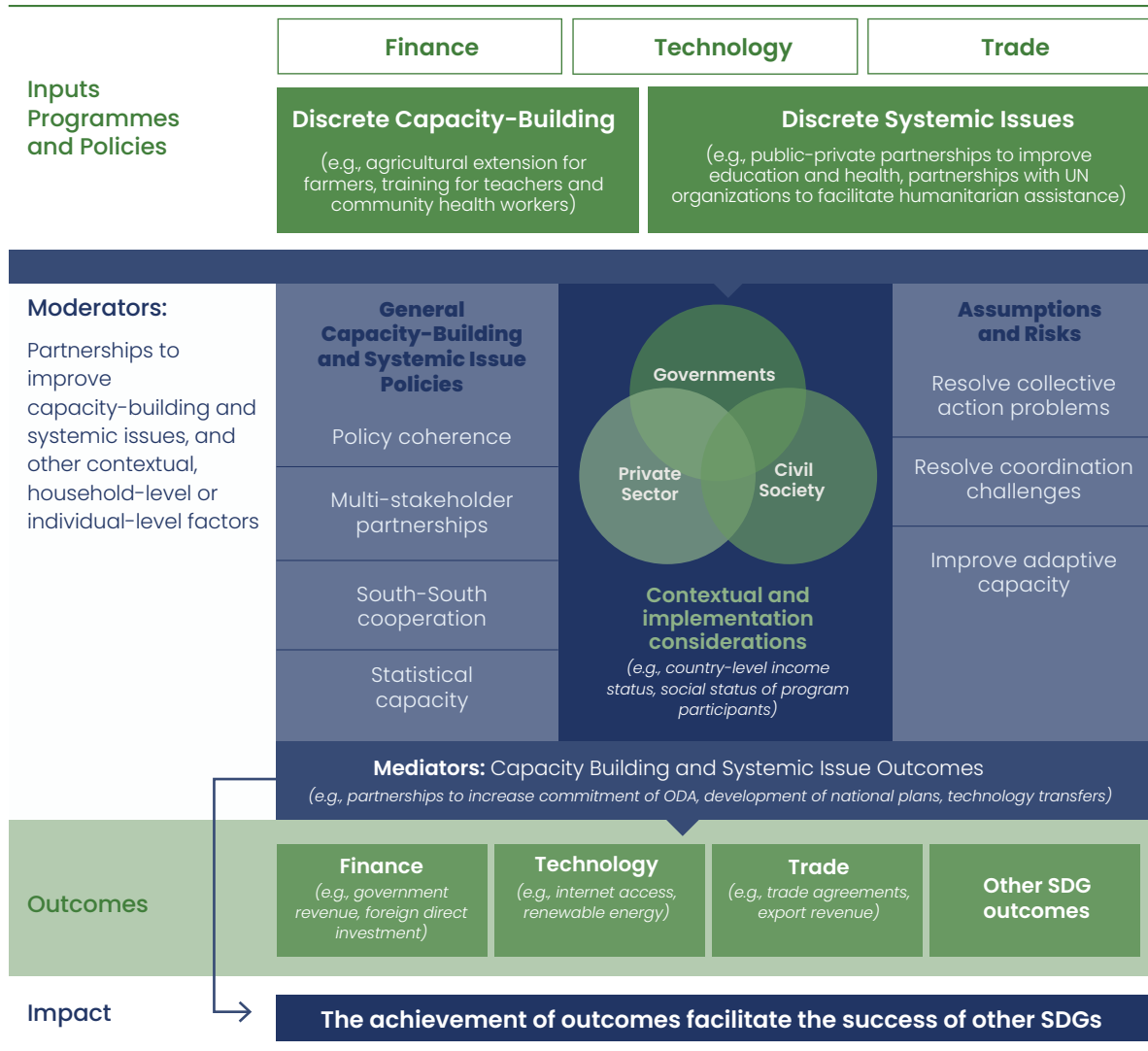
⁸ The final database searches were conducted in April and May 2023. Papers added after this date are not included in the review. Relevant papers may be added to the evidence as they emerge after this review has been published.

Exhibit 1. Inclusion criteria

Topic	Inclusion criteria
Publication dates	Impact evaluations published between 2015 and 2022 and performance and process evaluations published between 2018 and 2022
Publication accessibility	Published in English, Spanish or French Publicly available or shared with AIR
Initiative focus	Targets initiatives with clear objectives and strategies that are related to the components of the Partnerships Pillar (i.e., SDG-17), including trade, finance, technology, systemic issues and capacity-building
Evaluation focus	Assesses the relevance, effectiveness, efficiency, sustainability and impact of a policy, programme or initiative in achieving SDG-17 related objectives, focusing on trade, finance, technology and statistical capacity-building outcomes
Level of focus	Primary evaluations: focus on initiatives and outcomes that strictly pertain to SDG-17 components Secondary evaluations: (e.g., systematic reviews, evidence syntheses, literature reviews): focus on other SDG outcomes (i.e., economic growth, poverty reduction, gender equality, education, health) Exclude: primary evaluations that focus on other SDG pillars and initiatives such as microfinance, cash transfers, self-help groups, savings groups, technology-aided education and health programmes that seek to improve other SDG outcomes (e.g., education, health, poverty reduction)
Population of interest	Includes populations in low- and middle-income countries for trade, finance, technology and statistical capacity-building initiatives Includes populations in high-income countries for SDG-17 indicators with an emphasis on relationships between HICs and low- and middle-income countries
Method	For evaluations on the impact of SDG-17 initiatives on SDG-17 outcomes: include impact evaluations (RCT or quasi-experimental study with a comparison group), regression analyses with a comparison group and panel data, cross-country regressions that use panel data For evaluations on the link between trade, finance and technology and systemic issues and capacity-building: include impact evaluations, process evaluations and performance evaluations using primary data For evaluations on the impact of SDG-17 initiatives on other SDG outcomes: include systematic reviews and other evidence syntheses

Inclusion criteria were based on a conceptual framework that links SDG-17 initiatives to SDG-17 and other SDG outcomes. Exhibit 2 presents the conceptual framework, which includes the five SDG-17 components, three key moderators and mediators, the SDG principles of Universality, Coherence, Integration and Leaving No One Behind and the linkages between SDG-17 and other SDG outcomes.

The protocol presents the inclusion criteria in more detail. It also includes a more detailed description of the conceptual framework and how it guided the database search, evaluation mapping and evidence synthesis (de Hoop et al., 2023).

Exhibit 2. Conceptual Framework

1.2.2 Summary of impact evaluation synthesis methods

Using the search strategy of the protocol, AIR identified impact evaluations in the web of science and 3ie databases. The study team then uploaded these studies to the Evidence for Policy & Practice Information (EPPI) Reviewer, before screening the titles and abstracts for eligibility according to the protocol. Annex H presents more detail on the screening process.

Next, AIR coded and conducted risk of bias assessments for the impact evaluations selected for inclusion, followed by a narrative quantitative synthesis for most studies (with effect size calculations for a selection of studies) and a quantitative meta-analysis for trade liberalization.⁹ AIR coded the studies for methodology (RCT vs quasi-experimental study), SDG-17 category (trade, finance, technology, systemic issues and capacity-building),

⁹ The meta-analysis methods are presented in the protocol. Additional meta-analyses were not conducted because the large variation in the programme types and outcomes would limit lessons learned from such an exercise. However, it may be feasible to conduct meta-analyses for some additional initiatives, considering this limitation.

inclusion of a capacity-building, systemic issue or partnership focus, region and country, initiative type and outcome measure. Studies were also coded based on whether they included a focus on populations likely to be left behind (i.e., women, youth, low-income groups, people with disabilities, indigenous peoples, or other vulnerable populations).¹⁰ Annex H presents a description of the risk of bias assessment.

Descriptive statistics of the studies were analysed by examining the number of studies with specific characteristics and linking those statistics to the quantitative narrative synthesis. AIR primarily focused on analysing types of initiatives with sufficient studies for a quantitative narrative synthesis, such as green finance initiatives, trade liberalization and trade restrictions, export subsidies and other export promotion measures, broadband internet, taxation and programmes to encourage FDI. Table B-1 in Annex B presents details of the programmes with sufficient impact evaluations to merit a large emphasis in the review. Lessons were also included when the findings were considered relevant for ongoing discussions about the most effective manner to accelerate SDG-17 objectives, even if the number of supporting studies was relatively small. In all instances, the report presents a narrative discussion of evidence gaps when evidence is insufficient.

Where possible, findings were triangulated with findings from performance and process evaluations and case studies. Table B-1 in Annex B also includes some details on programmes for which evidence of effectiveness was available from performance and process evaluations and case studies.

Further details are presented on the screening, coding and risk of bias assessment of the impact evaluations in the protocol (de Hoop et al., 2023).

1.2.3 Summary of performance and process evaluation synthesis methods

Using the search strategy described in the protocol, AIR identified performance and process evaluations in databases of the United Nations Evaluation Group, Development Assistance C Evaluation Resource Centre (DEReC) and the World Bank Independent Evaluation Group. Using Excel, the study team combined these articles with the evaluations shared by United Nations partners and the management group to screen the titles and abstracts against the inclusion criteria. From these, AIR then reviewed the full text of those evaluations for which the study team could not determine relevance based on titles and abstracts alone. In line with the protocol, any evaluations published before 2018 were removed, and the remaining evaluations assessed against the inclusion criteria.

The methodological quality of all performance and process evaluations that met the inclusion criteria was assessed using a qualitative review protocol including indicators adapted from quality appraisals for evaluations across a range of United Nations agencies. These include the United Nations Children's Fund (UNICEF) Global Evaluation Reports Oversight System (UNICEF, 2020), the UNDP evaluation quality assessment (UNDP IEO, 2021), the evaluation criteria and ratings of the United Nations Environment Programme (UNEP, n.d.), the United Nations Population Fund (UNFPA) quality assurance and assessment tools (UNFPA, 2020) and the World Food Programme (WFP) evaluation quality assurance system (WFP, 2020).¹¹ Based on guidance from Cochrane (Noyes et al., 2019),¹² the quality assessment process involved reporting on 16 methodological strengths and limitations that may affect the review findings, rather than reporting quality.

Annex H presents more details on the analysis methods and the protocol includes additional details on the screening, coding and quality appraisal of the performance and process evaluations (de Hoop et al., 2023).

¹⁰ "Leave No One Behind" is a universal value of the United Nations Sustainable Development Cooperation. It is important to give careful focus to populations who are likely to be left behind due to discrimination, poverty or other inequalities. Among others, these groups may include women, people living in poverty, youth, people with disabilities, and indigenous people groups.

¹¹ Annex F presents the quality appraisal tool.

¹² <https://training.cochrane.org/handbook/current/chapter-21#section-21-8>

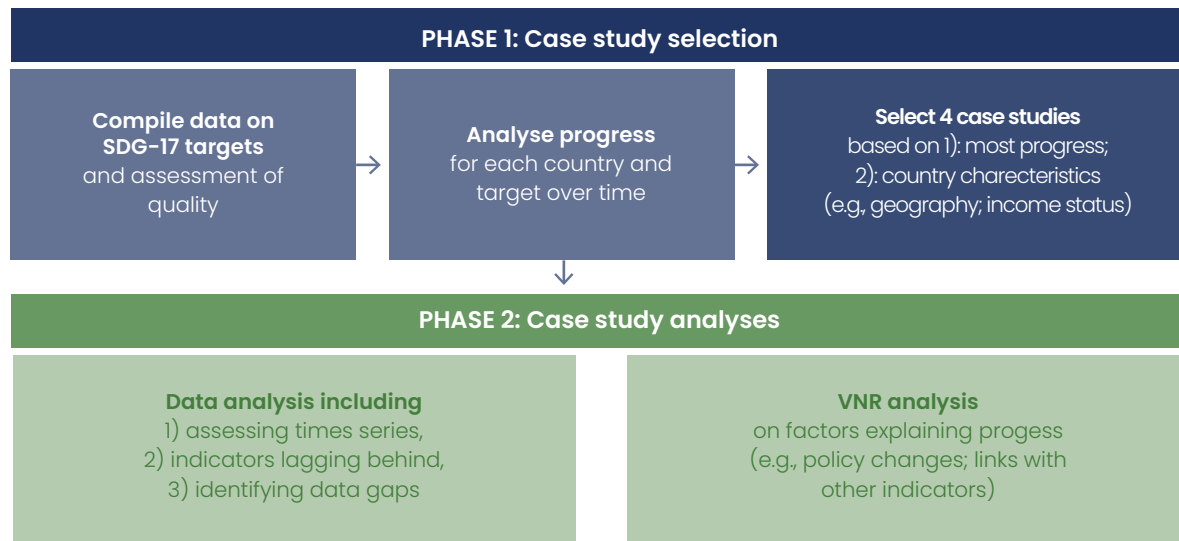
1.2.4 Systematic reviews

Systematic reviews with a focus on how SDG-17 programmes could influence other SDG objectives were also included. This was to examine how progress towards SDG-17 objectives could enable the achievement of other SDG objectives, and to assess potential trade-offs between different SDG goals. These systematic reviews are discussed in the section addressing the research questions.

1.2.5 Case studies

A positive deviance assessment was conducted that included case studies of seven diverse countries with representation from each region and income-level. The deviance assessment consisted of two phases, namely, case study selection and case study analysis (see Exhibit 3). As part of the deviance analysis, AIR incorporated the assessment of VNRs to help explain factors associated with progress in achieving SDG-17 indicators.

Exhibit 3. Phases of the positive deviance analysis and VNR assessment



Case study country selection

Data from the SDG tracker were analysed to identify countries that had made considerable progress towards achieving SDG-17 targets.¹³ This analysis enabled AIR to rank countries in their progress towards SDG-17 by region, based on multiple years of data for each country. To analyse the data, AIR assessed percentage changes in the country-level indicators (e.g., government revenue as a percentage of GDP, proportion of individuals using the internet) from the SDG tracker over the last five years for which data were available (from 2017 to 2022).¹⁴ AIR retrieved multiple years of SDG tracker data for each country.¹⁵

¹³ <https://sdg-tracker.org/> provides a comprehensive set of data on all the SDG-17 targets.

¹⁴ For this analysis, AIR selected all indicators that had data points over multiple years; and for which it was possible to measure percentage changes (i.e., indicators in which percentages or amounts could change year by year, rather than indicators that were answered by 'yes' or 'no'). Based on these criteria, 16 of the 28 SDG-17 (sub-)indicators were included. Annex F presents the 28 SDG-17 (sub-)indicators.

¹⁵ The protocol provides an overview of the data, timespan available, original database, and source of the data.

To identify positive deviance cases in SDG-17 performance,¹⁶ countries were ranked based on a weighted index of their performance on SDG-17 indicators. The country that ranked first on a particular indicator received 5 points, the country ranked second received 4 points and so on. Exhibit C-1 in Annex C presents the top six countries by region over the last five years and additional criteria for the selection of the case studies.

AIR selected the following countries for the case studies:

- (a) Peru, an upper middle-income country that scored the highest in the Americas over the last ten years and ranked second in the last five years (AIR did not select Mexico because it scored much lower over the last ten years).
- (b) Myanmar, a lower-middle-income country that scored the highest in East Asia and the Pacific over the last five years.
- (c) Uzbekistan, a lower-middle income country that scored the highest in Europe and Central Asia over the last five years.
- (d) United Arab Emirates, a high-income country that ranked second in Middle East and North Africa over the last five and ten years (AIR did not select Iraq because of the conflict situation).
- (e) India, a lower middle-income country that scored the highest in South Asia over the last five years.
- (f) Madagascar, a low-income country that scored the highest in sub-Saharan Africa over the last five years.
- (g) Ireland, the highest scoring high-income historical donor country.

For the analysis, AIR assessed the case studies by triangulating the outcomes of the statistical results with document reviews and/or additional secondary data analysis.

1.2.6 VNR analysis

An exploratory text analysis of 174 available VNRs identified the key themes in the most recent reports as well as any gaps in coverage, using data-driven text analysis methods in the field of text mining. This helped to identify areas that countries consider sufficiently important to consistently touch upon in their reports, as well as the distribution of “sentiment” in the reports (Silge and Robinson, 2017). The analyses served to identify potential trends in the case study countries associated with their “above-average” performance on certain SDG indicators, or reasons for their underperformance on these indicators relative to others. Annex H presents more detail on the text mining analysis tools applied.

1.2.7 Limitations

The evidence synthesis generated important lessons on how to accelerate progress towards SDG-17 goals. However, the ambitious timeline that enabled AIR to achieve two key policy objectives (presenting during the high-level political forum on sustainable development and the SDG summit) led to some inherent limitations that are common in rapid evidence syntheses. Exhibit 4 summarizes these limitations and how AIR addressed them.

¹⁶ A positive deviance assessment is a systematic process used to identify and understand positive deviant behaviours or practices. It refers to those who have achieved better outcomes or solutions to a particular problem than their peers, despite facing similar challenges and constraints (Pascale, Sternin and Sternin, 2010).

Exhibit 4. Limitations

N	Limitation	Method to address the limitation
1	AIR primarily focused on trade, finance and technology in the impact evaluations and, to a more limited extent, on capacity-building and systemic issues because of the small number of impact evaluations available on these.	AIR focused on analysing capacity-building and systemic issues initiatives in the performance and process evaluations.
2	The impact evaluations and performance and process evaluations often focused on different initiatives, which limited opportunities for triangulation. The impact evaluations often focused on large-scale initiatives, while the performance and process evaluations usually emphasized smaller-scale programmes.	AIR triangulated where feasible and included additional triangulation based on the case studies and VNR reports.
3	Because of the ambitious timeline and the two key policy objectives, only one researcher was able to assess the risk of bias of every impact evaluation and the quality of each performance or process evaluation. It is best practice to have two researchers independently review every study.	AIR used appropriate methods for rapid syntheses by developing a common understanding of the risk of bias assessment and conducting interrater reliability checks on the quality appraisals for two papers of the performance and process evaluations to ensure a common understanding of the ratings and discuss any questions posed by researchers on the two studies.
4	The large body of descriptive qualitative evidence in performance and process evaluations and the variation in initiatives' approaches and outcomes limited the ability of AIR to conduct in-depth analyses on how approaches to partnerships and capacity-building vary for each type of initiative.	AIR reported findings from the thematic synthesis on partnerships at a higher level, with lessons that apply across the varying types of initiatives. In addition, based on the data, it is unlikely that there is notable variation in approaches to partnerships and capacity-building that is specific to initiatives.
5	AIR did not formally test for publication bias.	Studies were included from published and grey literature as well as evaluations conducted and commissioned by the United Nations and bilateral organizations to account for publication bias.



02

Characteristics of the included studies

This section discusses the characteristics of the impact, performance and process evaluations that were included. Evidence mapping can illustrate where strong evidence is available and also where it is limited (Annex K).

2.1 Characteristics of included impact evaluations

Of the 20,774 studies found through the search, 183 impact evaluations were identified as eligible for inclusion. First, 9,091 studies were excluded after abstract screening, followed by the exclusion of another 10,783 evaluations based on the machine learning model. Next, AIR selected 611 evaluations for full-text screening of which 272 were included for coding. During coding, AIR excluded a further 89 evaluations based on the inclusion criteria, resulting in the selection of 183 impact evaluations. Exhibit I-3 in Annex I presents a Prisma diagram illustrating how the final selection of impact evaluations was made.

Almost all included impact evaluations (n = 183) use quasi-experimental methods. AIR included 18 RCTs and 165 quasi-experimental evaluations.

Most of the impact evaluations included a focus on initiatives and outcomes related to trade, finance or technology. Very few focused on capacity-building or systemic issues. Of the 183 evaluations that were included, 94 studies examine trade initiatives or outcomes, 75 explore technology initiatives or outcomes, and 75 are dedicated to finance-related initiatives or outcomes. By comparison, only two studies focus on capacity-building and one focuses on systemic issues.

A substantial number (n = 56) of the included studies examine the intersection of two or more SDG-17 categories. For example, some studies focus on the impact of trade liberalization on the submission of patents, while others examine the impact of taxation on export values or the impact of green finance on FDI.

The included impact evaluations seldom study the effects on those most likely to be left behind (e.g., women, youth), focusing instead on macroeconomic and/or population-level effects without distinguishing between subgroups and with very little emphasis on the targeting of programmes. Of the impact evaluations included, 12 studies offer additional analysis on women, two on youth aged under 19 years, four on youth aged 20 to 24 years, and five on low-income individuals or households.¹⁷

The included impact evaluations show a wide diversity of programme types and outcomes. Some examples of frequently studied initiatives include: trade liberalization policies (i.e., regional trade agreements, bilateral trade agreements); anti-dumping policies and other trade barriers; export promotion policies (e.g., export subsidies, clustering policies); green finance initiatives (e.g., green credit, green insurance); tax reforms (community-based tax collection, VAT taxes); incentives and nudges to pay taxes; promotion of FDI; and the roll-out of broadband infrastructure. Some examples of frequently included outcomes are tax revenues, export volumes and values and the number of green innovation patents. Exhibits 5 and 6 summarize the most frequently studied programme types and outcomes in the impact evaluations.

¹⁷ This finding does not suggest that the programmes did not focus on these groups. However, where evaluations did not focus specific attention on, or report on, these subgroups, the ability of AIR to generate lessons on equity was limited.

Exhibit 5. Number of studies per intervention category

Programme type	
Finance	
Environmental taxes	4
Informal business registration	1
Value added taxes	11
Tax messaging	12
Tax reforms	30
Technology	
Green finance	9
Mobile money	6
Broadband infrastructure	13
Other technology promotion	26
Trade	
Trade liberalization	49
Trade sanctions	4
Infrastructure for trade	19
Anti-dumping measures	8
Other trade restrictions	9
FDI promotion	9
Export promotion	16
Other interventions	
Other interventions	11

Exhibit 6. Number of studies per outcome category

Outcome category	
Finance	
Foreign direct investment	24
Tax revenue	34
Technology	
Green patents	25
Technology and innovation	42
Digital finance	6
Trade	
Export	58
Import	25
Other trade outcomes	2
Other interventions	
Other outcomes	19

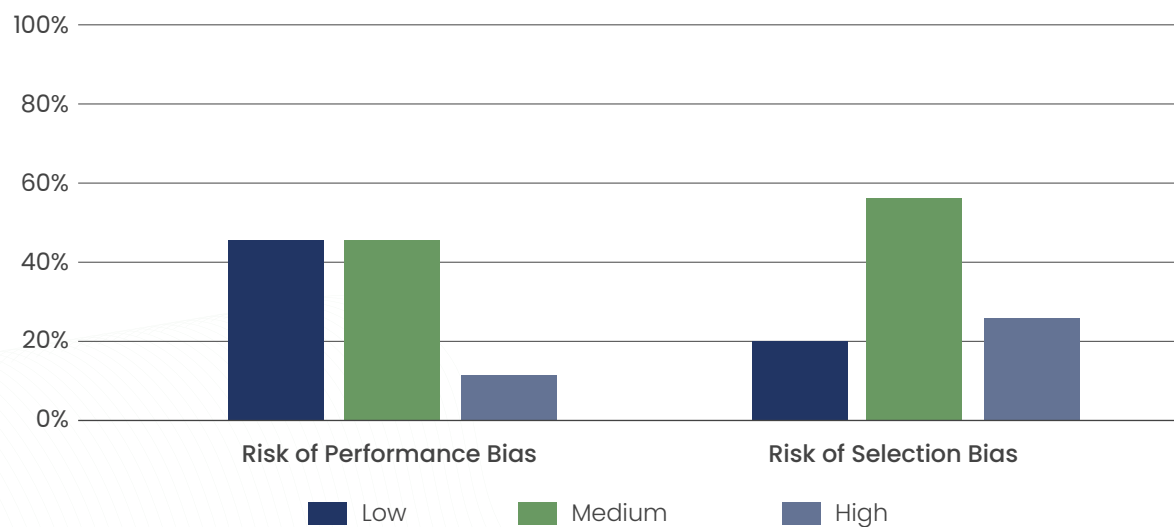
In general, most SDG-17 evaluations relate to macro-level initiatives, which may create challenges when aiming to examine impacts on subgroups such as women, youth and low-income households. More disaggregated data collection (i.e., by collecting data on the sex, age and income of business owners) would enable a stronger focus on subgroups. However, it would probably be more challenging to conduct such analyses for impact evaluations of SDG-17 initiatives than for impact evaluations of education, health and social protection initiatives.

Most of the impact evaluations that were included concentrate on East Asia and the Pacific, with comparatively few evaluations in other regions. Of the 183 impact evaluations that were selected, 122 focus on East Asia and the Pacific, followed by sub-Saharan Africa (n = 37), Latin America and the Caribbean (n = 31), Europe and Central Asia (n = 29), South Asia (n = 28), the Middle East and North Africa (n = 22) and North America (n = 11).¹⁸

A majority of the experimental and quasi-experimental studies that were included focus on China. Of the 183 eligible impact evaluations, over half of the studies estimate the impact of policies and programmes in China (55 percent). One likely reason for the large number of quasi-experimental impact evaluations focused on East Asia and the Pacific, and especially China, is the country's experience with "experimental gradualism" (Heilmann, 2008; Rodrik, 2018a). China has introduced many experimental regulations, experimental points and experimental zones that enable the country to learn from its previous experiences. It is likely that this has allowed researchers and evaluators to conduct various quasi-experimental studies to examine the effects of China's SDG-17 initiatives. In addition, it is likely that the higher number of quasi-experimental studies in China is driven by expansion in the number of Chinese researchers (Marginson, 2022).

The impact evaluations included primarily have a low to medium risk of performance bias and a medium risk of selection bias. More specifically, of the 183 impact evaluations that were selected for inclusion, 45 percent, 45 percent and 10 percent have a low, medium, or high risk of performance bias, respectively. By contrast, over half of the studies have a medium risk of selection bias (56 percent), followed by high risk (25 percent) and low risk (19 percent) (Exhibit 7).¹⁹

Exhibit 7. Risk of bias assessment results



¹⁸ For studies with a multi-region or global focus, all regions are counted, which is why the sum across all regions exceeds the number of included studies.

¹⁹ Selection bias is based on the quality of the identification strategy to determine causal effects and assessment of equivalence across the treatment and control or comparison group. Performance bias is based on the extent of spillovers or contamination of the control or comparison group. AIR rated as low risk of selection-bias: RCTs with a large sample size and low attrition; and quasi-experimental studies with a credible identification strategy, convincing tests for parallel trends, and a large sample size. RCTs and credible quasi-experimental studies with smaller sample sizes or threats to the identification strategy were rated as medium risk. Quasi-experimental studies without a credible identification strategy were rated as high risk. We rated studies without clear risk of spillovers or contamination as low risk of performance bias, studies with some risk of spillovers as a medium risk, and studies with clear contamination or spillover challenges as high risk. While we did not exclude studies with a high risk of bias, we discounted these studies in the interpretation of the results.

2.2 Characteristics of included performance and process evaluations

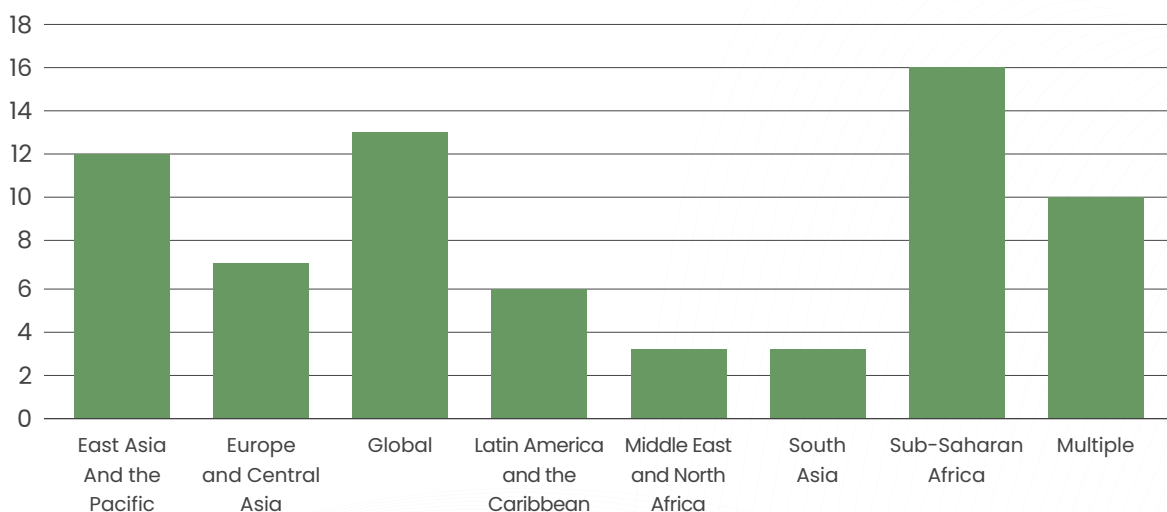
Of the 3,396 screened evaluations, AIR found 70 performance and process evaluations that met the inclusion criteria. AIR included 1,063 evaluations for full-text screening. Of these, 72 were included for full-text coding, after which two evaluations were excluded as more than eight of their 17 quality criteria were rated as “low” or “not mentioned.” Exhibit I-3 in Annex I presents the Prisma diagram which illustrates the selection process of the performance and process evaluations that were included.

Most evaluations focus on systemic issues (n=20), followed by trade (n=16), finance (n=13), technology (n=13) and capacity-building (n=8). Despite fewer evaluations having capacity-building as a primary focus, 27 initiatives have capacity-building as a secondary topic.

Most performance and process evaluations focus on MICs. Of the single- and multi-country evaluations that focus on one income group, 10 examine initiatives in upper middle-income countries, 19 in lower middle-income countries, and six in LICs. Of the 70 evaluations, 32 focus on a single country,²⁰ with no countries having notably more evaluations than others, while 13 focus on initiatives aiming to have a global impact. Of the evaluations that focus on one region, most come from sub-Saharan Africa, while few focus on South Asia or on the Middle East and North Africa (see Exhibit 8).

Like the impact evaluations, performance and process evaluations had notable gaps in the consideration of vulnerable subgroups. Initiatives and their corresponding process and performance evaluations primarily considered gender (n=24). Some projects, predominantly technology-related interventions, considered rural populations (n=9) and some considered youth (n=7). However, projects and evaluations rarely addressed the inclusion of indigenous populations (n=2) or people with disabilities (n=1). In Section 5.5 of this report, we assess the equity implications of the initiatives in more detail.

Exhibit 8. Regional distribution of performance and process evaluations



Source: author's calculations

20 Single country evaluations include partnership initiatives in which the outcomes focus on one country.

Exhibit 9. Topic areas of performance and process evaluations

Primary Topic Area	Examples of Included Initiatives	Number of Included Evaluations	Secondary Topic Area	Number of Included Evaluations			
Finance	Aid dependency Blended finance Budget support Clean energy finance Domestic finance Domestic revenue Financial management Foreign direct investment Investment promotion Remittances	13	Capacity-building	5			
			Systemic issues	2			
			Technology	2			
			None	4			
			Trade	Export competitiveness Export promotion International export standards Regional and international trade Tariff barriers Trade barriers Trade support	16	Capacity-building	7
						Finance	1
						Technology	1
						None	7
						Technology	Digital transformation Energy technology Internet access Internet use Mobile money Solar power Technology diffusion
Systemic issues	3						
None	5						
Capacity-building	Statistical capacity-building Capacity-building of other SDG-17 areas (where the outcomes focus on capacity)	8	Systemic issues	3			
			Trade	3			
			None	2			
Systemic issues	Development cooperation Economic cooperation Multi-stakeholder partnership North-South partnership Policy coherence Public-private partnership SDG policy South-South partnership Triangular or trilateral partnership	20	Capacity-building	10			
			Finance	1			
			Trade	2			
			None	7			



03

Results

The report showcases 17 key lessons that have emerged from the evidence synthesis, accompanied by corresponding findings that underpin these lessons. Each section presents a lesson, after which the supporting findings are explained with triangulated evidence from impact evaluations, performance and process evaluations, the positive deviance assessment, the case studies and the analyses of VNR data. The section starts each lesson with a table presenting the main topic from which the lesson was drawn (e.g., trade, finance, technology, systemic issues, capacity-building, equity and VNR data), and the methods used to generate the lesson and supporting sub-findings. In the presentation of the findings, example papers are cited which illustrate specific points.²¹

3.1 Lessons on trade

This section discusses the lessons and supporting findings on trade. Lessons are presented on the effectiveness of global and regional trade agreements, bilateral trade agreements and export subsidies to examine which strategies succeed in accelerating SDG-17 trade objectives.

Countries use different policy instruments to increase exports, ranging from regional trade agreements to export subsidies and cluster development policies for promoting exports. Trade agreements are treaties signed by countries to define the rules of trade for all signatories and thereby facilitate trade flows (Rodrik, 2018b). Export subsidies are government policies to subsidize the export of goods, thus discouraging sales in the domestic market (Kurjanska and Risse, 2008). Cluster development policies group together businesses in a geographic zone to facilitate coordination for innovation, which can, in turn, enable firms to increase their exports (Aboul & Pereira, 2020). The impact evaluations and case studies include evidence about the effectiveness of these policy instruments in low- and middle-income countries. Performance and process evaluations of initiatives to build capacity in trade indicate a need to use several complementing approaches to increase trade in LICs.

Lesson 1: Regional trade agreements are more effective than export subsidies in increasing the value of exports in MICs. Regional trade agreements seem to have smaller effects on exports in LICs than in MICs, though major evidence gaps remain.

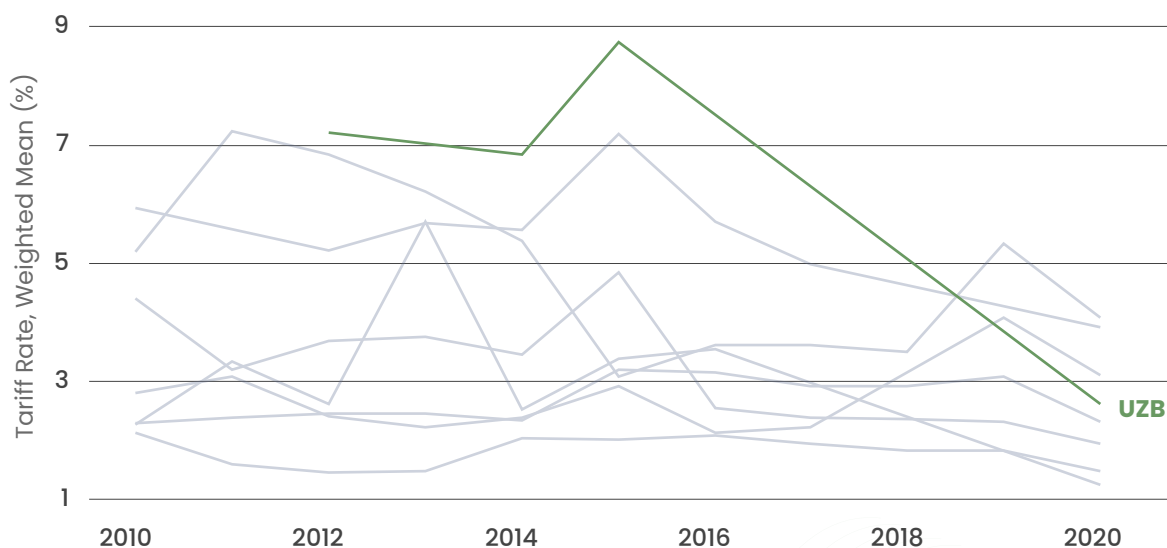
Exhibit 10. Lesson 1 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade	<ul style="list-style-type: none"> Impact evaluations Case studies Performance and process evaluations 	<ul style="list-style-type: none"> Regional trade agreements have shown promise in accelerating export values in MICs. While export subsidies were moderately effective in increasing exports in some MICs, they have not accelerated exports and were ineffective in some cases. Regional trade agreements seem to have a smaller effect on LICs in sub-Saharan Africa, though major evidence gaps remain. While only limited evidence exists on cluster-development policies, evidence from Latin-America and China suggests they have positive effects on exports in some cases.

²¹ These citations are not intended to be comprehensive; in most cases, other uncited papers also support the findings.

Regional trade agreements have shown promise in accelerating export values in MICs: The case study of Uzbekistan (selected as part of the positive deviance assessment) suggests that strengthening regional and global trade has been instrumental in increasing its exports. Joining the free-trade zone of the Commonwealth of Independent States in 2013, the associated tariff reductions and price liberalization are likely to have contributed to the ability of Uzbekistan to accelerate its economic growth (Izvorski et al., 2021). Predictions now suggest that it may become one of the fastest-growing economies, in part because of cotton, gold and electricity exports (International Trade Administration, NA). This finding shows that regional trade agreements are not only effective in increasing export values, but may also transform economies to accelerate exports and possibly economic growth. Exhibit 11 shows how the regional trade agreement enabled Uzbekistan to reduce its tariffs relative to other countries in the region since 2013.

Exhibit 11: Tariff reductions in Uzbekistan after a Regional Trade Agreement



Source: author's calculations using data from the SDG Tracker

Various impact evaluations also show that regional trade agreements are effective in increasing exports in MICs. A quasi-experimental study shows, for example, that the free trade agreement between China and 58 countries (the Belt and Road Initiative) increased exports of the Chinese forestry industry with 0.42 standard deviations (Tang et al., 2020). Another evaluation indicates that the China-Association of Southeast Asian Nations (ASEAN) Free Trade Area probably also stimulated the exports of Chinese firms to the regional market. However, some caution is required in interpreting this finding because of the high risk of selection-bias of this study (Zhang et al., 2018). These positive findings are consistent with a different study showing that the Belt and Road Initiative increased the exports of countries that were signatories to this regional trade agreement with China (Mao et al., 2019). The same study did, however, find a smaller effect from the regional trade agreement with China on North African and Central and East Asian economies (Mao et al., 2019).

Regional trade agreements seem to have smaller effects on LICs in sub-Saharan Africa, though major evidence gaps remain. Evidence on the effectiveness of regional trade agreements is less clear in LICs in sub-Saharan Africa. The case study on Madagascar confirms that trade openness may not have the same benefits in LICs in sub-Saharan Africa as in MICs (VNR, 2021). In addition, corruption may limit the effectiveness of regional trade agreements in sub-Saharan Africa. While it is unclear whether the same mechanism will apply to other contexts, a study on trade between Mozambique and South Africa also suggests that reductions in tariffs may have smaller effects in contexts where high bribe payments are made because bribes may facilitate the evasion of tariffs (Sequiera, 2016). In addition, an evaluation of the EU-Southern African Development Community Economic Partnership Agreement only shows very small statistically significant positive effects on exports (Cipollina, 2022), which are not substantial enough to greatly accelerate exports in sub-Saharan Africa.²²

²² These effects are also no longer statistically significant after clustering the standard errors. The study by Cipollina (2022) does not use clustered standard errors, but we did account for clustered standard errors in a meta-analysis to examine the effects of regional trade agreements.

Regional trade agreements seem to have smaller effects on LICs in sub-Saharan Africa, though major evidence gaps remain.

Evidence on the effectiveness of regional trade agreements is less clear in LICs in sub-Saharan Africa. The case study on Madagascar confirms that trade openness may not have the same benefits in LICs in sub-Saharan Africa as in MICs (VNR, 2021). In addition, corruption may limit the effectiveness of regional trade agreements in sub-Saharan Africa. While it is unclear whether the same mechanism will apply to other contexts, a study on trade between Mozambique and South Africa also suggests that reductions in tariffs may have smaller effects in contexts where high bribe payments are made, because bribes may facilitate the evasion of tariffs (Sequiera, 2016). In addition, an evaluation of the EU-Southern African Development Community (SADC) Economic Partnership Agreement only shows very small statistically significant positive effects on exports (Cipollina, 2022), which are not substantial enough to greatly accelerate exports in sub-Saharan Africa.

While export subsidies were moderately effective in increasing exports in some MICs, they have not accelerated exports and were ineffective in some cases.

While export subsidies can have a positive impact on export values in some MIC contexts, evidence remains mixed and does not show the same acceleration in exports as that generated following regional trade agreements.

None of the case studies suggests that export subsidies have played a significant role in the acceleration of exports in the case study countries. A subsidized export loan did show positive impacts on export values in Turkey (Akgündüz et al., 2018). However, the impact evaluations of export subsidies that were included generally show a smaller effect on export values than the impact evaluations of regional trade agreements (Defever, 2020; Qu, 2019). One study on an export subsidy in Nepal suggests that export subsidies increase export diversification, but may not increase total export values (Defever, 2020). Based on this finding, the study calls into question the effectiveness of export subsidies, especially because of their high fiscal costs (Defever, 2020). While VAT rebates in China did promote increased export values (Braakmann et al., 2020), a different impact evaluation shows that tax cuts to promote exports led to a reduction in export product quality in China (Kong & Xiong, 2020). Finally, even when export-promotion results in short-term increases in export values, evidence from Tunisia suggests that the results can fade out in the longer term (Cadot et al., 2015).

Export subsidies may also have different effects in LICs, but significant evidence gaps remain. Limited manufacturing capacity in LICs may reduce their ability to benefit from regional trade agreements. Import competition sometimes reduces business innovation, which can, in turn, limit the ability of LICs to build manufacturing capacity (Liu et al., 2021). For this reason, export subsidies to stimulate manufacturing may have different effects in LICs than in MICs. For example, the International Trade Centre (ITC) (2018) indicates that entry into the EU and US markets creates challenges for LICs because of procedural obstacles. One performance evaluation assessed the I4I5M Initiative, “a knowledge dissemination project aimed at providing a well-rounded training package [...] to assist countries in developing appropriate policies and practices to improve their fisheries sectors” (Divvaakar 2019, p. 10). The study found that, although the trainings increased awareness of the challenges, “improvement of capacities of the government and private sector in the participating countries to upgrade standards and comply with international food safety and related sanitary and phytosanitary standards) are not achievable from the project’s activities alone; the evaluation instead calls for several complementing investments to apply the benefits ensuing from the project’s contributions to technical knowledge and awareness of good practices” (p. 20). As such, major evidence gaps remain related to this question.

Even though [LDCs] generally enjoy zero tariffs from major importing countries, the impact of standards and [non-tariff measures] is several times higher than the imposition of tariffs. In 2012, the International Association of Agriculture Economics released a study that estimated the ad valorem tariff equivalents of EU’s food safety standards on imports of fish products from Kenya, Tanzania, Uganda and Zambia to be in the range of 63% to 270% for import of frozen fish fillets from the East African Community.”

– Divvaakar 2019, p. 18

While only limited evidence exists on cluster-development policies, evidence from Latin America and China suggests that they have positive effects on exports in some cases.

Studies in Uruguay and China show evidence for substantial and positive effects of cluster development policies on export values (Aboal & Perera, 2020; Quan et al., 2021). A cluster-RCT in Egypt suggests that cluster-development policies may generate benefits, because firms can learn from the experience of exporting. This study shows that Egyptian rug producers are able to increase their export values because they can improve technical efficiency after starting to export (Atkin et al., 2017). While evidence on such initiatives remains limited, these findings indicate that LICs can look beyond trade liberalization initiatives when aiming to increase exports.

Similarly, performance and process evaluations of trade facilitation initiatives point to the need for the implementation of multiple, complimentary approaches to increase exports, where capacity-building efforts are targeted to population needs. Multiple evaluations found a lack of linkages between the trade facilitation activities of an initiative and trade outcomes, and an absence of other connecting activities that should have been included (ADB Independent Evaluation Department 2018; Finlayson, 2021). For example, an evaluation of an initiative that aimed to help LDCs upgrade and diversify their fish exports found, “The expected accomplishments (improvement of capacities of government and private sector [...] to upgrade standards and comply with international food safety and related sanitary and phytosanitary standards) [...] call for several complementing investments to apply the benefits ensuing from the project’s contributions to technical knowledge and awareness of good practices” (Divvaakar 2019, p. 20). In other cases, capacity-building activities were not useful to government and private sector participants, or required complementary approaches that were absent such as infrastructure, credit facilities or additional follow-up (Harper, 2020; Ndung’u, 2019). For example, an evaluation of an initiative aiming to increase the capacity of policymakers to identify and address sex-specific barriers to women in trade noted that “Participants seemed disappointed that the project was at its conclusion as they felt ill-equipped to push through such reforms without support, mobilization and follow-through” (Harper, 2020, p. 28).

Lesson 2: Maximizing the impact of global trade agreements on export values and FDI will require higher trust in domestic institutions and more product differentiation.

Exhibit 12. Lesson 2 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Partnerships Trade	<ul style="list-style-type: none"> Impact evaluations Case studies Performance and process evaluations 	<ul style="list-style-type: none"> The effects of WTO accession on a country’s trade depend on contextual characteristics, including institutional trust, product differentiation and credit constraints. Maximizing the impact of global trade agreements will thus require improvements in institutional trust and more product differentiation.

The effects of WTO accession on a country’s trade depend on contextual characteristics, including institutional trust, product differentiation and credit constraints. A global study suggests that the impact on exports of country accession to the WTO depends on how national firm managers perceive the country’s institutional environment (Nuruzzaman et al., 2022). Essentially, the export intensity of firms increases after WTO accession if their managers have positive views about domestic institutions (for example, related to customs, business permits and labour regulations), but not if they view these as obstacles. This finding is consistent with higher impacts of the Chinese entry into the WTO on the number of products imported by China from OECD countries (where [institutional trust](#) is higher) than on the number of Chinese imports from low- and middle-income countries (van Biesebroeck et al., 2022). The same study shows that the impact of China’s entry to the WTO on the number of Chinese imports is greater for differentiated products that are unique relative to products sold on the Chinese domestic market (van Biesebroeck et al., 2022). This is likely because consumers are less sensitive to the price of differentiated products (van Biesebroeck et al., 2022). Finally, an investigation of China’s accession to the WTO suggests that it led to improvements in export quality only for those firms that faced binding credit constraints (Zhang et al., 2022). It is likely these firms found it difficult to secure external funding for activities to enhance quality prior to China’s WTO accession, but had more resources available after tariff reductions from trade liberalization which enabled them to save on input costs (Zhang et al., 2022).

Maximizing the impact of global trade agreements will thus require improvements in institutional trust and more product differentiation.

The findings suggest that the effectiveness of global trade agreements may depend more on domestic institutions than on the nature of free trade agreements. As discussed above, the benefits of global trade agreements depend on trust in domestic institutions. The case study of Madagascar (selected as part of the positive deviance assessment) shows that its international trade recovered after elections were resumed in 2013, while its textile sector collapsed after a coup against the President in 2009. Similarly, Myanmar dramatically increased its trade after the dissolution of the military junta in 2011. FDI (especially from China) played an important role in the recovery of trade in Myanmar. These investments were used to increase the country's manufacturing capacity for garments (Gelb, Calabrese, & Tang, 2017). The ability of firms to export differentiated products also strongly depends on their business environment and practices (Artopoulos et al., 2011). This is especially important because trade liberalization can lead to import substitution and reduced business innovation, which can cause challenges for LICs without sufficient manufacturing capacity (Liu et al., 2020).

Lesson 3: MICs increase their exports and inward FDI after trade agreements with HICs. However, food and other regulations limit the ability of sub-Saharan African LICs to increase their exports after entering into preferential trade agreements with the EU and other HICs. Trade agreements between Southern countries generate larger effects on exports and FDI.

Exhibit 13. Lesson 3 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance Partnerships	<ul style="list-style-type: none"> Performance and process evaluations Impact evaluations VNR analysis Case study analysis 	<ul style="list-style-type: none"> Preferential trade agreements between developed and developing countries might not always benefit the latter because of difficulties in meeting trade regulations. Helping low- and middle-income countries understand and meet regulatory standards could support these countries to increase their exports to the EU and other middle- and high-income countries, but the effects are more uncertain for LICs. Trade agreements between developing countries and other Southern countries such as China might have trade impacts but could also lead to unintended consequences such as environmental harms.

Preferential trade agreements between developed and developing countries might not always benefit the latter because of difficulties in meeting trade regulations.

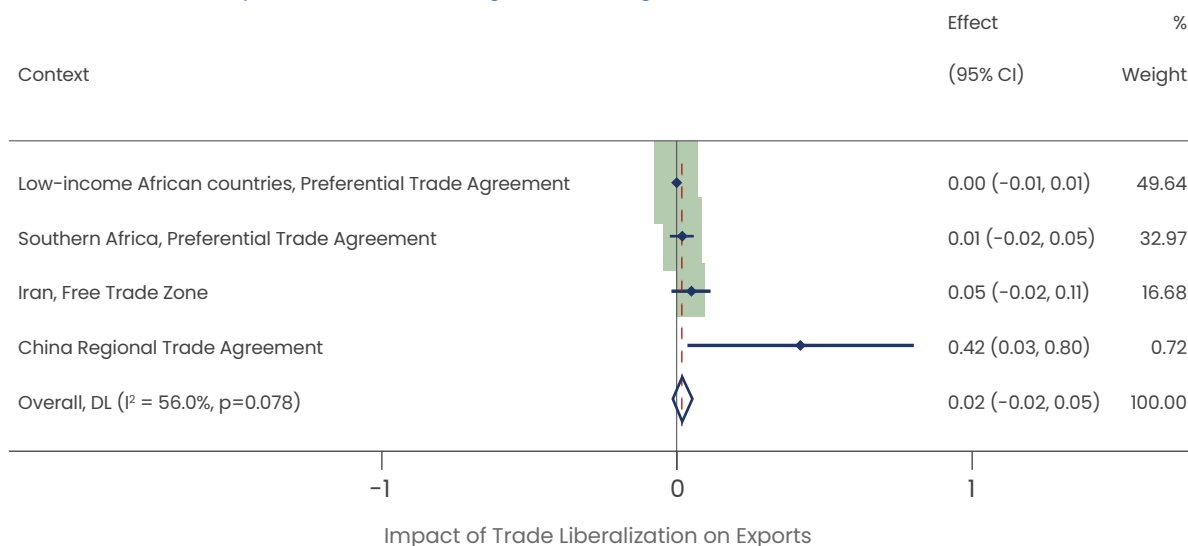
Impact evaluations of preferential trade agreements between sub-Saharan African countries and the EU show only limited effects on exports. For example, the EU 'Everything but Arms' preferential trade agreement did not have positive impacts on the quantity or value of exports of the least developed countries (LDCs) in sub-Saharan Africa, except for some sectors (Ofei, 2017). An evaluation of the EU-SADC Economic Partnership Agreement also only shows very small statistically significant positive effects on exports (Cipollina, 2022) that will not accelerate exports in sub-Saharan Africa.²³ Mayda and Steinberg (2009) also show that Uganda's overall trade with other member countries of the Common Market for Eastern and Southern Africa, a South-South preferential trade agreement, did not increase considerably. By contrast, Tunisia did increase its exports of preferential goods after a bilateral free trade agreement tailored specifically for the country by Switzerland (previously Tunisia experienced only the non-reciprocal trade preferences that Switzerland grants to all developing countries) (Ritzel et al., 2017). However, Tunisia may have benefited from this agreement because it was better able to comply with procedural guidelines due to its middle-income status. However, when MICs benefit from free-trade agreements, there may be negative spillovers. For example, when Algeria signed a bilateral free trade agreement with the EU, it led to reductions in Turkish exports to Algeria (Dincer

²³ These effects are also no longer statistically significant after clustering the standard errors. The study by Cipollina (2022) does not use clustered standard errors, but we did account for clustered standard errors in a meta-analysis to examine the effects of regional trade agreements.

et al., 2018). Nonetheless, LICs may benefit from trade agreements with MICs such as China. The Belt and Road Initiative led to considerable increases in exports from countries along the One Road and One Belt that signed a regional trade agreement with China, including various countries in sub-Saharan Africa (Mao et al., 2019).

A meta-analysis nonetheless shows that preferential trade agreements between low- and high-income countries have limited effects on export values. Exhibit 14 shows this meta-analysis, which also includes the effects of regional trade agreements on exports of the Chinese forestry industry discussed above (Tang et al., 2020), and a study on regional trade agreements in Iran (Mohebi, 2020).

Exhibit 14. Meta-analysis on the effects of regional trade agreements



The findings indicate that preferential trade agreements are ineffective in increasing exports in sub-Saharan Africa, while regional trade agreements and other trade liberalization instruments show substantial and statistically significant effects on exports in China. Overall, the meta-analysis does not show statistically significant effects of trade liberalization, suggesting that its effectiveness depends on the income status of the countries and the type of trade liberalization. Some caution is needed in interpreting the findings, because the positive point estimates in Iran are not statistically significant, and because of the small number of studies. However, both the case study in Uzbekistan and additional impact evaluations of regional trade agreements suggest positive effects of regional trade agreements on exports in MICs (Chen et al., 2022).

For low- and middle-income countries, helping them to understand and meet regulatory standards could contribute to increase their exports to the EU and other middle- and high-income countries, but these effects are less certain for LICs. Some evidence from performance and process evaluations suggests that countries may face challenges meeting food and other regulatory standards (Divvaakar, 2019; Engelsman et al. 2019). An evaluation of the Botswana Exporter Development Programme to increase export competitiveness found:

“Non-tariff barriers (NTBs) imposed by key target markets also affected the success of companies to penetrate foreign markets. Conditions introduced by Zimbabwe on imports of wooden bases caused the exports by one enrolled company (Gabs Bedding) to a drop of sales by over P6 Million and a loss of 115 jobs. The refusal by Namibia to allow another company (Oodi Investments) to export eggs there when a secure order had been obtained is another case of NTBs. Stringent foreign exchange regulations by South Africa can also be seen from an NTB angle. Kalahari Floor Tiles (a BEDP company) has experienced great difficulties in repatriating payments from RSA where over 90 percent of their products are sold” (Ndung’u 2019, p. 37).

Making import regulations less stringent and removing quotas can indeed result in increases in exports from MICs to HICs, as well as increases in FDI. For example, Cambodia increased its garment exports to the EU by 112 percent after 2011 when the EU simplified rules of origin. Cambodia was able to increase its exports with the help of increased textile imports from China, while maintaining preferential access to the European market (Tanaka, 2021). Similarly, India increased its textile and apparel exports to the US after the removal of US textile and apparel quotas. In another example, textile and apparel exports from China to the US decreased because of the removal of quotas (Edwards & Sundaram, 2017). Finally, after a free trade agreement with the US, average per capita inflows of FDI increased 7 percentage points more in Peru than in Bolivia (Baker et al., 2016).

Countries can also adjust their export strategy in response to non-tariff trade barriers. For example, mango-exporting firms from Pakistan increased their exports after the Government of Pakistan standardized requirements in relation to retail packaging and labelling for the export of mangoes to the EU and Canada. The requirement led to increases in mango exports for Pakistani firms after four years. This finding is consistent with exporting firms learning to generate efficiencies from previous export experience. For example, Egyptian rug producers increased their export values after being able to improve their technical efficiency after starting exports (Atkin et al., 2017).

However, the effects of helping countries to understand and meet regulatory standards are more uncertain in LICs than MICs. We did not find impact evaluations showing positive effects after removing non-trade barriers on LICs. In addition, regional trade agreements show smaller effects on LICs than on MICs, possibly because of the limited manufacturing capacity in LICs.

Low- and middle-income countries can also benefit from free trade agreements with other Southern countries, such as China, though fewer regulatory standards may create environmental challenges. As discussed above, the Belt and Road Initiative led to considerable increases in exports from those countries along the Belt that signed a regional trade agreement with China (Mao et al., 2019). In addition, the case study of Peru (selected as part of the positive deviance assessment) showed that it generated large economic benefits from a bilateral trade agreement with China because of increased copper exports. At the same time, this case study showed trade-offs between different SDG goals, because the copper trade with China led to considerable environmental degradation in Peru (Dialogo Chino, 2020).

Various other studies from China indicate that free trade agreements between Southern countries can result in increases in FDI. One study in China shows that selective trade liberalization results in larger positive effects on FDI than the promotion of FDI (Inada, 2022). In addition, the Belt and Road Initiative led to increases in outward FDI in China (Lu et al., 2020).

3.2 Lessons on finance

This section discusses lessons and supporting findings on finance. We present lessons on the impacts of tariff reductions on tax revenue, how different types of tax reforms influence tax revenue and ways to reduce dependence on traditional forms of ODA. In this way, the section generates lessons related to the debt crisis in sub-Saharan Africa where various countries are experiencing debt repayment challenges (Chuku et al, 2023; Gaspar & Pazarbasioglu, 2022).

Lesson 4: Tariff reductions increase exports in various settings, but they also result in significant reductions in government revenue.

Exhibit 15. Lesson 4 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance	<ul style="list-style-type: none"> Impact evaluations Case studies 	<ul style="list-style-type: none"> Tariff reductions result in export increases, but their effects are smaller in sub-Saharan African countries. While tariff reductions can lead to sharp increases in exports, they also result in significant reductions in tax revenue.

Tariff reductions result in export increases, but their effects are smaller in sub-Saharan African countries. As shown in previous sections, various impact evaluations indicate that tariff reductions linked to trade liberalization result in substantial increases in exports. For example, Uzbekistan accelerated its exports and economic growth after joining the free-trade zone of the Commonwealth of Independent States in 2013. In addition, US exports to China decreased considerably during the 2018-2019 trade war between the two countries (Ma et al., 2021). Furthermore, regional free trade agreements between China and its trading partners seem to have resulted in large increases in export values for China (e.g., Zhang et al., 2018; Tang et al., 2020) and its trading partners in the region (Mao et al., 2019).

While tariff reductions also had some positive effects on exports in LICs in sub-Saharan Africa, their effects on exports appear notably lower than in MICs. This is most likely due to challenges meeting food security regulations and because bribes may enable exporters to evade tariffs even in the absence of trade liberalization initiatives. For example, a trade agreement between the EU and various African countries only resulted in very small increases in exports (Cipollina, 2022). In addition, Sequiera (2016) indicates that export values in Southern Africa are less sensitive to tariff reductions because bribes allow firms to evade tariffs, although it remains unclear whether the same mechanism applies in other countries. Finally, LICs may face larger challenges in meeting the regulatory standards required to export food and other goods to the EU (Santeramo et al., 2019).

While tariff reductions can lead to sharp increases in exports, they also result in significant reductions in tax revenue. A global study using panel data from 97 countries indicates that countries joining the WTO experience a decline in tax revenue from import duties between 0.5 percent and 1 percent of their GDP (Buetnner & Madzharova, 2018). Similarly, a study about a tax transition reform programme among West African countries also reports strong decreases in tariff revenues after trade liberalization (Adandohoin & Ganunadigbe, 2022).

At the same time, trade liberalization also enables countries to increase the sustainability of their debt. A case study from Peru indicates that export increases enabled the country to decrease its debt as a proportion of exports of goods and services. Peru was able to significantly increase its exports, especially of copper, after a bilateral trade agreement with China (Dialogo Chino, 2021). The increase in exports led to a decrease in Peru's debt as a proportion of exports of goods and services, which helped Peru to pay current debt obligations.

In addition, countries have various options to replace tariffs with other sources of tax revenue after trade liberalization initiatives. These options are discussed in the next section.

Lesson 5: Tax reforms, community-based tax collection and VAT taxes can compensate for reductions in tariffs by increasing tax revenue in the short term. The effectiveness of these policy instruments depends on the income status of the country.

Exhibit 16. Lesson 5 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance	<ul style="list-style-type: none"> Impact evaluations Case studies 	<ul style="list-style-type: none"> While tariff reductions can result in substantial decreases in tax revenue, the introduction of VAT taxes can fully compensate for the loss of government revenue in MICs. Consumption taxes are effective in increasing government revenue in MICs. VAT taxes will likely have smaller short-term effects in LICs though they may have the potential to increase government revenue in the longer term. While LICs may not have the capacity to increase government revenue with VAT taxes in the short-term, they have various alternative context-specific options to increase government revenue.

While tariff reductions can result in substantial reductions in tax revenue, the introduction of VAT taxes can fully compensate for the loss in government revenue in MICs. As discussed above, countries joining the WTO experience a decline in tax revenue from import duties of between 0.5 and 1 percent of their GDP (Buetnner & Madzharova, 2018). However, the same study shows that the introduction of consumption taxes after WTO membership, on average, more than compensates for reductions in tax revenue from import duties (Buetnner & Madzharova, 2018). A study from West Africa also shows that transitioning from import duties to consumption taxes can increase the efficiency of mobilizing government resources because of increased tax discipline (Adandohoin & Ganunadigbe, 2022). This finding may relate to the previous finding, suggesting that import duties are particularly vulnerable to corruption in sub-Saharan Africa, as shown by a study examining trade between Mozambique and South Africa (Sequiera, 2016). The case study on the United Arab Emirates also highlighted that it is easier for HICs to diversify tax income without losing revenue. Since the 2000s, the United Arab Emirates has shifted its focus to developing economic drivers other than the oil sector, such as industry, tourism, transportation and logistics, real estate and construction, to obtain tax revenue. As a result, the country has one of the highest tax-to-GDP ratios in the Middle East and North Africa region (Economic and Social Commission for Western Asia, 2018).

Consumption taxes are effective in increasing government revenue in MICs. Three additional impact evaluations from China show that VAT taxes often have positive and statistically significant effects on government revenue (Wu et al., 2021; Gourdon et al., 2022; Fang et al., 2022). Two of the studies show positive effects on government revenue (Wu et al., 2021; Gourdon et al., 2022), while the third shows no statistically significant effects on the corporate tax burden of general taxpayers (Fang et al., 2021). Combined with the previous findings indicating that VAT taxes can fully compensate for reductions in import duties (Buetnner & Madzharova, 2018), and the potential increase in efficiency of mobilizing government resources caused by VAT taxes (Adandohoin & Ganunadigbe, 2022), the findings suggest that VAT taxes can act as an important source of government revenue in MICs.

VAT taxes are likely to have smaller short-term effects in LICs though they may have the potential to increase government revenue in the longer term. A macro-level study examining the impact of VAT taxes on government revenue shows no statistically significant positive effects and highlights potentially negative effects of VAT taxes on government revenue in LICs (Alavuotonki et al., 2019). This finding is consistent with the case study from Madagascar, which suggests that this LIC does not yet have the administrative capacity to implement VAT taxes. In the long term, however, LICs may be able to increase government revenue with tax reforms that leverage VAT taxes. A study from Togo shows that a tax reform that included VAT taxes led to large increases in government revenue nine years after the start of the programme (Bayale et al., 2022).

While LICs may not have the capacity to increase government revenue through VAT taxes in the short term, they have various alternative, context-specific options. A large informal sector combined with limited administrative capacity may limit the ability of LICs to mobilize government revenue using formal tax reforms in the short term. However, impact evaluations show that various other policy initiatives can generate large impacts on government revenue for countries with a big informal sector. In the Democratic Republic of Congo, property tax collection by city chiefs raised tax compliance by 3.2 percentage points (Balan et al., 2022), resulting in an increase in tax revenue of 44 percent. Incentivizing tax collectors in Pakistan with revenue collected from property taxes resulted in a 64 percent increase in the growth of property tax revenue (Khan et al., 2016). This may also be an option in LICs.

The case study for Madagascar, selected as part of the positive deviance assessment, indicated that this resource-constrained country is seeking to stimulate resource mobilization through a combination of measures, including the strengthening of its tax collection capacity. In addition, Madagascar aims to set up a coordination system, strengthen bilateral and multilateral cooperation, increase its efforts to meet debt repayments and monitor the effectiveness of development aid (Ministry of Economy and Finance, 2021).

Lesson 6: Where tax collection capacity increases, experimentation can contribute to the selection of the most effective approaches to increase government revenue and reduce the dependence of LICs on ODA.

Exhibit 17. Lesson 6 evidence summary

SDG-17 topic areas	Triangulation by Study Types	Supporting Sub-findings
Finance	<ul style="list-style-type: none"> Impact evaluations VNR data Case studies 	<ul style="list-style-type: none"> Low-income countries often remain highly dependent on ODA for their government revenue. Achieving SDG-17 indicators may not be feasible because of limited ODA. Low-income countries can reduce their long-term dependence on ODA by increasing their tax collection capacity. Governments could increase their tax revenue considerably by experimenting with messages for tax collection, but the likely effects are highly context-specific.

LICs often remain highly dependent on ODA for their government revenue, and achieving SDG-17 indicators may not be feasible because of limited ODA. While Madagascar (selected as part of the positive deviance assessment) has steadily increased its exports and economic growth, it remains dependent on ODA. In its VNR reports, Bhutan also highlighted how its achievement of SDG-17 goals was at risk due to the withdrawal of traditional development partners and a decline in ODA (Royal Government of Bhutan, 2018). In its VNR report, Belgium highlighted that EU member States need to considerably increase their ODA to reach the internationally set target of 0.7 percent of GDP.

New donors may slightly decrease the dependence of LICs on historical providers of ODA, but may also increase their public debt. While historical providers of ODA, such as EU member States, have limited their ODA (recent increases were driven by domestic spending on refugees and the war in Ukraine) (ECOSOC, 2023), some new donors have considerably increased their spending. For example, China has considerably increased its ODA to LICs, especially in Africa, and in 2018 created a new aid agency called the China International Development Cooperation Agency. However, it does not report publicly on the amount it invests in ODA (Muggah, 2023). In another example, the United Arab Emirates (selected as part of the positive deviance assessment) created a Ministry of International Cooperation and Development in 2013 and currently allocates 0.33 percent of its GDP to ODA (OECD, 2023). Various other VNR reports also highlight the ODA provided by new donors, including VNR reports from India and Thailand, suggesting that new donors may limit the dependence of LICs on historical providers of ODA. However, some of China's ODA in Africa may have decreased the debt sustainability of some African LICs (Cordell, 2021). China's loans to LICs may thus have contributed to the current debt crisis in sub-Saharan Africa.

LICs can reduce their long-term dependence on ODA by increasing their tax collection capacity. As discussed above, improving formal tax collection capacity may not have large effects on the government revenue of LICs in the short term. In the short term, VAT taxes may only have positive effects on government revenue in MICs such as China. However, LICs such as Togo have significantly increased their long-term tax revenue through tax reforms that included the introduction of VAT taxes (Bayale et al., 2022).

Remittances could serve as a substitute for ODA if they are invested in capital and education. Two case studies show the importance of remittances for achieving SDG-17 objectives. In Myanmar, remittances increased considerably after the military junta was dissolved in 2011. At this time, the country moved from a fixed to a floating exchange rate, which narrowed the gap between the official and parallel market exchange rates. Furthermore, the country rebuilt the banking system, which led to increased trust in the financial system, followed by increased remittances, especially from migrants to Thailand (Akee & Kapur, 2017). Similarly, remittances to Madagascar increased substantially following the return to electoral politics in 2013. Unfortunately, ongoing political turmoil, coupled with the after-effects of COVID-19, seem to have led to significant decreases in remittances in Myanmar after the coup in 2021.

Governments could increase their tax revenue considerably by experimenting with messages for tax collection, but how these effects differ is highly context-specific. Five RCTs studying the effects of different messages to collect taxes on government revenue showed large variations. A study in Rwanda showed that friendly messages were considerably more effective in raising government tax revenue than messages of deterrence (Mascagni & Nell, 2022). However, in the Dominican Republic deterrence through increasing the salience of prison sentences or public disclosure of tax evaders seem to have had more pronounced effects on tax revenue, especially for large firms (Holz et al., 2020). Similarly, in Peru a message to highlight detection had a larger effect on tax revenue than messages that emphasized social norms and altruism. In fact, the message highlighting altruism had a negative effect on tax revenue (Castro et al., 2022). In Colombia, phone calls that included personal interactions had large effects on the ability of the national tax agency to raise taxes from delinquent payers (Mogollon et al., 2021). Finally, a study in Papua New Guinea showed how nudging citizens to pay taxes may not increase tax revenue, because the citizens who responded to the nudges were largely exempt from paying taxes (Hoy et al., 2020).

The findings show how experimentation with tax collection messages can support countries in maximizing government revenue. For example, sharing information about prison sentences or the public disclosure of evasion arising from tax enforcement reform increased tax revenue by US\$ 184 million (0.22 percent of GDP) in the Dominican Republic (Holz et al., 2020). However, friendly messages were more effective in Rwanda (Mascagni & Nell, 2022). These findings suggest that experimenting with different methods to collect taxes can have large pay-offs for countries that need to increase government revenue. This finding is consistent with that of Rodrik (2018b), that China gained major benefits by experimenting with different policies.

3.3 Lessons on technology

This section discusses lessons and supporting findings on technology. It primarily focuses on the adoption of technology to mitigate or adapt to the consequences of climate change and the effects of the roll-out of broadband internet because impact evaluations have focused primarily on these topics. We also present lessons on the impact of green finance initiatives on green innovation, which increases financial flows to sustainable development priorities. Furthermore, we present lessons on the impact of the expansion of broadband on internet access and green innovation, including through public-private partnerships.

Lesson 7: While green finance initiatives in large Asian countries have positively impacted innovation, their effects remain small and insufficient to accelerate progress in green innovation (i.e., the number of green patents that contribute to environmentally sustainable business practices). Major evidence gaps remain on the impact of green finance initiatives outside of large Asian countries.

Green financing mechanisms serve to increase financial flows to sustainable development priorities, such as green innovation. Such initiatives can take many forms, including loans, insurance and grants. Some smart city policies also integrate green finance as part of their efforts to use information and communication technology to improve operational efficiency and provide a better quality of government service and citizen welfare.

We included nine impact evaluations of green finance initiatives from China in the evidence synthesis. These impact evaluations examined the effects of various green finance programmes on green innovation (i.e., the number of patent applications, number of green invention patent applications, number of green utility patent applications and the number of green patents).²⁴

Exhibit 18. Lesson 7 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Finance	<ul style="list-style-type: none"> Impact evaluations Case studies 	<ul style="list-style-type: none"> The impact evaluations of green finance initiatives in large Asian countries show consistent but small effects on green innovation regardless of the outcome measure. Current green finance initiatives may thus make small contributions to achieving SDG-17 indicators but are unlikely to generate transformative impacts. The case study of Ireland, which AIR selected as part of its positive deviance assessment, indicated a strong interest from some donor countries in supporting initiatives that can mitigate or help countries adapt to the effects of climate change, suggesting that North-South partnerships could facilitate larger impacts from green finance initiatives.

The impact evaluations of green finance initiatives in large Asian countries show consistent but small effects on green innovation, regardless of the outcome measure. The different impact evaluations tend to use slightly different quasi-experimental evaluation designs or datasets and sometimes focus on different regions in China. While each of the evaluations shows positive effects on green innovation, none of the effect sizes is larger than 0.2 standard deviations, which is relatively small.

Current green finance initiatives may make small contributions to achieving SDG-17 indicators, but are unlikely to generate transformative impacts. The relatively small effects on green innovations will not generate sufficient impacts to make a large difference in the context of China, which is currently the largest emitter of CO₂ in the world (Ritchie & Roser, 2022). It is unlikely that small effects on innovation will make a large difference, suggesting that green finance initiatives may require more resources to substantially change the behaviour of highly polluting firms.

²⁴ As discussed in the impact evaluations, the number of green patents is a better proxy for green innovation than the number of green inventions and green utility patent applications. The number of green inventions is also a better proxy for green innovation than the number of patent applications. The different impact evaluations use different proxies, but the results are consistent regardless of the outcome measure.

The effect of green finance initiatives also remains unclear outside of China. While we found nine impact evaluations focusing on green finance initiatives, we did not find any rigorous impact evaluation of a green finance initiative outside of China. While the evidence from China is important because of the country's contribution to pollution, more evidence is needed to assess the effects of green finance initiatives in different contexts.

The case study of Ireland, selected as part of the positive deviance assessment, indicates a strong interest from some donor countries in supporting initiatives that can mitigate, or help countries adapt to, the effects of climate change. This suggests that North-South partnerships could facilitate green finance initiatives with greater effects. The Government of Ireland increased its ODA in 2022 to 0.64 percent of gross national income (GNI), or about \$2.5 billion, with a focus on green initiatives such as climate change adaptation (Government of Ireland, 2019; ADB, 2021; WTO, 2022). In their International Climate Finance Roadmap (Government of Ireland, 2022) the Government states it is motivated in its commitment to climate finance by the contribution it can make to increased safety, peace and sustainability. North-South partnerships between donor countries and Southern countries investing in green finance initiatives can potentially generate larger effects from green finance initiatives.

Lesson 8: Investments in broadband infrastructure in large Asian countries have enabled green innovation, which contributes to environmentally sustainable business practices, in addition to increasing internet access and helping to address the digital divide.

Exhibit 19. Lesson 8 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Technology	<ul style="list-style-type: none"> Impact evaluations Case studies 	<ul style="list-style-type: none"> Access to quality broadband services has generated positive impacts on innovation for businesses and internet access for individuals in large Asian countries. While evidence is weaker beyond large Asian countries, internet access is likely to have contributed to technology outcomes in other low- and middle-income contexts.

Access to quality broadband services has generated positive impacts on innovation for businesses and internet access for individuals in large Asian countries. For businesses, improved broadband infrastructure has the potential to enable greater innovation and can accelerate the digitization of processes, improving the quality of services. For individuals, broadband can help in accessing a range of services that were hitherto unavailable, including but not limited to internet access. This is especially true for marginalized and underserved populations such as those in rural areas. However, the case study from India shows that private sector investments by the Reliance company have primarily benefited urban populations.

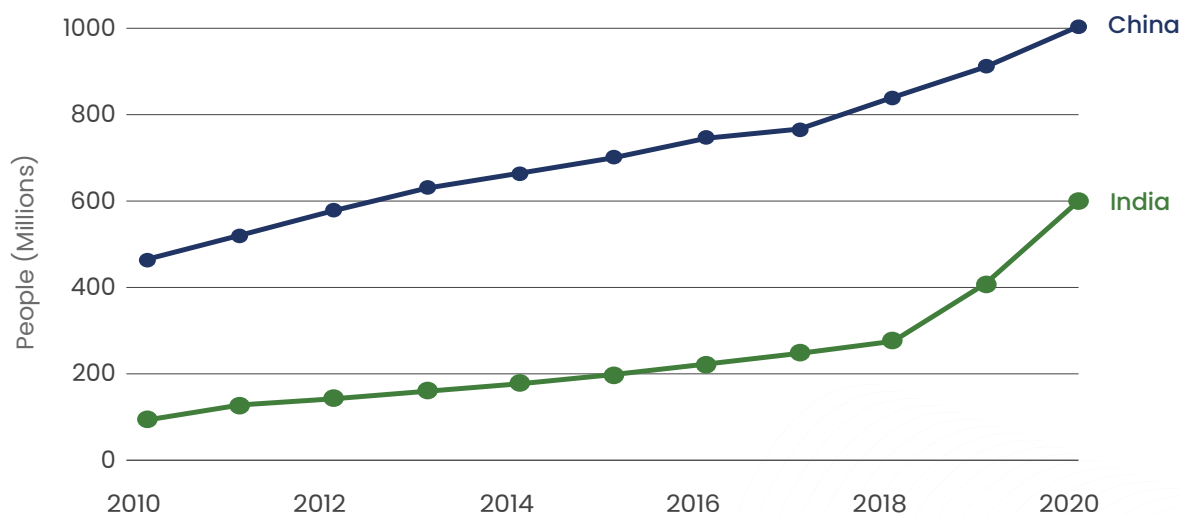
Large-scale broadband roll-out programmes in China with a focus on increasing access and improving the overall speed of the network have had a positive impact on technological innovation, specifically green innovation, which can help with the generation of new technologies that reduce environmental risks. Evaluations of the 'Broadband China' programme broadly indicate that it has led to an increase in green innovation, as measured by applications and grants of green patents (Feng et al., 2023; Lu et al., 2022; Zou et al., 2022; Zhong et al. 2022).²⁵ One of the mechanisms for broadband which has led to increased innovation is raising the proportion of science and technology expenditure in local government fiscal expenditure (Feng et al., 2023). In contrast, Wen et al. (2022) did not find any impacts of the roll-out of Broadband China on technological innovation. However, the study did find that the programme helped technology diffusion by reducing transaction costs. These findings suggest that, even in the absence of incremental innovation, internet access can help to promote the spread of existing technologies.

²⁵ "Broadband China" aimed to provide, by 2015, internet access to more than half of households in target geographies, with access speeds of at least 20 Mbps, and 100 Mbps in some developed cities. By 2020, the programme's target was to have a penetration rate that would reach 70 percent. Additionally, the Chinese Government aimed to boost business network speeds to 100 Mbps in 2015 and 1000 Mbps in 2020 in a component specific to enterprises.

Evidence also indicates that improving access to broadband internet has positive impacts on digitization. Wang, Hu, and Tian (2022) show that the Broadband China programme led to meaningful increases in digitization, as measured by the number of broadband users and the total revenue of telecommunication companies. A study by Wang & Zhang (2022) further showed that the setup of network infrastructure through Broadband China had a positive impact on the digitization of companies, though this finding was driven by technology-intensive enterprises.

It is likely that broadband infrastructure also contributes to digital financial inclusion, especially in underserved areas such as rural regions (Niu et al., 2022). The 'Universal Telecom Services' programme, rolled out by the Chinese Government to bridge the digital divide between urban and rural areas, contributed significantly to digital financial inclusion. Evidence indicates that, while broadband infrastructure promotes coverage of digital financial services (breadth of the availability of digital financial services), its effect on the usage dimension is limited (depth of usage of the available digital financial services).

Exhibit 20. Number of people using the internet in India and China



Source: Ritchie et al. (2023).

While evidence is less strong outside of China, it is likely that internet access also contributed to technology outcomes in other low- and middle-income contexts. Case studies of several countries show that massive digitization is currently underway in much of the developing world. Uzbekistan adopted the Digital Uzbekistan 2030 Strategy with a view to expand internet coverage and accelerate digital transformation in several sectors, including healthcare, banking and agriculture. India also witnessed a quadrupling of the number of people using the internet in the last decade, mostly driven by the private sector. Based on available evidence, such increases in internet availability and digitization are likely to drive innovation and financial inclusion.

Evidence from sub-Saharan Africa indicates that fibre submarine cables can also contribute to internet access. A quasi-experimental study indicates that the roll-out of fibre submarine cables in sub-Saharan Africa led to an increase in the internet penetration rate of 3-5 percentage points in Eastern and Southern Africa relative to the rest of the continent (Cariolle, 2021).

Performance, process and impact evaluations found that, in some cases, technology initiatives such as those to promote mobile money, e-government, connectivity and renewable energy had success in achieving their desired outcomes (Chiwaula et al. (2020; Kwablah & Aya, 2022; Niu et al., 2022). That is, beyond providing technical innovation to the population, initiatives were also able to affect growth in the digital financial services sectors (Genesis Analytics, 2018), the delivery of digitalized public services to the population (e.g, electronic birth registration, and online tax

administration, etc.) (Novovic, 2021), and the cost-efficiency of technology for rural herders (World Bank, 2018c). However, some performance and process evaluations found that initiatives failed to develop technologies that responded to needs. The Low Carbon Low Emission Clean Energy Technology Transfer Programme in several African countries failed to deliver its desired outcomes to improve energy access and increase economic opportunities. Evaluators stated, “the Programme’s top-down, pre-defined solution was not aligned with local preferences” (MacPherson et al., 2022, p. 20).

Performance and process evaluations also suggested that technology innovation faced longer term challenges ensuring financial and infrastructure maintenance (MacPherson et al., 2022; Nuwakora & Beyene, 2018; Schwensen et al. 2021; World Bank, 2018d). In response to financing challenges, several technology initiatives successfully utilized co-financing mechanisms to facilitate project implementation. These financing mechanisms included public-private partnerships (World Bank, 2018b; World Bank, 2018c), microfinance schemes (World Bank, 2018c) and subsidies for rural energy consumers (World Bank, 2018d). Another initiative aiming to promote fossil-free electrification throughout Africa proactively sourced multiple funding sources, including third party resources for loan portfolio guarantees, crowdfunding and development aid (Schwensen et al., 2021). Such funding mechanisms enabled large-scale initiatives to broaden access to electricity, internet services and other forms of technology and innovation in conditions that may not otherwise have been financially possible.

3.4 Lessons on systemic issues and capacity-building

This section discusses lessons and supporting findings on systemic issues, which includes evaluations on the role of multi-stakeholder partnerships (between or among countries, multilateral organizations, civil society and the private sector) in achieving progress towards trade, finance and technology objectives under SDG-17. Also included were evaluations of activities related to support for national plans to implement all the SDGs, including those that support: policy coherence (target 17.13); implementation of country-owned results frameworks (indicator 17.15.1); and increased involvement of private sector, civil society and other stakeholders to mobilize and share knowledge, expertise, technology and financial resources (target 17.16).

Because the target indicator on capacity-building is to “Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the SDGs, including through North-South, South-South and triangular cooperation” (target 17.9), lessons on systemic issues and capacity-building are closely related and thus presented together in this report. AIR specifies where evaluations focused on South-South, North-South, public-private and trilateral partnerships²⁶ contributed to the findings, where partnerships had trade, finance, or technology-related outcomes, and where evaluations had elements specified as “capacity-building”. However, most of the findings in this section come from a cross-section of initiatives which all include elements that aim to enhance the capacity of partners.

Examples of partnership models include: South-South and North-South public-private partnerships to enhance trade and internet access with participation from government agencies and businesses from various countries; North-South and South-South Partnerships and trilateral cooperation models that enable governments to share approaches to best practice to achieve policy objectives (i.e., through policy frameworks and policies); and partnerships that allow governments to learn how technology can enhance data collection or statistical capacities. South-South cooperation (SSC) refers to the efforts of partnership-building between government entities, private sector, civil society and individual beneficiaries of two or more low- or middle-income countries, by exchanging knowledge, skills and resources for their individual or mutual benefit (United Nations Office for

²⁶ We use the term “trilateral,” which connotes a more horizontal relationship among partners, rather than “triangular,” which connotes a more vertical relationship as in an upright triangle (Rhee, 2011).

South-South Cooperation, n.d.). North-South cooperation refers to partnership-building between a high-income and a low- or middle-income country. If no description is given of the type of partnership to which a finding applies, the finding applies to all partnership models.

The lessons on partnerships collectively demonstrate the importance of: 1) designing informed initiatives; that 2) define mutually agreed outcomes based on equal power relationships; which 3) account for all partner needs; and 4) embed mechanisms to fund and institutionalize activities over the long term. Including such features can contribute to achieving SDG-17 progress, regardless of the partnership objectives or the composition of partners (i.e., South-South vs. North-South partnerships or trilateral cooperation model).

Currently, North-South partnerships often miss these elements, which limits their effectiveness in achieving SDG-17 objectives. For example, North-South partnerships are not usually based on principles of horizontal collaboration with equal power relationships,²⁷ and do not sufficiently consider contextual factors when designing partnership initiatives. South-South partnerships are more frequently based on horizontal collaboration featuring trust, ownership and equal power relationships.

Lesson 9: The incentives for countries to collaborate on SDG-17 components are influenced by their interests, and these are often similar for countries with the same income status. Identifying and addressing the incentives for public and private partnerships promotes more effective global cooperation and accelerates SDG progress.

Exhibit 21. Lesson 9 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Partnerships Technology Trade Finance Capacity-building	<ul style="list-style-type: none"> Performance and process evaluations (primary source) Impact evaluations Case studies (secondary sources) 	<ul style="list-style-type: none"> Multilateral partnerships are more likely to accomplish their objectives when partners ensure that the purpose of the engagement is directly relevant to the varying interests of a large and diverse group of partners. Private sector actors are incentivized to participate in public-private partnerships if there is a clear link to business growth or productivity.

Multilateral partnerships are more likely to accomplish their objectives when partners ensure that the purpose of the engagement is directly relevant to the varying interests of a large and diverse group of partners (Demtschück, 2019; Finlayson, 2021; ITC, 2019, 2022; Kaplan et al., 2020; Prasada Rao, 2020). Evaluations across different partnership models and sectors noted the importance of ensuring that all partners understand the purpose of the partnership and perceive a direct benefit to their participation. One initiative to support countries to implement the transparency framework of the Paris Agreement on climate change described how countries at different stages of development may have had different expectations: “Some countries were mainly interested

“All project teams struggle with limited budgets, heavy schedules and accountability pressures. These constraints mean that ‘partnership activities’, while they would likely be beneficial, are often regarded as non-essential or not an efficient use of resources. There is also the reality that competition between agencies and for resources, results in some project managers simply not being interested in learning about another’s work or achievements,”

– (Harper 2020, p. 35).

27 OECD (2011) defines “Horizontal Partnerships” as those “based on equity, trust, mutual benefit and long-term relations”.

in learning from other countries in their own regions, whereas others were more interested in learning from other region[s]. Some of the more advanced countries felt there was little they could learn from the other countries" (Prasada Rao, 2020, p. 9). Similarly, an evaluation of the work of the German development agency (GIZ) to support economic cooperation in Asia (Demtschück, 2019), recognized that: "Despite rising commitment and active participation, there is always a risk that cooperation partners do not perceive the benefits as sufficient to warrant their continued participation in interventions" (p. 36).

The box on the right describes how, for an initiative on informal cross-border trade in Eastern and Southern Africa, a lack of clear motivation for involvement limited interactions between the implementation team and external United Nations country team, despite plans for close collaboration (Harper, 2020). This suggests that the initiative may not have considered whether each of the partners was sufficiently incentivized to participate.

Failing to address the needs of partners, or failing to involve them in planning, makes their participation less likely. Limited incentives and shifting priorities are among the reasons that partners may reconsider whether a partnership warrants their participation during and beyond the initial period of investment (Bodnár & van Poelje, 2019; MacPherson et al., 2022; World Bank, 2018a). An ITC (2018) evaluation of a public-private partnership focused on trade found:

"The NTM Programme did not sufficiently engage with participating agencies, to ensure their existing internal decision making and communication systems were taken into consideration in [the] Trade Obstacles Alert Mechanism (TOAM) to address and solve the identified non-tariff measures (NTM)-related barriers. Although all participating agencies have signed the TOAM Protocol, the Focal Points who are nominated are not fully empowered to play their role of interface with TOAM." (p. 46)

This finding demonstrates how limited engagement from partners can be detrimental to the outcomes of a partnership.

Private sector actors are incentivized to participate in public-private partnerships if there is a clear link to business growth or productivity (Christensen, 2022; Isidor-Serrano and Pavel, 2022; van Oyen & Mambreyan, 2019; World Bank, 2018a). Building clear added value into the design of the partnership increases the likelihood of ongoing engagement. For example, an evaluation of efforts by the Swiss State Secretariat for Economic Affairs to enhance trade and the competitiveness of producers and small to medium enterprises (SMEs) in partner countries found that, "SMEs participate and invest substantial sums of their own if the programmes reduce costs and/or raise their productivity" (Engelsman et al. 2019, p. 10). Similarly, the terminal evaluation of the Sustainable Investment Promotion project, which piloted sustainable investment frameworks grounded in increased private sector engagement, found that the prospect of future growth incentivized private sector partners: "A positive [...] finding from the pilots was that domestic marketed-oriented manufacturers also support the ESG approach; not driven by urgent consumer demands, but in anticipation of future expansion into regional and overseas markets." (Christensen 2022, p. 21).

"SMEs embrace WEHU's support when it serves their business interest. Full stop."

— Engelsman et al. 2019 p.10

Investments by public-private partnerships to stimulate broadband in India, and investments in broadband infrastructure in China, show how building in clear added value can enable public-private partnerships to bring population-wide benefits. The case study in India showed how the country experienced a considerable increase in internet use in urban areas after investments in 4G by Reliance, a large private enterprise with the incentive to stimulate internet use in urban areas. In China, an impact evaluation showed that access to broadband not only increased internet access, but also provided businesses with the incentives to invest in green innovation (e.g., by applying for green innovation patents) and reduced environmental pollution (Zou & Pan, 2023). One study indicated that the internet helps upgrade the industrial infrastructure, which can lead to firms becoming more competitive by investing in research and development (Bao et al., 2022).

Lesson 10: South-South and trilateral cooperation show promise to accelerate progress towards SDG-17 results, including capacity development, by prioritizing trust and mutual ownership.

Findings from process and performance evaluations demonstrate that the approaches used in South-South and trilateral cooperation show promise to improve national policy coherence to achieve outcomes in sectors of interest, enhance capacities across sectors, and contribute to progress towards SDG-17 over time (Demtschück, 2019; Jalil, 2021; Kaplan et al., 2020; Khan & Zhou, 2018; Prasada Rao, 2020; Schwensen et al., 2021; Articulação SUL, 2020; Pérez, 2019; UNFPA, 2020; Young & Jaou, 2021). Currently, South-South partnerships focus primarily on access to knowledge exchange and resources to enhance the capacity of lower-income partners, but have scope to improve in achieving concrete policy outcomes. Data on SSC (both alone and as part of trilateral partnerships) indicate that such progress is most likely to be achieved by prioritizing mutual interests, trust and ownership. Below, we discuss the partnership-specific results of SSC and factors that facilitate and hinder the achievement of longer term outcomes.

Exhibit 22. Lesson 10 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance Technology Partnerships Capacity-building	<ul style="list-style-type: none"> Performance and process evaluations 	<ul style="list-style-type: none"> Current South-South and trilateral partnership initiatives are successful in promoting access to resources, services and learning exchanges that individual partners may not have been able to access without support. South-South and trilateral cooperation have the potential to be effective partnership modalities when they build on and promote mutual interests, trust and ownership between partners to ensure sustainability of results. Evidence shows promising results for the effectiveness of South-South and trilateral cooperation to improve outcomes, including sustained cooperation, institutional strengthening and developing national plans, policies and frameworks. However, these partnerships currently focus mainly on outputs such as knowledge exchange.

Current South-South and trilateral partnership capacity development initiatives are successful in promoting capacity-building through access to resources, services and learning exchange that individual partners may not have been able to access without support. Khan & Zhou (2018) described how the partnerships under the China South-South Development Center project have facilitated knowledge-transfer spanning multiple sectors, including agriculture, clean energy, industry and cultural development. In another example of SSC, Brazil shared expertise and tools with Latin American, Caribbean and African partners using its technology innovation for census data collection (UNFPA, 2020). After moving from paper-based to electronic data collection, Brazil shared electronic data collection technology through SSC by providing hand-held personal digital assistants and mobile geographic information system software to several countries in Latin America, the Caribbean and Africa. The evaluation team concluded that “[t]he countries benefitted from state-of-art information gathering and processing technologies developed by the Brazilian Institute of Geography and Statistics” (UNFPA, 2020, p. 40). Another initiative used a project’s web platform to provide open and free access to technical resources and information related to climate transparency (Prasada Rao, 2020).

South-South and trilateral cooperation have the potential to be effective partnership modalities when they build on and promote mutual interests, trust and ownership between partners to ensure the sustainability of results (Genesis Analytics, 2018; Khan & Zhou, 2018). These partnership modalities can be particularly effective at building trust because participants tend to have similar interests, such as regional integration and economic growth. Cultural similarities between countries in South-South partnerships also helped to facilitate more relevant activities, including regional integration (Demtschück, 2019; Kaplan et al., 2020; UNFPA, 2020; WFP, 2021). Especially in trilateral cooperation, partnership with a Southern donor could facilitate common interests and minimize perceptions of power asymmetries and disparities:

Regional trilateral cooperation and platforms contribute to an objective pursued by the actors in all three roles, namely regional development. [...] Most Southern providers cite altruism and the neighbourhood principle as their motivation for [trilateral cooperation] with regional beneficiaries. It is seen as a means of reducing regional, economic and developmental asymmetries (Kaplan et al., 2020, p. 49).

Southern partners focus on promoting ownership to ensure continued commitment and participation in partnerships (Demtschück, 2019; Kaplan et al., 2020). In some South-South partnerships included in this review, greater ownership is promoted primarily through participatory approaches, where diverse stakeholders contribute to the planning and development of guidelines and structures (Bodnár & van Poelje, 2019; Demtschück, 2019; Kaplan et al., 2020). In other partnerships, ownership is pursued through horizontal cooperation, where partners are jointly engaged in planning and decision-making (Kaplan et al., 2020).

Evidence shows promising results for the effectiveness of South-South and trilateral cooperation to improve outcomes, including sustained cooperation, institutional strengthening and developing national plans, policies and frameworks. However, these partnerships currently focus mainly on outputs such as knowledge exchange (Jalil, 2021; Kaplan et al., 2020; Khan & Zhou, 2018; UNFPA, 2020; van Oijen et al., 2022). Currently, most partnerships focus on the exchange of knowledge and skills as part of capacity-building (outputs), with the ultimate aim to integrate international standards and expertise into regional policies and strategies (outcomes). For instance, in an initiative supporting economic cooperation in subregional initiatives in Asia, the project contributed to the transfer of economic experience and expertise from other regional initiatives and communities to participating countries (Demtschück, 2019).

Some South-South and trilateral partnerships have contributed to the improvement of policy frameworks and policies in the sectors of focus. The evaluation of the Brazil-UNICEF Trilateral South-South Cooperation Programme (Articulação SUL, 2020) found “significant outcomes regarding improved policy frameworks and instruments in 8 out of the 15 countries assessed” (p. 58). Similarly, the Arab Accreditation Cooperation, a regional trade integration project, contributed to the development of good governance and anti-corruption policies by member States (Young & Jaou, 2021). An evaluation of the Arab Food Safety Initiative for Trade Facilitation found that guidelines and training on the import/ export inspection system led to beneficiaries applying the training, which also “translated into changes of some import and export inspections systems at the national level” (United Nations Industrial Development Organization [UNIDO] Independent Evaluation Division, 2020, p. 15).

However, many cooperation initiatives did not lead to the achievement of policy change outcomes in the sector of interest (Christensen 2022; Finlayson, 2021; ITC, 2018), seemingly because they were still at the stage of developing their approach beyond outputs to include follow-up actions that would mainstream their efforts. Lesson 12 further discusses how grounding initiatives in a theory of change can increase the likelihood of achieving these types of outcomes.

Lesson 11: North-South partnerships achieve more results towards SDG-17 when they use principles of horizontal cooperation in funding modalities, partnership design and governance structures. Building on evidence of the importance of incentives for participation, evaluations of North-South partnerships, including trilateral partnerships, showed that insufficient consideration of contextual factors and lack of collaboration on design and implementation were frequent barriers to the efficiency and effectiveness of initiatives (Barkatky, 2021; Bodnár & van Poelje, 2019; Brunagel et al., 2020; Caprile & Prasitpianchai, 2018; Chauvet et al., 2019; ITC, 2019; UNFPA Evaluation Office, 2020). For example, in a series of trainings that the ITC implemented in Tajikistan and Sri Lanka (2019) on trade facilitation, participants noted that a lack of country-specific detail and practical

examples limited their relevance and usefulness. Conversely, in partnerships where collaboration prioritized horizontal approaches to funding, design and governance, Southern partners were more likely to engage, enabling opportunities for Northern partners to leverage their comparative expertise in areas such as statistical capacity-building.

Exhibit 23. Lesson 11 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance Partnerships	<ul style="list-style-type: none"> Performance and process evaluations Case studies 	<ul style="list-style-type: none"> Some North-South partnerships suffered from limited context-specific knowledge on behalf of the Northern partner and unequal relationships in design and project governance, including use of funds. Principles of horizontality, such as cooperation on design and implementation while accounting for Southern partner interests, are more likely to yield long-term commitment and cooperation. Evidence shows that, with these principles in place, Northern or multilateral partners (i.e., United Nations organizations) can effectively act as a neutral broker of relationships between partners and leverage their expertise to build capacity.

Some North-South partnerships suffered from limited context-specific knowledge by the Northern partner.

While many initiatives did consider local context and needs, several evaluations cited that a lack of country knowledge, including geopolitical and economic history, country-specific challenges, characteristics and stakeholders, hindered successful implementation (ITC, 2019; Schwensen et al., 2021; van Blarcom et al., 2022). In addition, when programme officers lacked language skills, it impeded the efficiency and effectiveness of initiatives (ITC, 2019; Schwensen et al., 2021). In one case, a lack of adept cultural understanding by staff of UNIDO when promoting a model for industrial development in Peru led to “incomprehension among national stakeholders and, in the worst case, the rejection of the [model]” (Engelhardt et al., 2023, p. 32). In such cases, poor positioning of the Northern implementing agency thwarted the success of the SDG-17 initiative. In several of these instances, the Northern partner failed to sufficiently involve national stakeholders from the targeted countries (Bodnár & van Poelje, 2019; Caprile & Prasitpianchai, 2018; van Gerwen et al., 2021; Articulação SUL, 2020), thus hindering the relevance and efficiency of the initiative.

In a few cases, evaluations of partnership initiatives found that North-South partnerships demonstrated an overt bias towards benefitting the Northern partner. For example, the evaluation of the transition of Finnish-Vietnamese cooperation from a development aid model to one focused on bilateral trade and investment found, “*Within the whole portfolio of available services, most services and facilities are targeting support to Finnish companies looking for markets and investment opportunities abroad and much less to Vietnamese companies in entering Finnish markets*” (van Gerwen et al., 2021, p. 74).

Principles of horizontality, such as collaboration on design and implementation accounting for Southern partner interests, yield longer term commitment and cooperation (European Bank for Reconstruction and Development [EBRD], 2020). Ensuring equal participation in design and project governance, especially regarding the use of funds, facilitates cooperation between partners from the global North and South. Bodnár & van Poelje (2019) characterized a range of the types of collaboration between Northern and Southern CSO partners:

Collaboration between N [Northern]-CSOs and S [Southern]-CSOs varies from top-down contractual implementation relations to more equal joint planning relations. Several [strategic partnerships] have made an effort to delegate power to S-CSOs. This also depends on whether the [strategic partnership] is characterised by hierarchical bilateral vertical relationships: from one CSO to one lead CSO, who in turn

contacts other S-CSOs; or by horizontal coordination relationships involving all [strategic partnerships]. In the latter case, N-CSOs often participate in joint S-CSOs' planning and budgeting meetings in the country in question (p. 72).

The same evaluation also shows how recognizing the complementary strengths of partners can facilitate more horizontal collaboration.

Conversely, Kaplan et al. (2020) point to existing structures, especially for funding, that undermine the potential for horizontality in partnerships: “Southern-provider and beneficiary actors stated that they do not receive information about the itemised total costs of joint activities, for example. This indicates a lack of mutual accountability. Transparency is therefore limited in this area and complete horizontality is not possible” (p. 61). Palaia et al. (2019) also found that, “Unequal power dynamics between partners based on the level of financial contributions affected decision-making ability” (p. 218). In addition, the Formative Evaluation of the UNFPA approach to South-South and Triangular Cooperation recognizes the need to further define this principle as collaboration evolves, “Respondents from country offices and from national partner institutions reported that UNFPA could better clarify the principle of horizontality in SSC, particularly with upper middle-income countries, and thus play an important role in stressing SSC as a two-way process” (UNFPA Evaluation Office, 2020, p. 31).

Evidence shows that, with horizontality principles in place, multilateral and Northern partners can effectively act as neutral brokers of relationships between Southern partners (Christensen, 2022; Genesis Analytics, 2018). Many studies identified that multilateral agencies were particularly effective in serving as neutral providers of information between Southern partners. For example, for the Brazil-UNICEF Trilateral South-South Cooperation Programme on social protection, the evaluation found, “The role of UNICEF as a knowledge broker was also highlighted by partners. The ability of UNICEF to share diverse sets of policy solutions with governments, including the Brazilian ones, was particularly important during key political processes, such as broader social policy reforms, in partner countries” (Articulação SUL, 2020, p. 48). Similarly, Isador-Seranno and Pavel (2022) describe how the Global Business Network initiative managed to serve as a bridge between multiple actors:

The Global Business Network coordinators managed to establish themselves as a 'bridge' between the available German development cooperation programmes and the private sector actors ... at both the German/European and the local levels. This was done through raising awareness of the available tools and establishing a first contact between the German/European companies and institutions and the local ones... in many cases common business interests could be identified and mutually beneficial partnerships and projects could be established (p. 67).

In addition to serving as broker for partners, Northern partners can also build on their strengths (e.g., in specific sectors or with resources or technical expertise) to build capacity for Southern partners. While several evaluations demonstrated that, in some cases, Northern partners were poorly positioned due to a lack of context knowledge or local presence (Engelhardt et al., 2023; ITC, 2019; Schwensen et al., 2021; UNFPA, 2020), they did play an important role in providing resources and technical expertise (Jackson & Harji, 2020; Pérez, 2019; World Bank, 2019a, 2021a, 2022; Young & Jaou, 2021). As an evaluation of the Belgian Cooperation's 'Digital for Development' programme noted, “Although the Belgian Cooperation cannot understand every challenge [of the development context], it is important that it defines its positioning and capitalizes on niches where it can bring added value and draw on its reputation [English translation]” (p. 9-10, Brunagel et al., 2020).

One of the areas where Northern partners can play a role is in statistical capacity-building. One North-South initiative in the current study focused on statistical capacity-building as a primary objective (DaPonte, 2022) and several other initiatives included capacity-building for data collection and analysis as a component of programming related to other SDG-17 topic areas (Caraseni, 2021; Daoust, 2019; Engelhardt, 2018; World Bank, 2020a; World Bank, 2021b; Jalil, 2021). While evidence is limited, one evaluation showed that a statistical capacity-building initiative led to progress on SDG indicator 17.18.1 (DaPonte, 2022), which captures capacity for SDG monitoring. The initiative included activities such as national-level statistics trainings, advisory services and tools for improving SDG monitoring.

Other evaluations identified areas for improvement for Northern partners, including ensuring that interactions are not so *ad hoc* (UNIDO Independent Evaluation Division, 2020), better harnessing of knowledge and sharing documentation (UNFPA, 2020), and ensuring clarity on which donor funds the interactions (Zollinger et al., 2020).

Lesson 12: Prioritizing problem analyses and co-creating theories of change can help partners with different incentives to achieve results on SDG-17 indicators. Many initiatives lacked a thorough problem analysis, and that theories of change or logical frameworks that outlined how activities and corresponding outputs linked to tangible outcomes were either absent or weak. These initial design challenges had implications for the ability to monitor how activities led to concrete achievements (i.e., a programme’s effectiveness), as well as for the potential to sustain activities beyond the funding period. This section discusses how using problem analysis to create a comprehensive theory of change can facilitate the effectiveness and sustainability of partnerships and other initiatives.

Exhibit 24. Lesson 12 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Partnerships Trade Finance Technology	<ul style="list-style-type: none"> Performance and process evaluations VNR analysis 	<ul style="list-style-type: none"> A minority of evaluated initiatives established theories of change that evaluators assessed as sufficient for establishing anticipated linkages between activities and expected outcomes. Insufficient linkages in theories of change and limited applicability to actual activities had direct implications for initiatives’ effectiveness and ability to monitor achievements. Very few initiatives of any type planned for sustainability through institutionalization or continued funding.

A minority of the initiatives that were included had established theories of change that evaluators assessed as sufficient for establishing anticipated linkages between activities and expected outcomes (Christensen, 2022; Demtschück, 2019; Finlayson, 2021; Genesis Analytics, 2018). This finding applies across all the SDG-17 topic areas and their linkages with other SDG outcomes. Some initiatives completely lacked a theory of change for implementation (Birsan, 2018; DaPonte, 2022; EBRD, 2020). Initiatives that did establish theories of change often lacked a thorough problem or risk analysis (Brunagel et al. 2020; Econotec, 2018; MacPherson et al., 2022; Ndung’u, 2019; Novovic, 2021; Isidor-Serrano and Pavel, 2022; Panades-Estruch, 2021; van Oyen & Mambreyan, 2019; World Bank, 2019a, 2022), demonstrated insufficient linkages between activities and expected outcomes (Chauvet et al., 2019; Daoust, 2019; ITC, 2022; Jackson & Harji, 2020; Jain & Tirfi, 2021; UNFPA Evaluation Office, 2020), or had developed theories with limited applicability to the context (Caprile & Prasitpianchai, 2018; World Bank, 2021a).

The absence of problem or context analysis reduces an initiative’s relevance, a problem which disproportionately affected Southern partners. For example, the World Bank (2021a) study of a project on electrification in The Lao People’s Democratic Republic using hydropower technology noted, “The highly unrealistic targets set at design made it impossible to achieve outcomes established for the biodiversity offset [...] even if the WMPA’s capacity was sufficient and the institution was well managed, the initial design of the [hydropower plant] biodiversity offset still may have prevented a successful outcome” (p. 15). Likewise, Jackson & Harji (2020) cite an OECD review of key actors’ blended finance portfolios that shows, “There remain many unresolved questions on framing, measuring and integrating development impacts within blended finance,” including, “critical gaps in theories of change and deficiencies in... data on intended beneficiaries and development impacts” (p. 47).

In addition, a thorough risk analysis could lower the likelihood of initiatives being negatively affected by potentially predictable, external moderators such as political transitions or infrastructure needs. Most of the evaluations of initiatives that failed to conduct a risk analysis also identified external moderators that created challenges for implementation (Brunagel et al. 2020; Isidor-Serrano and Pavel 2022; WFP, 2021; World Bank, 2018b; World Bank, 2021a). For instance, in many cases, political transitions led to significant disruption or discontinuity in programme implementation, as champions of the initiatives moved on (Econotec, 2018; Engelhardt et al., 2023; Mager & Vracic, 2019; Palaia et al., 2019; Articulação SUL, 2020; UNIDO Independent Evaluation Division, 2020; van Blarcom et al., 2022; World Bank, 2018d, 2019a, 2020b, 2021b). Several initiatives were also inhibited by a lack of available technical platforms and skills (Barkatky, 2021; Caprile & Prasitpianchai, 2018; Genesis Analytics, 2018; Panades-Estruch, 2021). A thorough risk analysis could help programme implementers to better prepare for these external challenges by adapting their approaches or developing contingency plans.

Insufficient linkages in theories of change and limited applicability of actual activities had direct implications for the effectiveness of initiatives and the ability to monitor achievements (Christensen, 2022; Daoust, 2019; Finlayson, 2021; ITC, 2019, 2022; Jackson & Harji, 2020; Kaplan et al., 2020; WFP, 2021). Addressing linkages and partner incentives is particularly important in considering how partnerships can go beyond outputs such as sharing knowledge and resources, and contribute to impacts on SDG-17 and other SDG objectives. The box below describes how Kaplan et al. (2020) assessed the importance of strengthening the “programmatically-thematic dimension” of trilateral cooperation in German development cooperation. The evaluators argue that the small scale of activities and indirect pathways of the trilateral cooperation initiative are unlikely to lead to the desired development impacts.

In another example, the evaluation of the EBRD trade facilitation programme found that the initiative had failed to outline an explicit benefit to private sector participants, “Given high levels of competition and liquidity in [countries of operation] and ready availability of commercial [trade finance] training for banks, it is not clear why the [trade finance programme] network and its outputs is a unique source of value to local importers and exporters” (Finlayson, 2021, p. 30). Similarly, in a project to build the capacity of policymakers on non-tariff measures, the evaluator argued that the activities outlined in the theory of change to collect data, and produce and disseminate analytical and policy studies based on the data, might not build capacity as intended: “Theoretically, the activities do not clearly point to actual capacity-building events.” (Daoust, 2019, p. 16).

The lack of clear connections between activities and outcomes also limited the ability of initiatives to successfully monitor progress, a component necessary to build the capacity of low- and middle-income countries to increase the availability of high-quality, timely and reliable data. A relatively small proportion of evaluations found a complete lack of monitoring, and almost half of the included evaluations identified that initiatives used inappropriate indicators or approaches to monitoring (Bodnár & van Poelje, 2019; Caraseni, 2021; Chauvet et al. 2019; Finlayson, 2021; Harper, 2020; Leutgeb, 2022; World Bank, 2018a, 2021b). For example, some initiatives monitored only the completion of project activities (i.e., outputs), rather than assessing how the activities led

Where the aim [...] is to reach beyond the direct objectives of the measures and deliver long-term and sustainable contributions to development policy objectives, [trilateral cooperation] in its current form in German development cooperation is only suitable to a limited extent. At present, it is scarcely possible to reconstruct how the outcomes of the mainly small-scale measures are intended to contribute to overarching development goals. [...] if the implementation of [trilateral cooperation] were more impact oriented, its strengths could better be harnessed for the pursuit of development objectives [...] It seems advisable to strengthen the programmatically-thematic dimension in the design of [trilateral cooperation]. **The indirect causal pathway, which eventually leads to improvements for target groups in the beneficiary countries as a side-effect of establishing cooperation and strengthening the Southern providers, is insufficient for this purpose.**

— Kaplan et al. 2020, p. Vii

to outcomes (Alonso & Wachirapuwadon, 2019; Birsan, 2018; EBRD, 2020; Engelsman et al., 2019; Leutgeb, 2022; Zollinger et al., 2020). Other monitoring challenges included performance targets or outputs that did not align with the stated outcomes and objectives, and a lack of monitorable or 'SMART'²⁸ indicators (ADB Independent Evaluation Department, 2018; Demtschück, 2019; Econotec, 2018; Finlayson, 2021; Leutgeb, 2022; Mager & Vracic, 2019). Finally, one-third of the evaluations found that initiatives collected insufficient data (MacPherson et al., 2022; World Bank 2018b, 2018c, 2018d; UNFPA Evaluation Office 2020; van Oijen et al., 2022).

Many partnerships did not create sufficient plans for governance structures and collaboration, which posed a significant barrier to progress. Process and performance evaluations reveal that an important constraint to partnerships was the lack of a defined structure to govern collaborative initiatives. Many partnerships struggled to implement and manage their planned activities because they had no institutional structure to handle programme administration (MacPherson et al., 2022; Ndung'u 2019), or had weak or poorly defined governance structures (Engelhardt et al., 2023; van Gerwen et al., 2021; Zollinger et al., 2020). Other partnerships floundered because partners lacked clear roles and responsibilities (Econotec, 2018; van Gerwen et al., 2021; Palaia et al., 2019; Thiessen et al., 2018; UNFPA Evaluation Office, 2020).

In a similar vein, partnerships require allocated funding for overheads, administration and coordination, which is often not available or cannot be used flexibly (DaPonte, 2022; UNFPA Evaluation Office, 2020; World Bank, 2021b). Process and performance evaluations point to issues related to coordination and communication as both the most prevalent facilitators and most prevalent barriers to the efficiency of initiatives. As coordination and communication are essential to partnership success, project planning must include sufficient budget for such administrative processes.

Very few partnership initiatives of any type planned for sustainability through institutionalization or continued funding. Although partnership initiatives were successful with activities aimed to create connections and provide resources, many evaluations found that these initiatives did not design an approach to institutionalizing the support needed for further follow-up. The example below on Finnish-Viet Nameese cooperation illustrates how the absence of a mutually designed strategy disincentivized continued engagement:

“The transition process in Viet Nam was designed with a certain notion of a ‘new mutually benefiting partnership’ though this was not further described and no strategy was designed to steer the transition process towards a new kind of partnership. The process was mainly steered by financial goals of scaling down ODA and no concrete targets were set for widening the mutually beneficial relations in a new partnership setting... The above features of the transition process in Viet Nam have likely contributed to a somewhat limited appetite of both partners to engage in a formalised new partnership relation beyond the cooperation that was governed by the country strategies until 2020” (van Gerwen et al. 2021, p. 60).

Evaluations commonly identified two major conditions for sustainability: first, a strategy to continue funding the activities (Birsan, 2018; Bodnár & van Poelje, 2019; Brunagel et al. 2020; Caprile & Prasitpianchai, 2018); and second, institutionalization within government, other institutions, or projects or partnerships with other entities (ADB Independent Evaluation Department, 2018; Flor, 2021; Orth et al., 2018). Only a few evaluations identified that initiatives had incorporated sustainability planning from the outset as part of the theory of change, allowing more time to consolidate an approach more likely to lead to sustainable activities. Where initiatives across topics were successful in sustaining activities, the most effective mechanisms were identifying a financial model, fostering government or institutional ownership, developing an exit strategy, or building relationships and capacity for continuation.

3.5 Cross-cutting lessons

This section discusses lessons and supporting findings on SDG 17-related initiatives, regarding social and environmental equity and the VNR reports.

The analyses of equity considerations explored how the included initiatives and evaluations affected populations who are most likely to be left behind (e.g., women, youth and people with disabilities), as well as how initiatives considered their environmental sustainability. Generally, given the macro-level focus of many of the initiatives, implementers (and often evaluators) failed to sufficiently consider the potential effects of their activities on vulnerable populations or the environment. In addition, impact evaluations hardly considered equity implications, in part because of data limitations. Most impact evaluations were not able to examine effects for women, youth and people with disabilities because existing data did not include information on these categories. Other impact evaluations did not report on distinct effects for women, youth and people with disabilities because they did not collect their own data on these individual-level characteristics.

The analyses of the VNR reports focused on their use of evaluative evidence, with more detail on the implementation of evidence-based programming and ways to increase the relevance of data science techniques. The lessons are based on a combination of data science and qualitative analyses of the VNR reports.

Lesson 13: Development initiatives can better examine how the effects of macro-level initiatives differ for groups who are likely to be left behind, by conducting thorough risk and problem analyses, as well as collecting and analysing disaggregated data for vulnerable groups.

Exhibit 25. Lesson 13 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Finance Technology Trade Partnerships	<ul style="list-style-type: none"> Impact evaluations Performance and process evaluations 	<ul style="list-style-type: none"> Most SDG 17-related initiatives included in the evidence synthesis did not adequately address the implications for those most likely to be left behind. The impact evaluations in the evidence synthesis rarely focused on vulnerable social groups, indicating that a major evidence gap exists regarding the implications of trade, finance and technology programmes for those most likely to be left behind. As with equity, a minority of initiatives studied in the performance and process evaluations considered the environment or environmental sustainability in their design.

Most SDG 17-related initiatives included in the evidence synthesis did not adequately address the implications for those most likely to be left behind. Although, in some cases, initiatives in the evidence synthesis had intentional goals to pursue equity among population subgroups (Barkatay, 2021; Harper, 2020), most initiatives had significant shortcomings.

Many initiatives included in the evidence synthesis did not address equity issues at all (ADB Independent Evaluation Department, 2018; Chauvet et al., 2019; Engelsman et al., 2019; Kaplan et al., 2020; Ndung'u 2019; Orth et al., 2018; Panades-Estruch, 2021; Stritzke, 2018; World Bank, 2018a, 2018b, 2019b, 2020a, 2020b, 2021b, 2022). Several evaluators noted the significance of this oversight, identifying that the initiative would have relevant or differential effects for populations likely to be left behind (Divvaakar, 2019; Econotec, 2018; van Gerwen et al., 2021). In some cases, evaluators documented unequitable initiatives, in which the initiative harmed some vulnerable groups (van Gerwen et al., 2021; World Bank, 2018c, 2021a).

Many other initiatives acknowledged inequities, but did not address them. For instance, capacity-building programmes tracked the number of female participants in trainings, although women often accounted for a much smaller proportion of participants (Engelhardt, 2018; ITC, 2019; Jain & Tirfi, 2021; Novovic, 2021; Rana, 2019). In one initiative which aimed to promote the use of renewable energy technology in rural areas of Ethiopia, implementers recognized the potential impact of the initiative on women, who have the primary responsibility for collecting firewood and face greater exposure to domestic pollutants (Jain & Tirfi, 2021). Yet, their activities to promote the technology, which included trainings, awards and business incubation, failed to include a specific focus on women. The monitoring system also lacked sufficient gender equity indicators.

Some initiatives included in the performance and process evaluations adopted measures that were sensitive to the needs of specific groups, or included considerations to leave no one behind. However, such measures often included notable gaps. Among the population subgroups likely to be left behind, women were the most common group that initiatives included or considered to some degree (Barkatky, 2021; Christensen, 2022; EBRD, 2020; Genesis Analytics, 2018; Harper, 2020; Jackson & Harji, 2020; Jain & Tirfi, 2021; Orth et al., 2020; Palaia et al., 2019; Schwensen et al., 2021; UNIDO Independent Evaluation Division, 2020; van Blarcom et al., 2022; van Oijen et al., 2022; Young & Jaou, 2021). Initiatives sometimes included human rights-based approaches or human-centred design (Carasini, 2021; Divvaakar, 2019; Engelhardt, 2018). Some initiatives, predominantly technology-related, considered rural populations (Flor, 2021; Genesis Analytics, 2018; Jain & Tirfi, 2021; World Bank, 2018c, 2018d), and some considered youth (Articulação SUL, 2020; UNFPA Evaluation Office, 2020; WFP, 2021). Yet, initiatives and evaluations rarely addressed other subgroups and related equity issues such as the inclusion of indigenous populations or people with disabilities (Novovic, 2021; World Bank, 2018d).

Many of these initiatives also had noteworthy gaps. For instance, in one project to support the Serbian public administration and economy for digital transformation (Novovic, 2021), the implementers made some considerations for people with disabilities by including text-to-speech and size and colour options for the online government portal and accommodating people without digital literacy. However, the initiative failed to include gender mainstreaming or measure the effects on gender, which is important, considering “that digitalization may exacerbate the digital divide along gender lines” (Novovic, 2021).

The impact evaluations in the evidence synthesis rarely focused on vulnerable social groups, indicating that a major evidence gap exists regarding the implications of trade, finance and technology programmes for those most likely to be left behind. Overall, very few impact evaluations reported any equity considerations in their analysis, suggesting that the equity implications of trade, finance and technology initiatives are widely under-studied. Of the 183 impact evaluations that were included, less than 10 percent reported analyses related to gender, youth and other vulnerable groups.

The small number of impact evaluations studying effects for groups likely to be left behind focused primarily on disproportionately low-income populations, with limited emphasis on gender or youth considerations. For example, Chiwaula et al. (2020) studied the effects of a financial literacy and mobile money training delivered to low-income adults in Malawi. Mogollon et al. (2021) investigated efforts to increase tax compliance among delinquent taxpayers in Colombia. An income-based measure was used for the heterogeneity analyses in Wang et al. (2022), showing that digital transformation under China’s broadband pilot policy had a major impact on economically important cities, but a statistically insignificant effect on economically small cities (Wang et al., 2022). These examples demonstrate that even those impact evaluations that do emphasize equity are not able to distinguish between the effects of initiatives on men and women, youth, or low-income individuals or households.

One way to increase the focus on equity is by increasing the availability of data on gender, youth and poverty in the impact evaluations of SDG-17 initiatives. Almost all of the included impact evaluations used existing administrative or other publicly available data to study the effects of SDG-17 initiatives. These publicly available data often have no, or only very limited, focus on variables related to equity, such as gender, youth, vulnerability or poverty. As a result, the impact evaluations usually had very limited opportunity to study equity considerations, even if their research questions focused on this topic. This is very different from impact evaluations on education, social protection, health or gender equality initiatives, which usually collect their own data and thus have much more control regarding the study of equity considerations (e.g., Chinen et al., 2016; Galiani & McEwan, 2013; Scarlato & d’Agostino, 2019). Impact evaluations of SDG-17 initiatives could generate more useful lessons on equity if they had access to data on equity, or the resources to collect additional data on equity.

As with social equity, only a minority of initiatives studied in the performance and process evaluations considered the environment or environmental sustainability in their design. Among the initiatives that did consider the environment, some assessed risk (Caraseni 2021; Demtschück, 2019, Nuwakora & Beyene, 2018; World Bank 2018b, 2018c). Other initiatives did so because their designs had a direct environmental impact (Engelsman et al. 2019, Jain & Tirfi, 2021; World Bank 2021a), while others integrated environmental considerations into their designs (Brunegel et al., 2020; van Gerwen et al., 2021; Jackson & Harji 2020). Integrating such considerations at the design stage is ideal, regardless of the type of project, and some evaluations seemed to indicate that doing so was a cross-cutting focus beyond the initiative itself. For example, van Gerwen et al. (2021) describe, “focus on climate change mitigation and environmental sustainability have remained. This is because climate change and the environment in Finnish activities in Viet Nam have been an important cross-cutting objective, while it is also a key economic sector for international business activities of the Finnish Private sector” (p. 102).

Another minority of performance and process evaluations described challenges to ensuring ongoing environmental integration in implementation. A few evaluations mentioned overtly harmful effects of the initiative to the environment (e.g., World Bank 2018c), while other evaluations noted the need for environmental standards. For example, Christensen (2022) noted, “it is also clear that more work is needed to develop global standardization of terms and measurements. CSOs and consumers associations complain about “green washing”, misleading marketing claims and failed credibility unless standardized frameworks are adopted. Currently, global ESG accounting standards are subject to competing initiatives with no uniform set of standards for measuring a company’s progress on sustainability.” (p. 23). Most initiatives did not consider how their activities might affect environmental sustainability at all.

Lesson 14: To allow member States to better prioritize attention to those most likely to be left behind, VNR information about SDG-17 requires more disaggregated data highlighting equity issues.

Exhibit 26. Lesson 14 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance Technology Partnerships Equity	<ul style="list-style-type: none"> VNR data 	<ul style="list-style-type: none"> VNR reports often present trends, but do not usually present trends for those most likely to be left behind. Greater focus on equity will enable member States to prioritize attention to those most likely to be left behind. In-depth problem analyses on the specific needs of the most likely to be left behind can increase the effectiveness of multi-stakeholder partnerships.

VNR reports often present trends, but do not usually present trends for those most likely to be left behind. VNR reports frequently use statistical data to understand progress towards SDG-17 indicators. However, the reports rarely consider how trends differ between men and women, for youth or for people with disabilities. As a result, the VNR reports present limited information on equity, which hinders the ability of countries to understand how trends may differ for those most likely to be left behind.

Greater focus on equity will enable member States to prioritize attention for those most likely to be left behind. Currently, VNRs do not provide any detail about at-risk or underserved populations in the countries and how progress towards SDG-17 goals is affecting them. For instance, while VNRs discuss inflows of FDI, it is unclear to what productive purpose these inflows are directed and how, if at all, such investments are enabling vulnerable populations to improve their welfare.

In-depth problem analyses of the specific needs of those most likely to be left behind can increase the effectiveness of multi-stakeholder partnerships. Linked to the focus on equity described above, a first step in supporting left-behind groups is to focus on their requirements. It is likely that such groups may find it difficult to make their preferences known, and understanding their needs requires deliberate effort. Furthermore, multi-stakeholder partnerships, especially those where partners from high- or upper middle-income countries co-create solutions, can benefit from understanding and designing solutions for vulnerable populations, to whom resources can then be directed.

Lesson 15: Greater use of evaluative evidence allows VNR reports to better identify what works and why in accelerating SDG-17 outcomes.

Exhibit 27. Lesson 15 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance Technology Partnerships Equity	<ul style="list-style-type: none"> VNR data 	<ul style="list-style-type: none"> While VNR reports often use statistical data, they do not often use evaluative evidence to report on progress in SDG-17 indicators. More use of evaluative evidence will enable VNR reports to better identify what works and why.

While VNR reports often use statistical data, they do not often use evaluative evidence to report on progress in SDG-17 indicators. Many VNR reports use statistical data to examine trends in SDG-17 indicators. The use of these statistical trends enables countries to learn whether they are on track to achieve their SDG-17 targets. However, VNR reports generally do not link statistical data to specific SDG-17 initiatives. As a result, VNR reports are usually unable to explain trends in SDG-17 indicators. In the few instances that VNR reports have explained trends in SDG-17 indicators by linking them to specific initiatives, they have not cited evaluative evidence, limiting the reliability of claims of which initiatives have contributed to progress in SDG-17 indicators. For example, India reported how “...The Atal Innovation Mission, driven by NITI Aayog, is radically transforming the innovation and entrepreneurship landscape in India. Atal Tinkering Labs operating in schools are galvanizing design mindset, computational thinking, adaptive learning and physical computing across various themes.” (NITI Aayog, 2020). However, this claim was not based on evaluative evidence.

More use of evaluative evidence will enable VNR reports to better identify what works and why. VNR reports could generate more rigorous lessons on what works to improve SDG-17 indicators by including evaluative evidence. Including such evidence may require improved communication between the authors of VNR reports and United Nations country or evaluation offices. A repository of evaluative evidence linked to SDG-17 could also contribute to the ability of VNR reports to include evaluative evidence. This lesson echoes the sentiments of [UN Resolution A/RES/77/283](#), which encourages all member States to present VNRs with a country-led evaluation component.

Lesson 16: More specific language about ways to liberalize trade, increase government revenue and stimulate technology will allow VNR reports to make recommendations about the kinds of programming which can help to accelerate SDG-17 outcomes.

Exhibit 28. Lesson 16 evidence summary

SDG-17 topic areas	Triangulation by study type	Supporting sub-findings
Trade Finance Technology Partnerships Equity	<ul style="list-style-type: none"> VNR data 	<ul style="list-style-type: none"> VNR reports do not usually include detailed descriptions of programmes that can contribute to improving SDG-17 outcomes. Limited descriptions of effective SDG-17 initiatives may limit the ability of implementers to successfully replicate effective programmes.

VNR reports do not usually include detailed descriptions of programmes that can contribute to improving SDG-17 outcomes. Currently, VNR reports primarily focus on descriptions of SDG progress without linking this progress to specific initiatives. Even when VNR reports do include programme descriptions, these tend to be general, limiting the ability of implementers to understand which initiatives could accelerate SDG-17 objectives.

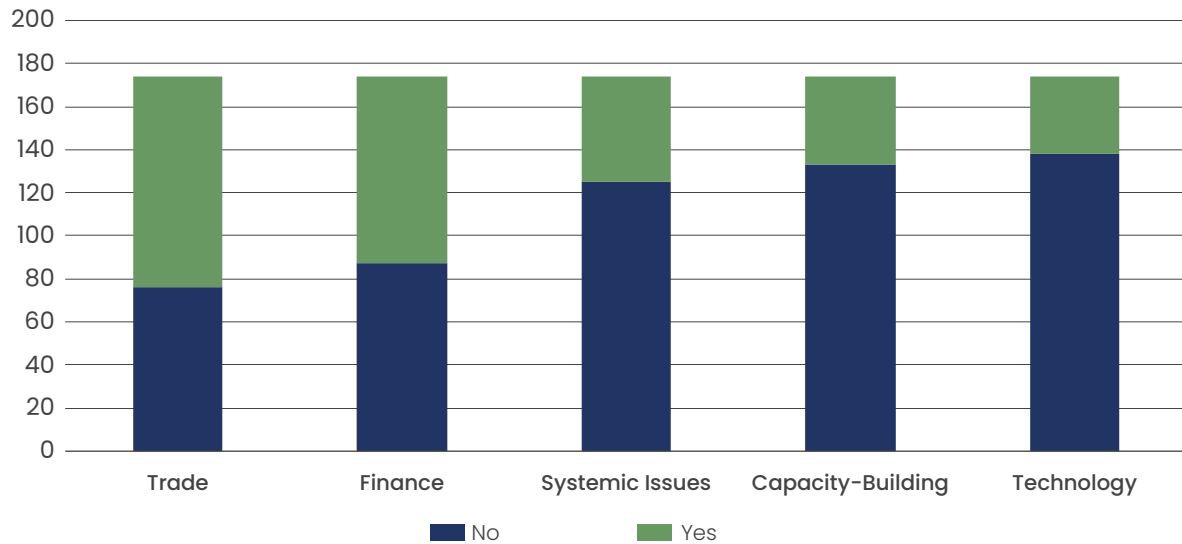
Limited descriptions of effective SDG-17 initiatives may constrain the ability of implementers to successfully replicate effective programmes. The absence of descriptions of effective initiatives precludes implementers from learning what works to improve SDG-17 outcomes. As a result, they will face challenges investing in and replicating programmes that are effective in improving SDG-17 indicators.

Lesson 17: While data science and artificial intelligence can generate lessons about VNR reports, these reports require stronger connections with statistical data and evaluative evidence to maximize the potential of data science.

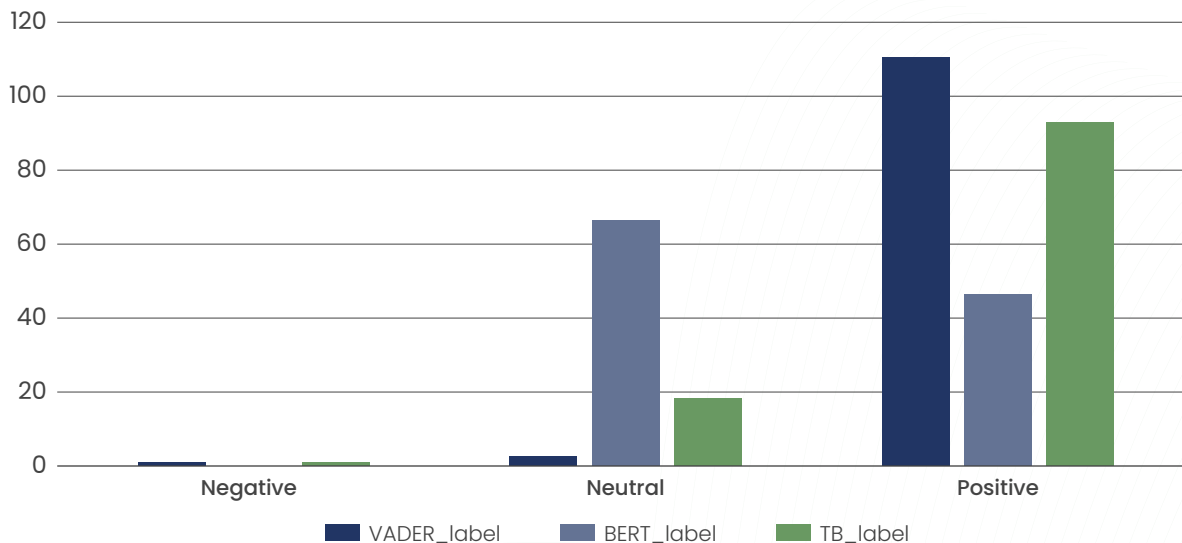
Exhibit 29. Lesson 17 evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance Technology Partnerships Equity	<ul style="list-style-type: none"> VNR data 	<ul style="list-style-type: none"> The use of data science allowed AIR to identify the frequency with which VNR reports discussed SDG-17 topics. Data science methods also allowed AIR to examine the sentiment with which VNR reports spoke about progress on SDG-17. More inclusion of statistical data and evaluative evidence in VNR reports can potentially increase the correlation between progress in SDG-17 indicators and sentiment scores of VNR reports.

The use of data science allowed AIR to identify the frequency with which VNR reports discussed SDG-17 topics. A considerable number of VNR reports highlight trade and finance issues, a smaller number relate to systemic issues, and only a few reports frequently mention capacity-building and technology. Exhibit 30 summarizes these results by reporting the frequency of VNR reports that include at least 10 keywords associated with different SDG-17 categories.

Exhibit 30. VNR reports that include at least 10 keywords associated with SDG-17 categories

Data science methods also allowed AIR to examine the sentiment with which VNR reports spoke about progress on SDG-17. Three different models (VADER, BERT and TextBlob) each showed a moderately positive outlook of VNR reports towards progress on SDG-17. For example, Liechtenstein reported that, “Through specific aid and development projects, Liechtenstein supports developing countries as partners in the implementation of the SDGs”. (Government Principality of Liechtenstein, 2019) Exhibit 31 highlights the results of the three different models after conducting sentiment analyses.

Exhibit 31. Sentiment of VNR reports towards SDG-17 progress

More inclusion of statistical data and evaluative evidence in VNR reports can potentially increase the correlation between progress in SDG-17 indicators and sentiment scores of VNR reports. Currently, VNR sentiment scores are not statistically significantly associated with progress in SDG-17 indicators, suggesting that the sentiment scores are not necessarily based on objective measurement. We did not find statistically significant associations between the SDG-17 indicators and the sentiment scores in VNR reports at country-level for any SDG-17 indicator.



04

Key findings on the synthesis questions

This section addresses the four guiding synthesis questions based on the review findings. We start by addressing the first synthesis question based on the most recent Sustainable Development Report (Sachs et al., 2023), followed by a summary of the answers to the second synthesis question based on the case studies, and to the third and fourth synthesis questions based on the synthesis of impact, performance and process evaluations. These responses are linked to Table B-1 in Annex B, which summarizes what works to accelerate SDG-17 indicators and why, and how some initiatives achieve success in SDG-17 progress.

Question 1:

Which SDG-17 targets are currently on track and which are lagging?

There are no SDG-17 targets which are currently on track for achievement. According to the most recent Sustainable Development Report, if current trends continue “not a single SDG is projected to be met by 2030, with the poorest countries struggling the most” (Sachs et al., 2023, pp.4). Some countries have made more progress on SDG-17 indicators, but high-, middle- and low-income countries in all regions of the world continue to face significant challenges in achieving SDG-17 objectives. Exhibit 32 highlights differences on SDG-17 progress across country categories (taken from Sachs et al., 2023), demonstrating that LICs and countries in sub-Saharan Africa face the most significant challenges in achieving SDG-17 indicators. In general, the table shows that LICs, MICs, and HICs all face significant challenges in achieving SDG-17 indicators.

Exhibit 32. Performance on SDG-17 across country categories

Country category	Average performance on SDG-17
East and South Asia	52.7
Eastern Europe and Central Asia	68.9
Latin America and the Caribbean	67.6
Middle East and North Africa	66.8
Oceania	45.8
OECD members	76.1
Small Island Developing States	55.1
Sub-Saharan Africa	46.4
Low-Income Countries	44.8
Lower-Middle Income Countries	53.3
Upper Middle-Income Countries	59.1
High-Income Countries	76.4
World	57.7

Source: Sachs et al., 2023.

Notes: Country-level performance is estimated based on distance to sustainable development targets, and these are then averaged within country categories. Data used for these computations are from official statistics as well as from non-official data sources.

Despite these challenges, there has been some progress in ODA and technology access. Total global ODA remains low, but recently reached 0.36 percent of GNI in 2022 compared to 0.31 percent in 2021. This increase was driven by the COVID-19 pandemic, domestic spending on refugees, and the war in Ukraine (ECOSOC, 2023), suggesting that increases in ODA may not be sustained. With respect to technology, an estimated 66 percent of the world's population used the internet in 2022, compared to 41 percent in 2015.

With respect to finance, LICs face a public debt crisis, especially in sub-Saharan Africa. The total external debt of low- and middle-income countries increased to \$9 trillion in 2021. In November 2022, 37 out of 69 of the world's poorest countries were either at high risk or already in debt distress (ECOSOC, 2023), demonstrating an urgent need to increase government revenue in LICs.

With respect to trade, LDCs did not make sufficient progress. Their share of exports was 1.05 percent in 2021 and the global community did not reach its objective of doubling the LDC share of exports from 1.03 percent in 2011. Moreover, the worldwide tariff average of 2 percent in 2020 has not changed since 2017 (ECOSOC, 2023).

The COVID-19 pandemic also created significant challenges for data, monitoring, and accountability. Following a decrease of \$155 million since 2018, international funding for data and statistics amounted to \$542 million in 2020. Limited human and financial capacity, combined with the consequences of COVID-19, also resulted in the implementation of expired strategic plans for statistical activities (ECOSOC, 2023).

These complex challenges show an urgent need for equitable international partnerships, as highlighted in a recent article by Filho et al. (2022).

Question 2:

Which countries (across contexts) have made the most progress on SDG-17 and why?

Statistical data analysis of SDG tracker data indicated that the countries that made most progress on SDG-17 indicators in the last five years were: Mexico in North America, Latin America and the Caribbean; Myanmar in East Asia and the Pacific; Uzbekistan in Europe and Central Asia; Iraq in the Middle East and North Africa; India in South Asia; and Madagascar in sub-Saharan Africa. Exhibit C-1 in Annex C presents the ranking of SDG-17 performance by region based on a weighted index.

Case studies of seven countries (Peru, Myanmar, Uzbekistan, United Arab Emirates, India, Madagascar and Ireland) selected as part of a positive deviance assessment suggest that democratic reforms were instrumental in achieving SDG-17 progress in low- and middle-income countries. Both Madagascar in sub-Saharan Africa and Myanmar in Southeast Asia had large increases in exports and inward FDI, and attracted more remittances, following democratic reforms.

Trade liberalization also contributed to significant accelerations in SDG-17 indicators in MICs, although the evidence of its importance was less strong in LICs. A regional trade agreement in Uzbekistan also contributed to an acceleration in exports, which could help the country to achieve considerable economic growth. In addition, a trade agreement with China enabled Peru to increase the sustainability of its government debt, though it also resulted in environmental damage.

In India, public-private partnerships were instrumental in facilitating internet access. However, private-sector investments by the Reliance company have primarily benefited urban populations, suggesting that public-sector and private-sector incentives were not always fully aligned when aiming to achieve SDG objectives.

While traditional donors have limited their ODA, case studies from Ireland and the United Arab Emirates highlight how a sub-sample of traditional and new donors have stepped up to increase their ODA. The United Arab Emirates created a Ministry of International Cooperation and Development in 2013, and currently allocates 0.33 percent of its GDP to ODA. The Government of Ireland increased its ODA in 2022 to represent 0.64 percent of GNI, or about \$2.5 billion, with a focus on green initiatives such as climate change adaptation (Government of Ireland, 2019; ADB, 2021; WTO, 2022).

Question 3:

Which initiatives are most effective in improving and accelerating SDG-17 indicators and targets?

Table B-1 in Annex B shows which initiatives are most effective in improving and accelerating SDG-17 indicators and targets. This table includes evidence from impact evaluations, performance and process evaluations and case studies about what works to improve SDG-17 outcomes. The table suggests that some initiatives have higher impacts in MICs than in LICs, and vice versa. Although major evidence gaps remain on what works to improve SDG-17 indicators, this section summarizes what works across the five components in the current study, based on the available evidence.

What works to improve trade indicators? Regional trade agreements have positive impacts on exports in MICs, but they are less effective in improving exports in LICs. In MICs, the effects on exports of export subsidies are smaller than the effects of regional trade agreements, though they have had positive effects in some MICs. Major evidence gaps remain on the effectiveness of export subsidies in LICs. Cluster development policies that group together businesses in a geographic zone to facilitate coordination for innovation have also had positive effects on exports in some MICs. However, very few studies have assessed the impact of cluster development policies to date.

What works to improve finance indicators? VAT taxes are effective in increasing government revenue in MICs, but are less effective in LICs, which need different tax collection initiatives to increase government revenue. In MICs, it is likely that VAT taxes can fully compensate for reductions in government revenue caused by tariff reductions. In LICs, community-based tax data collection, context-specific messages to increase tax revenue, or approaches that encourage citizens to pay taxes are more effective than VAT taxes in improving government revenue. The magnitude of the effects of these initiatives is highly context-specific, suggesting that LICs could benefit from experimentation to select the finance initiatives that are most effective.

What works to improve technology indicators? Green finance initiatives and the expansion of broadband internet have resulted in innovation to encourage environmentally friendly production practices or green innovation in large Asian countries. However, the effects of these initiatives are relatively small. Countries may need larger investments in green finance initiatives to achieve more progress in SDG-17 technology indicators. Furthermore, current evidence is not sufficient to assess how to improve SDG-17 technology indicators outside of large Asian countries.

What works to improve the effectiveness of initiatives focused on systemic issues, such as partnerships? Partnerships can increase their effectiveness in achieving policy outcomes when partners are able to identify the priorities of different parties and outline specific pathways that will meet these priorities. Using principles of horizontal cooperation such as trust and mutual ownership, partners with different incentives (e.g., private sector partners; low-, middle- and high-income countries) can achieve progress on SDG-17 indicators. Currently, these principles are most effectively demonstrated in South-South and triangular partnerships, where Northern partners serve as effective brokers between Southern partners.

What works to improve the effectiveness of capacity-building? Initiatives that identify specific outcomes of capacity-building activities are more effective in catalysing concrete changes to policy and practice. Currently, most initiatives focus on capacity-building at the output level (e.g., trainings, knowledge sharing), but do not lead to direct policy change and very few impact, performance and process evaluations focus on what works to improve statistical capacity-building. The evidence in this report points to weak programme monitoring and data disaggregation, elements that can contribute to generating evidence that fully incorporates equity considerations to examine what works for those most likely to be left behind.

Question 4:

How and why are some initiatives more successful in achieving progress towards SDG-17 related outcomes?

Why are trade agreements between high- and low-income countries less effective? Regional and preferential trade agreements between high- and low-income countries have lower impacts than trade agreements with MICs because food and other regulations limit the potential of LICs to increase their exports. Limited manufacturing capacity in LICs also reduces their ability to benefit from regional trade agreements. Global trade agreements have larger impacts on HIC and MIC exports than on LIC exports because of greater institutional trust and more extensive product differentiation in HICs and MICs.

Why are VAT taxes more effective in middle- than low-income countries? VAT taxes have higher impacts on tax-revenue in MICs than LICs because MICs have more tax collection capacity. Further, LICs have a smaller formal sector, which limits their ability to raise taxes using VAT. Community-based tax data collection and messages to encourage citizens to pay their taxes can support LICs in increasing government revenue from the informal sector.

Why are the effects of green finance initiatives too small to achieve acceleration in green technology adoption in large Asian countries? Green finance initiatives may require more resources to have more substantial impacts on the investment behaviour of highly polluting firms. The effects of current initiatives are likely to be too small to accelerate progress in SDG-17 indicators because of insufficient incentives to make major investments in green innovation.

Why do South-South and trilateral partnership initiatives show more promise than North-South partnership initiatives in achieving progress towards SDG-17 related outcomes? South-South and trilateral partnerships show promise in achieving SDG-17 outcomes because low- and middle-income partners often have similar experiences and interests (e.g., regional integration and economic growth), which fosters trust, mutual ownership and equal power relationships. The inclusion of such features can contribute to achieving SDG-17 progress, regardless of the partnership objectives or composition of partners (i.e., South-South vs. North-South partnerships or trilateral cooperation), and can motivate partners to fund and institutionalize activities over the long term. Although North-South partnerships are not ineffective in achieving progress towards SDG outcomes, evidence shows that Northern partners often fail to design informed, contextualized initiatives based on equal power relationships that account for all partner priorities. However, it is also important to note that South-South partnerships plan for sustainability beyond outputs, as initiatives do not necessarily move past knowledge exchange to establishing and achieving concrete policy outcomes (UNDP IEO, 2021b).

Why is capacity-building more effective when initiatives focus on concrete outcomes? Capacity-building initiatives that identify and focus on mutually agreed outcomes are more effective because partners understand how their participation will address concrete needs and they are motivated by addressing those needs. Initiatives that focus only on activities and outputs, such as sharing of knowledge and resources, often fail to identify how their efforts lead to actual increases in capacity. Conversely, initiatives that design an approach to institutionalizing the support needed for further follow-up are more likely to have long-term success. This is also evident in engagements with private partners, who are more likely to partner with LIC partners when there is an explicit link to long-term growth or expansion of their businesses.



05

**How SDG-17 initiatives
can influence other
SDGs**

While each of the lessons can guide decisions on how to accelerate progress towards SDG-17, SDG-17 initiatives can also influence the achievement of other SDG objectives. In this section, we triangulate the evidence in this report with evidence from six additional systematic reviews,²⁹ and the strategic plans of various implementing agencies, to understand how SDG-17 can serve as an enabler for achieving other SDG objectives and how the achievement of multiple SDGs may also require trade-offs. The reviews focused on the impact of public debt on economic growth (Rahman et al., 2019), the impact of mobile financial services on financial inclusion and income (Alampay & Moshi, 2018; Aron, 2019), and the impact of trade liberalization on education, income, economic growth and environmental outcomes (Balogh & Mizik, 2021; Sun et al., 2019). We link these lessons on how SDG-17 initiatives could influence other SDG objectives to the conceptual framework.

5.1 The Partnership Pillar as an enabler for achieving other SDG objectives

The conceptual framework guiding the interpretation of the evidence synthesis (Exhibit 2) highlights how SDG-17, or the Partnership Pillar, emphasizes the importance of revitalizing the Global Partnership for Sustainable Development. In this way, SDG-17 can serve as an enabler for achieving progress on other SDG objectives (UNFPA Policy and Strategy Division, 2022; UNICEF, 2023; UN Women Independent Evaluation Service, 2021). For example, improvements in export promotion policies can result in regions specializing in the export of more sophisticated goods under SDG-17. Subsequent increases in the value of exports can, in turn, result in accelerated, sustained, inclusive and sustainable economic growth under SDG-8 (i.e., Yao, 2006; Jarreau & Poncet, 2012), which can then reduce extreme poverty under SDG-1 (i.e., Dollar & Kraay, 2002). Similarly, improvements in tax collection policies can increase tax revenue (e.g., Khan et al., 2016), which can, in turn, result in increases in education or health expenditure under SDG-4 and SDG-3. In the technology space, innovation subsidies can increase the adoption of solar energy or other clean technologies (e.g., Popp, 2020), which can then result in improved environmental outcomes under SDG-15.

Evidence also points to some opportunities to capitalize on investments in achieving one SDG to achieve others. For example, some impact evaluations suggest that green finance initiatives may facilitate technology adoption, which could, in turn, enable green innovation. The systematic reviews which have been included do not present conclusive evidence on these mechanisms.

5.2 Trade-offs in achieving the Sustainable Development Goals

The current evidence synthesis suggests various ways in which SDG-17 initiatives can improve other SDG outcomes. However, evidence from existing systematic reviews also shows that achieving these SDG objectives can require trade-offs. For example, while SDG-17 progress can result in significant improvements in economic growth due to trade liberalization (Balogh & Mizik, 2021), the elimination of trade barriers can also result in increasing greenhouse gas emissions and other environmental challenges (Balogh & Mizik, 2021). Similar trade-offs are evident in the case studies of the current review, that examine the impact of trade liberalization in the various case study countries, as well as the contrast between the growth and industrialization priorities of LICs and the environmental priorities of HICs and international organizations (UNDP IEO, 2021a).

²⁹ In line with the protocol, we reviewed the quantitative systematic reviews found during the search. These papers better lent themselves to assessing the lessons and linkages between different SDGs in a discussion.

Trade-offs are also evident across types of partnerships. The current evidence synthesis shows the importance of cooperation to achieve SDG objectives, despite countries facing different priorities and incentives. The first lesson shows that partners' incentives for collaborating on SDG-17 components are influenced by their interests and priorities, which are often similar for countries with the same income status, but different for countries with other income levels. Addressing these needs requires trade-offs, where the priority given to SDGs varies by partner. Such trade-offs in priorities are also evidenced in financing, which is lacking across all SDGs (UNDP IEO, 2022a). Accelerating progress towards SDG objectives is only likely to be feasible when low-, middle- and high-income countries establish horizontal relationships based on trust and autonomy and develop joint strategies to achieve SDG objectives.

5.3 Designing informed initiatives with mutually agreed outcomes

Across all topics, it is imperative to use a theory of change or logical framework to design, monitor, evaluate and discuss initiatives. Initiatives that clearly identify the impact pathways between activities, outputs, outcomes and impacts are more likely to lead to positive change in policy and practice across SDGs. Finally, data show the importance of co-design approaches to engagement in all types of partnerships, a strategy that other literature has also shown to increase the likelihood of longer-term engagement leading to priority outcomes (Spanish Ministry of Foreign Affairs, 2023).

In addition, data from the review indicate that planning for sustainability from the outset of an initiative allows more time to consolidate and institutionalize an approach, thus making long-term sustainability more likely. The current review, as well as other studies, have shown the importance of a longer time horizon which is needed to form lasting partnerships that lead to concrete outcomes (UNDP IEO, 2021a). Using this approach, partners can also decide whether initiatives require current trade-offs and how such trade-offs can be accounted for in the future. The use of data to track progress on SDG achievement is crucial for achieving outcomes, but collection of data on SDG progress is currently insufficient, especially for addressing the leave no one behind principle (UNDP IEO, 2021b, 2022b)



06

**Areas for future
research, evaluation
and syntheses**

This review is the first to provide important evidence on what works to improve SDG-17 outcomes. It has been derived from 184 impact evaluations and 70 performance and process evaluations on SDG-17, but the evidence is fragmented and only focuses on a small number of contexts and programmes. We found only a small number of programme types with more than five impact evaluations, indicating a need for more RCTs and quasi-experimental studies. The impact evaluation evidence that does exist focuses on Asia, and especially China, indicating that more evidence is needed for different contexts. There are almost no mixed-methods studies which examine the process of implementation in tandem with an evaluation of impacts, indicating a key gap in understanding the specific mechanisms that contribute to change. In addition, the current review includes very little evidence on the cost and cost-effectiveness of SDG-17 initiatives. As a result of these gaps, it is challenging to assess the effects of SDG-17 initiatives on SDG-17 outcomes. For example, AIR only conducted a meta-analysis of trade liberalization, and this only focused on a limited number of contexts. This suggests that increasing the geographic scope of impact evaluations could generate important lessons on how to accelerate SDG-17 objectives (e.g., through additional meta-analyses that include a wider variety of contexts).

Increasing the contextual coverage of evaluations

One way to increase the geographic scope of impact evaluations is to have a more explicit focus on experimentation. One reason for the large number of quasi-experimental impact evaluations focused on China is the country's experience with 'experimental gradualism' (Heilmann, 2008; Rodrik, 2018a). China introduced many experimental regulations, experimental points and experimental zones that enabled the country to learn from its past experience and enabled researchers and evaluators to conduct various quasi-experimental studies. As discussed by Rodrik (2018a), the Chinese Government also learned a great deal about what works to improve economic growth. Similarly, the lessons on taxation suggest that different methods to collect taxes and encourage people to pay their taxes can have very different effects. These findings suggest that countries can learn from experimentation, while offering researchers and evaluators the opportunity to increase the evidence base on SDG-17 initiatives using quasi-experimental or experimental methods.

Increasing the rigour of evaluations

It is also important to increase the rigour of impact evaluations. As discussed in the risk of bias assessment, fewer than half of the impact evaluations have a low risk of selection or performance bias. In addition, only very few evaluations use a mixed-methods approach that combines impact with performance or process evaluation. While it may not be feasible to substantially increase the number of RCTs of SDG-17 initiatives, these findings show an important need for increasing the rigour of quasi-experimental studies, and combining them with performance or process evaluations.

6.1 SDG-17 evidence gaps

Analyses of the existing evidence and discussions with policymakers and member States highlight key evidence gaps related to trade, finance, technology, systemic issues and capacity-building. These are particularly critical because of the multiple compounding crises that limit global ability to achieve the SDGs:

1. **Public debt crises** faced in various low-and-middle-income countries, especially in sub-Saharan Africa, are threatening macroeconomic stability and debt sustainability
2. **Climate change** results in more frequent and more severe extreme weather events (e.g., droughts and floods), driving people into poverty.
3. **Global trade** is slowing because of the war in Ukraine, reversing the pattern of global economic growth which is trade-led.
4. **Energy prices have surged** because of the war in Ukraine, showing the need to improve energy-efficiency.
5. **Development cooperation is entering a period of interdependence** in which connectivity between States is unavoidable, creating opportunities for solutions as well as challenges.

The global community will require more evidence to mitigate these challenges and to understand how approaches can better account for equity. This section presents suggestions for future research to fill the evidence gaps, including but not limited to research related to each of these crises. It also considers how research can account for trade-offs in resolving these crises.

Public debt crisis

Despite the current global debt crisis with many countries in sub-Saharan Africa facing challenges repaying government debt, the existing evidence on finance focuses primarily on how to generate tax revenue, with limited emphasis on how to resolve public debt crises. Multiple policymakers have highlighted the importance of generating evidence on how to resolve the debt crisis, a problem which is likely to be compounded by illicit financial flows. However, as discussed above, major evidence gaps remain on the effects of public debt and related financial realities on economic growth, and almost no impact evaluations focus on the impact of programmes designed to mitigate the consequences of debt crises.

While it may not be feasible to design impact evaluations or quasi-experimental studies on how to mitigate the economic consequences of the public debt crisis, future research could, for example, evaluate the strengths and challenges of the implementation of the Integrated National Financing Framework in various contexts. Integrated national financing frameworks help countries to strengthen planning processes and overcome existing impediments to financing the achievement of SDGs at national level, using both domestic and international sources of public and private finance. These frameworks allow countries to develop a strategy to increase investment, manage risks and achieve sustainable development priorities, as identified in a country's national sustainable development strategy (Integrated National Financing Frameworks, n.d.).

Increasing trade and exports in an environmentally sustainable manner

Achieving SDG-17 objectives requires substantial increases in trade volumes to enable economic growth, especially in LICs. Existing evidence suggests that achieving this goal requires an emphasis on tariff reductions and regional trade agreements for MICs, as well as a reduction of non-tariff barriers for LICs. However, increases in exports, which lead to economic growth (SDG-8), may also increase environmental pollution and contribute to CO₂ emissions and climate change, impeding progress towards SDG-13.

Important evidence gaps remain on how to increase trade in an environmentally sustainable manner. More evidence is needed to determine how to increase exports without increasing CO₂ emissions, in addition to ways in which partners can compromise to achieve these potentially divergent priorities. Future impact, performance and process evaluations could focus on the mechanisms and effects of different approaches to increase exports on both trade and environmental outcomes.

Global trade to benefit low-income countries

While LIC exports can increase after tariff reductions, limited manufacturing capacity may reduce the ability of LICs to benefit substantially from regional trade agreements and the elimination of non-tariff barriers. As a result, it remains unclear how to accelerate progress in exports in LICs, particularly because the evidence synthesis only shows limited effects of export subsidies in MICs. Evidence is also limited on how approaches to trade facilitation through capacity-building and other support can increase exports in LICs. Current evaluations have found that trade initiatives missed opportunities to connect their activities to trade outcomes and used approaches that only partially addressed needs.

To address these evidence gaps, future research could focus on clustering businesses to improve innovation in LICs and evaluating the implementation of initiatives that facilitate trade through complementary investments in capacity development, infrastructure and access to finance, depending on needs. While AIR only found two impact evaluations on cluster policies, the existing evidence indicates that cluster policies to improve innovation are a promising alternative to export subsidies. Current evidence on cluster policies focuses on MICs and, given their limited manufacturing capacity, it is possibly more important to generate evidence on the effects of cluster policies to improve innovation in LICs.

Increasing energy-efficiency and encouraging environmentally sustainable production

The global energy crisis has led to a surge in energy prices, showing the importance of improving energy-efficiency, increasing the use of clean energy and in general encouraging more environmentally sustainable production, especially to mitigate the effects of climate change. The current evidence synthesis, which primarily focuses on more environmentally sustainable production through green innovation,³⁰ shows that green finance initiatives have the potential to increase green innovation. However, the evidence exclusively focuses on China, and the effects of green finance initiatives are likely to be too small to accelerate the way in which countries can leverage SDG-17 to achieve energy goals. At the same time, historical donors, such as Ireland which was selected as part of the positive deviance assessment, increasingly focus on climate change in their ODA.

These trends show the importance of increasing the number of impact, performance and process evaluations that focus on environmentally sustainable practices (including but not limited to energy-efficiency) outside of China. Future research could focus on the impact of ODA on the adoption of environmentally sustainable practices in low- and middle-income countries. Such research would also benefit from a strong focus on the engagement of the private sector in public-private partnerships, considering the importance of that sector for the development of environmentally sustainable practices.

Development cooperation enters a period of interdependence

A reduction in ODA from historical donors shows the importance of increasing tax collection capacity in LICs that currently depend on ODA for their government revenue. In addition, an analysis of trends highlights a need to examine the impact of ODA provided by new donors. Existing impact evaluations already show how tax reforms can increase government revenue in LICs. However, the effects of tax reform seem to be highly context-specific, and we found no performance or process evaluations examining the implementation of tax reform or the population's experience and perception of such reform.

Based on these trends and findings, future research could focus on examining the impact of ODA from new donors, with additional research on the most effective tax reforms in different contexts. Research could also examine contextually relevant mechanisms that facilitate implementation of and compliance with tax reforms by businesses and the general population. Achieving this goal will require quasi-experimental studies on the impact of ODA from new donors and mixed-methods research to assess the mechanisms underlying the impact of tax reforms in LICs.

The findings from the current synthesis on increasing engagement in South-South and trilateral cooperation also show the importance of strengthening the data on mechanisms that facilitate these types of partnerships. In addition, research is needed on how North-South and public-private partnerships can adapt to the new period of interdependence.

Need for additional and better data to account for equity challenges

The current evidence synthesis shows a lack of focus on equity, both on the part of programmes evaluated in the performance and process evaluations and the impact evaluations themselves. Although this finding is consistent with other reviews (e.g., Spanish Ministry of Foreign Affairs, 2023), it is surprising, given the focus on equity across implementing agencies and donors (UNDP IEO, 2022b; UNFPA, 2019; UNICEF, 2021). Many of the initiatives included in the evidence synthesis had macro-level objectives, but failed to consider the potentially large-scale impacts of policy-level changes on those most likely to be left behind. This is a missed opportunity to learn how to achieve SDG-17 objectives. For example, how do different approaches to trade reform affect women and low-income smallholder producers? How do (on average) lower education levels and gender norms affect the ability of female entrepreneurs to comply with export requirements?

30 It is likely that the evidence synthesis on the Planet Pillar will more explicitly emphasize the energy crisis.

These challenges show the importance of data tracking before, during and after initiatives. Initiatives can ensure the inclusion of subgroups that are most likely to be left behind by conducting an initial problem analysis on the specific needs of these populations and addressing any resulting concerns. Performance and process evaluations showed an absence of these considerations, and some capacity-building trainings failed to address the most pressing challenges for producers. Evaluators should also ensure sufficient collection and analysis of data related to these subgroups so they can monitor the effects of programmes on vulnerable populations. This is particularly important because the systematic reviews that have been included also show some evidence that trade liberalization may place pressure on lower-skilled jobs in HICs, suggesting that it may have negative effects on low-income households in those countries (Sun et al., 2019).

One way to improve data collection is by increasing the focus on statistical capacity-building. More rigorous research is needed on how to improve statistical capacity over the long term, to generate stronger conclusions about progress related to statistical capacity-building, including addressing questions such as: how do countries implement their national statistical legislation and plans and what are their challenges (indicators 17.18.2 and 17.18.3)? What are the strengths and challenges associated with countries which have recently begun conducting censuses (indicator 17.19.2)? In addition, it is critical to examine how statistical capacity-building initiatives can contribute to the collection of data on equity, so that future impact, performance and process evaluations can more easily integrate gender into their research questions. In this way, impact, performance and process evaluations can include research questions with greater relevance to those most likely to be left behind. Statistical capacity is a cross-cutting issue across multiple SDGs, and therefore it is an important indicator to consider in the forthcoming Coalition syntheses where more specific and concrete data have been collected on data capacity, for example, in tracking data on education, health and other social indicators.

Need for living evidence syntheses

The Coalition would also benefit from regularly updating the evidence synthesis related to the Partnership Pillar. Ideally, this would happen through a living evidence synthesis, in which the synthesis is updated when new impact, performance and process evaluations are generated and included. This would also help the Coalition to continue updating its lessons related to SDG-17.

Need for additional evidence syntheses

Given the multiple compounding crises and the intersections between SDG-17 and other SDGs, it is critical to follow-up on this evidence synthesis with additional evidence syntheses on the People, Planet, Prosperity and Peace pillars. The Coalition can play a critical role in providing the global community with the evidence it needs.

Different evidence syntheses could use different strategies to respond appropriately to the evidence needs of policymakers and member States. For example, the People Pillar will have an abundance of evidence on the impact of different social protection, health and education initiatives on economic, health, education and nutrition outcomes in low- and middle-income countries. In this case, the synthesis could focus on more targeted research questions on the impact of specific initiatives on outcomes identified by key stakeholders. The synthesis of the People Pillar could also benefit from existing systematic reviews of these topics. For example, it could generate lessons about why and how certain initiatives have greater impact than others, by combining a synthesis of existing systematic reviews with a synthesis of performance and process evaluations. This is because it is likely that existing systematic reviews will almost exclusively include impact evaluations, rather than performance and process evaluations.

The volume of evidence for this pillar may be too large to collate evidence from all impact and performance and process evaluations. One option may be to study only those performance and process evaluations which are part of a mixed methods study on impact.

The Planet and Prosperity pillars could emphasize the specific priorities of key stakeholders (e.g., climate change or the energy crisis) to ensure a relevant evidence synthesis, but such a focus may have less evidence available from systematic reviews. Finally, it is likely that the Peace Pillar will have less evidence available than other pillars, and may benefit from a broader focus, like the Partnership Pillar. In all cases, the syntheses will require a scoping phase to jointly determine the focus in close partnership with policymakers and practitioners.



07

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7.2 Included Performance and Process Evaluations

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Annex A: Research Questions

Exhibit A-1: Detailed Research Questions and Associated Methods

Research questions	Methods
Voluntary national review data analysis	
<ul style="list-style-type: none"> • What factors contribute to achieving SDG-17 objectives according to VNR data? • What themes do the VNR data uncover about progress towards the SDG-17 objectives? 	<ul style="list-style-type: none"> • Text analysis of VNR data, including natural language processing and sentiment analysis
Positive deviance analysis	
<ul style="list-style-type: none"> • Which SDG-17 targets are currently on track, and which are lagging? How does this differ by country? • How have the COVID-19 pandemic and other crises influenced progress towards SDG-17? • What countries made more progress in achieving progress towards SDG-17? How did their policies and contextual characteristics differ from countries that made less progress in achieving progress towards SDG-17? 	<ul style="list-style-type: none"> • Statistical analysis of country-level SDG-17 indicators • Desk review of relationship between COVID-19 and SDG-17 indicators • In-depth statistical analyses that include comparisons between four countries (in 4 different regions) that performed well on SDG-17 indicators with other countries that performed less well (in the same regions). • Desk review of four case study countries that performed well on SDG-17 indicators, including an analysis of the influence of COVID-19 and other crises.
Evidence synthesis of impact evaluations	
<ul style="list-style-type: none"> • What is the available evidence on the impact of trade, finance, technology, systemic issues, and capacity-building interventions on SDG-17 indicators? • Which trade, finance, technology, systemic issue, and capacity-building interventions are most effective in improving and accelerating SDG-17 indicators? • What is the impact of trade policies, programs, and interventions on SDG-17 indicators (e.g., export values, export diversification, etc.) • What is the impact of technology policies, programs, and interventions on SDG-17 indicators? (e.g., internet access, mobile banking access, etc.) • What is the impact of finance policies, programs, and interventions on SDG-17 indicators (e.g., tax revenue, foreign direct investment, etc.) • What is the impact of capacity-building policies, programs, and interventions (e.g., support for national plans through North-South partnerships, South-South partnerships, triangular cooperation, statistical capacity-building, and capacity-building for evidence use) on SDG-17 indicators? What is the impact of systemic issue policies, programs, and interventions (e.g., multi-stakeholder partnerships) on SDG-17 indicators? 	<ul style="list-style-type: none"> • Narrative synthesis of experimental and quasi-experimental studies • Meta-analysis of experimental and quasi-experimental studies when more than three studies are available that combine the same interventions and outcomes • Narrative synthesis to analyze potential heterogenous effects by gender, intersectionality, geography (e.g., income and human development status), and COVID-19 incidence if sufficient studies are available • Narrative synthesis to examine the role of partnerships, systemic issues, and capacity-building in achieving SDG-17 indicators • Risk of bias assessment of experimental and quasi-experimental studies

Research questions	Methods
Evidence synthesis of impact evaluations	
<ul style="list-style-type: none"> • How do partnerships, capacity-building and systemic issues influence positively or hinder the impact of trade, finance, and technology interventions? • How do gender and age considerations, in policies, programs, and interventions related to SDG-17 (e.g., gender mainstreaming, the sex and age of program participants, gender norms, women's decision-making power and other gender and age considerations) influence positively or hinder the effects of trade, finance, technology, systemic issue, and capacity-building interventions? • How does geography (e.g., income status, human development status, region) influence positively or hinder the effects of trade, finance, technology, systemic issue, and capacity-building interventions? • How do COVID-19 incidence and restrictions and other crises influence positively or hinder the effects of trade, finance, technology, systemic issue, and capacity-building interventions? 	<ul style="list-style-type: none"> • Triangulation of impact estimates with estimates of costs and cost-effectiveness • Triangulation of experimental and quasi-experimental studies with evidence from performance and process evaluations
Evidence synthesis of performance and process evaluations	
<ul style="list-style-type: none"> • Why and how are some interventions more or less successful in achieving progress towards SDG-17? • What does the evidence say about what does and what does not work to implement effective trade, finance, technology, systemic issue, and capacity-building policies, programs, and interventions under SDG-17? How equitable and environmentally sustainable are the trade, finance, technology, systemic issue, and capacity-building policies, programs, and interventions that work? • Under what conditions (e.g., income status, human development status, region, gender, age) were the interventions most effective? • What are the main obstacles that need to be removed to unleash the full potential of the Partnership Pillar of the SDGs? To what extent do partnerships encourage ownership, alignment, harmonization, results, and mutual accountability (Paris Declaration) in the areas of trade, finance, and technology? • How do partners approach capacity-building and systemic issues in the areas of trade, finance, and technology? • What is the available evidence on how to achieve progress on statistical capacity-building and capacity-building on the generation and use of evidence? 	<ul style="list-style-type: none"> • Qualitative thematic analysis combining deductive (top-down) and inductive (bottom-up) approaches • Analysis of UN capacity frameworks to assess the role of capacity-building in achieving SDG-17 indicators • Quality appraisal of performance and process evaluations • Triangulation of evidence from performance and process evaluations with impact evaluation estimates

Research questions	Methods
Evidence synthesis of performance and process evaluations	
<ul style="list-style-type: none"> How do partnerships help address systemic issues such as policy coherence, policy coordination, infrastructure, and country planning in the areas of trade, finance, and technology? 	
Evidence synthesis of systematic reviews, evidence syntheses, and other comprehensive literature reviews	
<ul style="list-style-type: none"> What is the available evidence on the impact of trade, finance, technology, and capacity-building interventions related to statistics, evidence generation and use on other SDG goals (e.g, economic growth, poverty reduction, food security, nutrition, education, health, environmental outcomes, gender equality)? 	<ul style="list-style-type: none"> Synthesis of systematic reviews and evidence syntheses on the relationship between trade, finance, technology, and capacity-building interventions related to statistics, evidence generation, and use and other SDG indicators Triangulation of evidence from systematic reviews with data from the synthesis of impact evaluations

Annex B: Promising Initiatives to Achieve SDG-17 Objectives

Exhibit B-1: Most effective approaches to improve and accelerate SDG-17 indicators and targets

Income category	Country examples	SDG-17 Outcome Domain			
		Finance (Targets 17.1-17.5, 17.13)	Technology (Targets 17.6-17.8)	Trade (Targets 17.10-17.13)	Systemic Issues (Partnerships) and Capacity Development (Targets 17.14-17.19, 17.9)
Low-income	Madagascar (sub-Saharan Africa or SSA)	Community-based tax collection (e.g., by chiefs) for tax revenues*	Co-financing arrangements for rural technology diffusion	Tariff reductions*	National-level statistical trainings, advisory services, and tools for SDG reporting
	Democratic Republic of Congo (SSA)	Tax reform for tax revenues, but value-added taxes will likely only generate more tax revenues in the long term*			
	Ethiopia (SSA)	Tax incentive messages on tax revenues, though the effects depend on context and the implementation modality*			
	Rwanda (SSA)				
	Togo (SSA)	Tax incentive messages on tax revenues, though the effects depend on context and the implementation modality*			
	Haiti (Caribbean)				
	Nicaragua (Latin America)	Tax incentive messages on tax revenues, though the effects depend on context and the implementation modality*			
	Chad (SSA)				
Central African Republic (SSA)					
Middle-income	India (South Asia)	Incentives for tax collectors on tax revenues*	Private-sector investments on internet access*	Standardization of export requirements across countries on exportsSimplification of trade rules on exportsBroadband infrastructure on export values*	South-South partnerships for understanding priorities, contexts, and constraints
	Pakistan (South Asia)	Tax incentive messages on tax revenues*	Green finance on innovation*		
	Myanmar (South-East Asia)	Green finance on Foreign Direct Investment*	Broadband infrastructure expansion on green innovation*		
	Cameroon (SSA)	Value-added taxes on government revenues*	Broadband infrastructure expansion on technology diffusion*		
	Senegal (SSA)				
	Cambodia (South-East Asia)	Trade liberalization on inward and outward foreign direct investment*	Broadband infrastructure expansion on digitization and digital financial inclusion*		
	China (East Asia)				
	Uzbekistan (East Asia)	Trade liberalization on debt sustainability			
	Peru (Latin America)				
	Brazil (Latin America)				
	Uruguay (Latin America)				
	Colombia (Latin America)				
	Dominican Republic (Caribbean)				
	Egypt (Middle East & North Africa)				
	Tunisia (Middle East & North Africa)				
Turkey (Europe and Central Asia)					

Income category	Country examples	SDG-17 Outcome Domain			
		Finance (Targets 17.1-17.5, 17.13)	Technology (Targets 17.6-17.8)	Trade (Targets 17.10-17.13)	Systemic Issues (Partnerships) and Capacity Development (Targets 17.14-17.19, 17.9)
High-income	<p>United Arab Emirates (Middle East & North Africa)</p> <p>The Netherlands (Europe)</p> <p>Belgium (Europe)</p> <p>Multinational organizations (e.g., UNICEF, Global Business Network, the World Bank)</p>	Diversifying income tax sources on tax revenue			<p>Serving as a neutral, 3rd party broker in trilateral partnerships.</p> <p>Use of horizontal cooperation principles for funding modalities, partnership design, and governance structures to increase partnership longevity and cooperation.</p> <p>In-depth knowledge, local presence, and consideration of LMIC context on initiative efficiency and effectiveness.</p> <p>National-level statistical trainings, advisory services, and tools on SDG reporting.</p>
Cross-cutting	<ul style="list-style-type: none"> • Clear governance structure with plans and funding for coordination for partnership effectiveness and longevity • Building in mechanisms to fund and institutionalize activities to sustain partnerships. • Conducting problem analysis to ensure relevance for partners' varying priorities on partner engagement and ownership. • Co-creating theories or change on achieving initiative outcomes and mitigating risk. • Participatory planning and development for partner ownership. • Ensuring relevance of initiative to partners' varying interests for engagement and ownership. 				

* Evidence available from impact evaluations

Annex C: Ranking of Countries by Region to Guide Selection of Case Studies

Exhibit C-1. Ranking of Countries by Region

Sl. No.	North America, Latin America, and the Caribbean	East Asia and Pacific	Europe and Central Asia	Middle East and North Africa	South Asia	Sub-Saharan Africa
1.	Mexico	Myanmar	Uzbekistan	Iraq	India	Madagascar
2.	Peru	Mongolia	Ukraine	United Arab Emirates	Pakistan	Sudan
3.	Nicaragua	Kiribati	Lithuania	Lebanon	Sri Lanka	Burundi
4.	Haiti	Thailand	Serbia	Algeria	Afghanistan	Mozambique
5.	Colombia	Vietnam	Kazakhstan	Bahrain	Nepal	Central African Republic
6.	Jamaica	Solomon Islands	Ireland	Morocco	Bhutan	Somalia

226. AIR selected case study countries for in-depth document review and statistical analyses based on the following criteria:

- (a) High relative performance on SDG-17 indicators relative to other countries in the region in the last 5-10 years (this report only presents the ranking for the last 5 years, but AIR also considered the ranking of the last 10 years).
- (b) Ability to serve as an example for other countries in the region; the countries should not have an economic status that is unique to the region (e.g., countries that recently discovered oil, or small island states).
- (c) Diversity in income-level (i.e., high-income, upper middle income, lower middle income and low-income) of the case study countries across regions.

227. AIR also limited the number of case studies which are in active conflict because of potential challenges with the reliability of data covering these volatile situations. Two countries in active conflict scored the highest in their region (Iraq and Myanmar). But AIR only selected one of these countries (Myanmar).

228. Finally, AIR decided to include one historical donor country that provides Official Development Assistance (ODA) to low- and middle-income countries because of the focus of SDG-17 on partnerships. Historical donor countries do not score in the top five of the rankings discussed above. However, the focus of the Partnership Pillar on cooperation between donor and low- and middle-income countries created a need to include a high-scoring historical donor country as a positive deviance case.

Annex D: Initiatives and Outcomes of Interest that Guided the Search Strategy

Exhibit D-1. SDG-17 Initiatives and Outcomes

Initiatives and Outcomes
Finance
Aid dependency
Blended finance
Budget deficit
Budget support
Capital flow
Carbon finance
Clean energy finance
Climate finance
Concessional finance
Debt as a percentage of GDP
Debt finance
Debt relief
Debt restructure
Debt service
Debt sustainability
Direct budget support
Domestic finance
Domestic resource mobilization
Domestic revenue
Domestic tax
Environmental finance
Environmental tax
Export value added tax
External debt
Finance corporation
Government deficit
Government revenue
Green finance
Guarantee agency
Guarantee instrument
Highly indebted poor country
HIPC
Income tax
International monetary
Investment guarantee agency

Initiatives and Outcomes
Finance
Investment promotion
Migrant income
Multi-lateral investment guarantee
Multilateral investment guarantee
National budget support
Technology
Blockchain
Broadband
Broadband access
Communication technology
Digital bank account
Digital divide
Digital technology
Digital transformation
Digital wallets
Energy technology
Hotspot
ICT
Information and communication technology
Information technology
Internet access
Internet use
Laptop
Mobile internet access
Mobile money
Mobile phone
MPESA
Phone
Smart phone
Smartphone
Social media
Solar device
Solar panel
Solar power
Solar system
Tablet
Technology access
Technology bank
Technology diffusion
Technology innovation
WhatsApp
Capacity-building
Capacity-building
Capacity development

Initiatives and Outcomes
Capacity-building
Capacity strengthening
Capacity-building intervention
Implementation management
National capacity
National planning
Public sector training
SDG planning
Technical assistance to government
Training of government
Trade
Duty-free
Export competitiveness
Export market
Export processing zone
Export promotion
Export sector
Export subsidies
Export subsidy
Export value
Foreign Direct Investment
Free Trade Agreement
Free trade union
Green procurement rules
Import
International trade
Intraregional trade
Non-tariff barrier
Preferential rules of origin
Quantity restriction
Quota free
Regional integration
Regional trade
Rules based trade
Tariff
Tariff average
Tariff reduction
Trade barrier
Trade liberalization
Trade quota
Trade reform
Trade support
Weighted average tariff
Weighted tariff average

Initiatives and Outcomes
Systemic Issues
Civil society organization
Country ownership
Data monitoring accountability
Development co-operation
Development cooperation
Development impact bond
Economic co-operation
Economic cooperation
Global coordination
Global partnership
Impact investment
Institutional coherence
Matching grant
Multi stakeholder
Multi-stakeholder
Multiple stakeholders
National statistical office
National statistical plan
National statistical system
North-south
Performance based financing
Performance-based financing
Policy coherence
Public procurement
Public-private partnership
SDG policy
South-South
Statistical legislation
Sustainable Development Goal policy
Triangular cooperation

Annex E: Risk of Bias Assessment

Exhibit E-1. Risk of Bias Tool for Experimental and Quasi-Experimental Studies

Ask these questions for all quantitative studies

Are the mean values or the distributions of the covariates at baseline statistically different for the control or comparison group ($p < 0.05$)?

Are these differences controlled for using covariate analysis in the impact evaluation?

Is difference-in-difference estimation used?

If the study is quasi-experimental and uses difference-in-difference estimation, is it showing that the parallel trends assumption is valid?

If the study does not use difference-in-difference, does the study control for baseline values of the outcome of interest (ANCOVA)?

Attrition

Is the attrition rate from the study below 10%?

Is the attrition rate statistically significantly different between the treatment and comparison group?

Spillovers and Contamination

Are comparisons sufficiently isolated from the intervention (e.g., control or comparison group are sufficiently geographically separated)?

Contamination: does the control group receive the intervention?

Contamination: if the control group receives the intervention but for a shorter amount of time, does the study assess the likelihood that the control group has received equal benefits as the treatment group?

Sample Size

Does the study account for lack of independence between observations within assignment clusters if the outcome variables are clustered?

Is the sample size likely to be sufficient to find significant effects of the intervention?

Ask questions below only for studies that apply randomization

Does the study apply randomized assignment?

Ask questions below only for studies that apply regression discontinuity designs

Is the allocation of the programme based on a pre-determined continuity on a continuous variable and blinded to the beneficiaries or, if not blinded, individuals cannot reasonably affect the assignment variable in response to knowledge of the participation rule?

Ask questions below only for studies that apply matching

Are the characteristics of the treatment and comparison group similar? (based on statistical significance tests) after matching?

Ask questions below only for studies that apply instrumental variable estimation

Does the study describe clearly the instrumental variable(s)/identifier used and why it is exogenous?

Are the instruments jointly significant at the level of $F \geq 10$? If an F test is not reported, does the author report and assess whether the R-squared of the instrumenting equation is large enough for appropriate identification ($R\text{-sq} > 0.5$)?

Annex F: Quality Appraisal Tool

Exhibit F-1. Qualitative Review Protocol

Number	Question
SECTION A	
INTERVENTION, CONTEXT, AND KEY STAKEHOLDERS	
Question 1.	Is the object of the evaluation clearly described?
i	Clear and relevant description of the intervention, including: location(s), timelines, cost/budget, and implementation status.
ii	Clear and relevant description of intended rightsholders (beneficiaries) and duty bearers (state and non-state actors with responsibilities regarding the intervention) by type (i.e., institutions/organizations, communities, individuals), by geographic location(s) (i.e., urban, rural, particular neighbourhoods, town/cities, subregions) and in terms of numbers reached, with disaggregation by gender, age, disability (as appropriate to the purpose of the evaluation).
Question 2.	Is the context of the intervention clearly described?
i	Clear and relevant description of the context of the intervention (i.e., relevant policy, socio-economic, political, cultural, power/privilege, institutional, international factors) and how context relates to the implementation of the intervention.
ii	Linkages drawn to the SDGs and relevant targets and indicators for the area being evaluated.
iii	Clear and relevant description of the status and needs of the rightsholders/beneficiaries of the intervention.
Question 3.	Are key stakeholders, their relationships, and contributions clearly identified?
i	Identification of implementing agency(ies), development partners, right holders, and additional duty bearers and other stakeholders; and of linkages between them (e.g., stakeholder map) (if relevant).
ii	Identification of the specific contributions and roles of key stakeholders (financial or otherwise), including UN agencies.
SECTION B:	
EVALUATION PURPOSE, OBJECTIVES, AND SCOPE	
Question 4.	Is the purpose of the evaluation clearly described?
i	Purpose of evaluation is clearly defined, including why it was needed at that point in time, its intended use, and key intended users.
ii	Clear and relevant description of the scope of the evaluation: what will and will not be covered (thematically, chronologically, geographically with key terms defined), as well as, if applicable, the reasons for this scope (e.g., specifications by the Terms of Reference, lack of access to particular geographic areas for political or safety reasons at the time of the evaluation, lack of data/evidence on particular elements of the intervention).
Question 5.	Is the theory of change, results chain or logic model well articulated?
i	Clear description of the intervention's intended results, or of the parts of implementation that are applicable to, or are being assessed by, the evaluation.
ii	Relationship between implementation components, including pathways from input to activities to outputs, is presented in narrative and/or graphic form (e.g., logic model, theory of change, evaluation matrix).
iii	For theory-based evaluations, the theory of change or results framework is assessed.

Number	Question
SECTION C: EVALUATION DESIGN AND METHODOLOGY	
Question 6. Does the evaluation use questions and the relevant evaluation criteria that are explicitly justified as appropriate for the purpose of the evaluation?	
i	Evaluation questions and sub-questions are appropriate for meeting the objectives and purpose of the evaluation. The relevant criteria are specified and are aligned with the questions.
ii	In addition to the questions and sub-questions, the evaluation matrix includes indicators, benchmarks, assumptions, and/or other processes from which the analysis can be based and conclusions drawn.
Question 7. Does the report specify adequate methods for data collection, analysis, and sampling?	
i	Evaluation design and set of methods are relevant and adequately robust for the evaluation's purpose, objectives, and scope and are fully and clearly described.
ii	Qualitative and quantitative data sources are appropriate and are clearly described.
iii	Sampling strategy is provided - it should include a description of how diverse perspectives are captured (or, if not, provide reasons for this), with articulated consideration and/or inclusion of vulnerable/marginalized groups, equity, and intersectionality
iv	Clear and complete description of the methods of data analysis.
v	Clear and complete description of limitations and constraints faced by the evaluation, including gaps in the evidence that was generated and mitigation of bias and how these were addressed by the evaluators (as feasible).
Question 8. Are ethical issues and considerations described?	
i	Explicit and contextualized reference to the obligations of evaluators (independence, impartiality, credibility, conflicts of interest, accountability).
ii	Description of ethical safeguards for participants appropriate for the issues relevant to methodology and how they are applied (respect for dignity and diversity, right to self-determination, fair representation, compliance with codes for vulnerable groups, confidentiality, and avoidance of harm).
SECTION D: EVALUATION FINDINGS	
Question 9. Do the findings clearly address all evaluation objectives and scope?	
i	Findings marshal sufficient levels of evidence to systematically address all of the evaluation's questions, sub-questions and criteria.
ii	Explicit use of the intervention's results framework/ToC/logic model in the formulation of the findings.
Question 11. Are evaluation findings derived from the conscientious, explicit, and judicious use of the best available, objective, reliable, and valid data and by accurate quantitative and qualitative analysis of evidence.	
i	Evaluation uses credible forms of qualitative and quantitative data. It presents both output and outcome-level data as relevant to the evaluation framework. Triangulation is evident through the use of multiple data sources.
ii	Findings are clearly supported by, and respond to, the evidence presented, including both positive and negative. Findings are based on clear performance indicators, standards, benchmarks, or other means of comparison as relevant for each question.
iii	Factors (contextual, organizational, managerial, etc.) related to successful or unsuccessful implementation are clearly identified. For theory-based evaluations, findings analyse the logical chain of implementation processes expected to produce targeted results.

Number	Question
Question 12.	Does the evaluation assess and use the intervention's Results-Based Management elements?
i	Assessment of the adequacy of the intervention's monitoring system (including completeness and appropriateness of results/performance framework - including vertical and horizontal logic, M&E tools, and their usage) to support decision-making.
SECTION E: EVALUATION CONCLUSIONS & LESSONS LEARNED	
Question 13.	Do the conclusions clearly present an objective overall assessment of the intervention?
i	Conclusions are clearly formulated and reflect the purpose and objectives of the evaluation. They are sufficiently forward-looking (if a formative evaluation or if the implementation is expected to continue or have additional phase).
ii	Conclusions are derived appropriately from findings and present a picture of the strengths and limitations of the intervention that adds insight and analysis beyond the findings.
Question 14.	Are logical and informative lessons learned identified? [N/A if lessons are not presented and not requested in ToR]
i	Identified lessons stem logically from the findings, have wider applicability and relevance beyond the object of the evaluation.
ii	Lessons are clearly and concisely presented, yet have sufficient detail to be useful for intended audience.
SECTION F: RECOMMENDATIONS	
Question 15.	Are recommendations well grounded in the evaluation?
i	Recommendations align with the evaluation purpose, are clearly formulated and logically derived from the findings and/or conclusions.
ii	Recommendations are useful and actionable for primary intended users and uses (relevant to the intervention); guidance is given for implementation, as appropriate.
iii	Process for developing the recommendations is described, and includes the involvement of duty-bearers, as well as rights holders when feasible (or explanation given for why they were not involved).
Question 16.	Are recommendations clearly presented?
i	Clear identification of groups or duty-bearers responsible for action for each recommendation (or clearly clustered group of recommendations). Clear prioritization and/or classification of recommendations to support use.

Annex G: SDG-17 Indicators

Exhibit G-1. SDG-17 Indicators and Data Availability

Target/Indicator	Time span	Published by	Original source	Link to source	Category
Target 17.1: Mobilize resources to improve domestic revenue collection					
Indicator 17.1.1 is total government revenue as a proportion of GDP.	1972 – 2020	World Development Indicators – World Bank (2022.05.26)	Demographic and Health Surveys, Multiple Indicator Cluster Surveys, Household surveys, UN Population Division	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Finance
Indicator 17.1.2 is the proportion of domestic budget funded by domestic taxes.	1972 – 2020	World Development Indicators – World Bank (2022.05.26)	Demographic and Health Surveys, Multiple Indicator Cluster Surveys, Household surveys, UN Population Division	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Finance
Target 17.2: Implement all development assistance commitments					
Indicator 17.2.1 is net official development assistance, as a proportion of the OECD Development Assistance Committee donors' GNI.	2000 – 2017	UN Sustainable Development Goals – United Nations (2022-07-07)	Organisation for Economic Co-operation and Development	https://sdgs.un.org/goals	Finance
Target 17.3: Mobilize financial resources for developing countries					
Indicator 17.3.1 is foreign direct investment (FDI), official development assistance and South-South cooperation as a proportion of total domestic budget.	1970 – 2020	World Development Indicators – World Bank (2022.05.26)	Demographic and Health Surveys, Multiple Indicator Cluster Surveys, Household surveys, UN Population Division	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Finance
Indicator 17.3.2 is the volume of remittances (in US\$) as a proportion of total GDP.	1972 – 2018	World Bank based on the International Monetary Fund, World Bank and OECD		http://data.worldbank.org/data-catalog/world-development-indicators	Finance
Target 17.4: Assist developing countries in attaining debt sustainability					
Indicator 17.4.1 is debt service as a proportion of exports of goods and services.	1970 – 2020	UN Sustainable Development Goals – United Nations (2022-07-07)	World Bank	https://sdgs.un.org/goals	Finance
Target 17.5: Invest in least developed countries					
Indicator 17.5.1 is the number of countries that adopt and implement investment promotion regimes for least developed countries.	1959 – 2021	UN Sustainable Development Goals – United Nations (2022-07-07)	UN Conference on Trade and Development	https://sdgs.un.org/goals	Finance

Target/Indicator	Time span	Published by	Original source	Link to source	Category
Target 17.6: Knowledge sharing and cooperation for access to science, technology and innovation					
Indicator 17.6.1 is fixed Internet broadband subscriptions per 100 inhabitants.	1998 – 2020	World Development Indicators – World Bank (2022.05.26)	World Telecommunication / ICT Indicators Database – International Telecommunication Union	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Technology
Target 17.7: Promote sustainable technologies to developing countries					
Indicator 17.7.1 is the total amount of approved funding for developing countries to promote the development, transfer, dissemination, and diffusion of environmentally sound technologies.	2010 – 2020	United Nations Sustainable Development Goals – United Nations (2022-07-07)	United Nations Statistics Division	https://sdgs.un.org/goals	Technology
Target 17.8: Strengthen the science, technology and innovation capacity for least developed countries					
Indicator 17.8.1 is the proportion of individuals using the Internet.	1960 – 2020	World Development Indicators – World Bank (2022.05.26)	World Telecommunication / ICT Indicators Database – International Telecommunication Union	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Technology
Target 17.9: Enhanced SDG capacity in developing countries					
Indicator 17.9.1 is the dollar value of financial and technical assistance committed to developing countries.	1960 – 2019	World Development Indicators – World Bank (2022.05.26)	Demographic and Health Surveys, Multiple Indicator Cluster Surveys, Household surveys, UN Population Division	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Capacity-building
Target 17.10: Promote a universal trading system under the WTO					
Indicator 17.10.1 is the worldwide weighted tariff-average.	1988 – 2020	World Development Indicators – World Bank (2022.05.26)	The World Integrated Trade Solution platform	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Trade
Target 17.11: Increase the exports of developing countries					
Indicator 17.11.1 is developing countries' and least developed countries' share of global exports.	1960 – 2020	World Development Indicators – World Bank (2022.05.26)	National accounts data – World Bank / OECD	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Trade
Target 17.12: Remove trade barriers for least developed countries					
Indicator 17.12.1 is the average tariffs faced by developing countries, least developed countries and small island developing States.	1988 – 2020	World Development Indicators – World Bank (2022.05.26)	The World Integrated Trade Solution platform	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Trade

Target/Indicator	Time span	Published by	Original source	Link to source	Category
Target 17.13: Enhance global macroeconomic stability					
Indicator 17.13.1 is the Macroeconomic Dashboard. Annual inflation of consumer prices.	1960 – 2020	United Nations Sustainable Development Goals – United Nations (2022-07-07)	International Monetary Fund (IMF)	https://sdgs.un.org/goals	Finance and trade
Gross public sector debt, central government, as a proportion of GDP (%)	1995 – 2021	United Nations Sustainable Development Goals – United Nations (2022-07-07)	World Bank	https://sdgs.un.org/goals	Finance and trade
Merchandise exports as a share of GDP	1960 – 2020	Our World in Data	Our World in Data based on World Development Indicators – World Bank (2022.05.26)	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Finance and trade
Target 17.14: Enhance policy coherence for sustainable development					
Indicator 17.14.1 is the number of countries with mechanisms in place to enhance policy coherence of sustainable development.	2020 – 2020	United Nations Sustainable Development Goals – United Nations (2022-07-07)	UN Statistics Division	https://sdgs.un.org/goals	Systemic issues
Target 17.15: Respect national leadership to implement policies for the sustainable development goals					
Indicator 17.15.1 is the extent of use of country-owned results frameworks and planning tools by providers of development cooperation.	2016 – 2018	United Nations Sustainable Development Goals – United Nations (2022-07-07)	OECD and UN Development Programme	https://sdgs.un.org/goals	Systemic issues
Target 17.16: Enhance the global partnership for sustainable development					
Indicator 17.16.1 is the number of countries reporting progress in multistakeholder development effectiveness monitoring frameworks.	2016 – 2018	United Nations Sustainable Development Goals – United Nations (2022-07-07)	OECD and UN Development Programme	https://sdgs.un.org/goals	Systemic issues
Target 17.17: Encourage effective partnerships					
Indicator 17.17.1 is the amount of US dollars committed to (a) public-private partnerships and (b) civil society partnerships.	2000 – 2020	United Nations Sustainable Development Goals – United Nations (2022-07-07)	World Bank	https://sdgs.un.org/goals	Systemic issues

Target/Indicator	Time span	Published by	Original source	Link to source	Category
Target 17.18: Enhance availability of reliable data					
Indicator 17.18.1 is the proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics.	2004 – 2017	World Bank Data on Statistical Capacity		https://data.worldbank.org/data-catalog/data-on-statistical-capacity	Systemic issues
Indicator 17.18.2 is the number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics.	2019 – 2021	United Nations Sustainable Development Goals – United Nations (2022-07-07)	PARIS21 SDG Survey via United Nations Global SDG Database	https://sdgs.un.org/goals	Systemic issues
Indicator 17.18.3 is the number of countries with a national statistical plan that is fully funded and under implementation.	2019 – 2021	United Nations Sustainable Development Goals – United Nations (2022-07-07)	PARIS21 SDG Survey via United Nations Global SDG Database	https://sdgs.un.org/goals	Systemic issues
Target 17.19: Further develop measurements of progress					
Indicator 17.19.1 is the dollar value of all resources made available to strengthen statistical capacity in developing countries.	2016 – 2019	United Nations Sustainable Development Goals – United Nations (2022-07-07)	UN Statistics Division	https://sdgs.un.org/goals	Systemic issues
Population census	2004 – 2017	World Bank Data on Statistical Capacity	World Bank Microdata library. Original source: United Nations Statistical Division (UNSD), 2010 World Population and Housing Censuses Programme	https://data.worldbank.org/data-catalog/data-on-statistical-capacity	Systemic issues
Birth registration	2000 – 2021	World Development Indicators – World Bank (2022.05.26)	State of the World's Children – UNICEF	https://datacatalog.worldbank.org/search/dataset/0037712/World-Development-Indicators	Systemic issues
Death registration	2015 – 2019	A. Karliński, International Completeness of Death Registration 2015–2019 (2021)		https://github.com/akarliinsky/death-registration	Systemic issues

Annex H: Details on the Methodology

Impact evaluation screening methods

230. AIR started with double screening articles after a pilot followed by a group discussion. In this way, each of the reviewers became intimately familiar with the eligibility criteria. Reviewers who reached an interrater reliability of 0.8 or higher continued with single screening of abstracts and titles. After screening 3,830 titles and abstracts, AIR conducted priority screening based on a machine learning algorithm in EPPI reviewer (Thomas et al., 2022). AIR then prioritized the screening of titles and abstracts with a higher likelihood of inclusion according to the machine learning model. AIR stopped screening after not selecting 200 studies for full text screening before screening the full text of studies that passed the screening of titles and abstracts to determine eligibility.

Risk of bias assessment

231. The risk of bias assessment included an assessment of selection-bias and performance bias for each of the studies based on a tool suitable for randomized controlled trials and quasi-experimental studies with a development economics focus that AIR adapted based on Hombrados & Waddington (2012) and previously used in a number of other recent systematic reviews published by the Campbell Collaboration (Brody et al., 2017; Chinen et al., 2016; Stone et al., 2020; Nakamura et al., forthcoming). AIR did slightly simplify the tool because of the ambitious timeline to achieve two important policy goals (presenting preliminary results during the High-level Political Forum on Sustainable Development and presenting results during the SDG summit). Specifically, we did not examine risk of outcome and analysis reporting bias for individual studies.³¹

Performance and process evaluation analysis methods

232. To analyze the data from performance and process evaluations, AIR extracted data from the evaluations. AIR imported all evaluations that met the inclusion criteria into NVivo, a qualitative data analysis software package. To extract data from the evaluations, AIR focused primarily on the findings section (first-order data), but also included applicable information from author's conclusions and recommendations (second-order data). Although AIR focused on these sections, the full-text documents enabled reviewers to reference the context of the full study as AIR coded the indicators and allowed for identification of the characteristics that may have influenced the implementation of an initiative.

233. AIR conducted a thematic analysis of the extracted data in NVivo to synthesize evidence from performance and process evaluations. Using a deductive approach, the study team developed several *a priori* themes informed by the conceptual framework, OECD-DAC criteria, and similar syntheses of performance and process evaluations (Johansson et al., 2022). A complementary inductive approach allowed the study team to create new codes that represented thematic patterns and to understand the barriers and facilitators to SDG-17 initiatives. AIR focused on reporting findings on evaluations of approaches to systemic issues, capacity-building, and partnerships among others because of the absence of evidence on these topics in the impact evaluations. AIR also contributed qualitative evidence to lessons when the findings were particularly relevant for ongoing discussions about accelerating SDG-17 objectives.³²

³¹ Annex E presents the risk of bias assessment.

³² After finalizing the synthesis, GRADE-CERQual or another approach will be used to assess the strength of each finding from the performance and process evaluations.

Text Mining Analysis Tools

234. Rules-based classification model: AIR identified the number of keywords associated with SDG-17 in the VNRs using a rules-based classification model. To achieve this goal, AIR started by building a dictionary of keywords and phrases based on the search strategy. AIR then tagged SDG-17 text in VNRs using the dictionary to assess how frequently the VNRs spoke about trade, finance, technology, systemic issues, and capacity-building.

235. Sentiment analysis: To understand each country's attitudes towards the different SDG-17 topics, we conducted a sentiment analysis of the VNR reports using three different Python packages (Vader³³, Bert³⁴, and TextBlob). The Vader compound metric, Bert's Transformer Architecture, and TextBlob's polarity score each measure negative or positive sentiment on a numerical scale ranging from -1 to +1.

236. Qualitative analysis: Finally, we conducted a qualitative text analysis of the VNR reports to examine attitudes towards SDG-17. This qualitative analysis helped to examine the validity of the machine learning models and explore additional themes related to SDG-17.

33 Vader refers to Valence Aware Dictionary and sEntiment Reasoner.

34 Bert refers to Bidirectional Encoder Representations from Transformers.

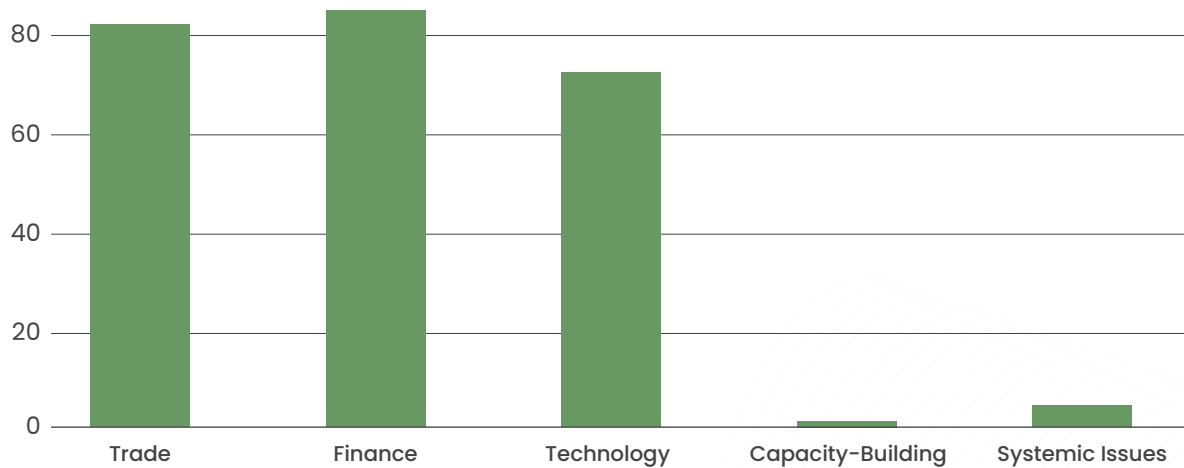
Annex I: Details on the Characteristics of Included Evaluations

Characteristics of Included Impact Evaluations

237. A large majority of the included impact evaluations are quasi-experimental studies. Of the 165 quasi-experimental evaluations, most evaluations use difference-in-difference analysis (91%) and over a third use propensity score matching (38%) whereas few utilize instrumental variables (4%) or regression discontinuity designs (1%). Most RCTs focus on finance (72%), followed by technology (17%), trade (6%), and systemic issues (6%). None of the included RCTs focus on capacity-building.

Exhibit I-1 summarizes the composition of the included impact evaluations.

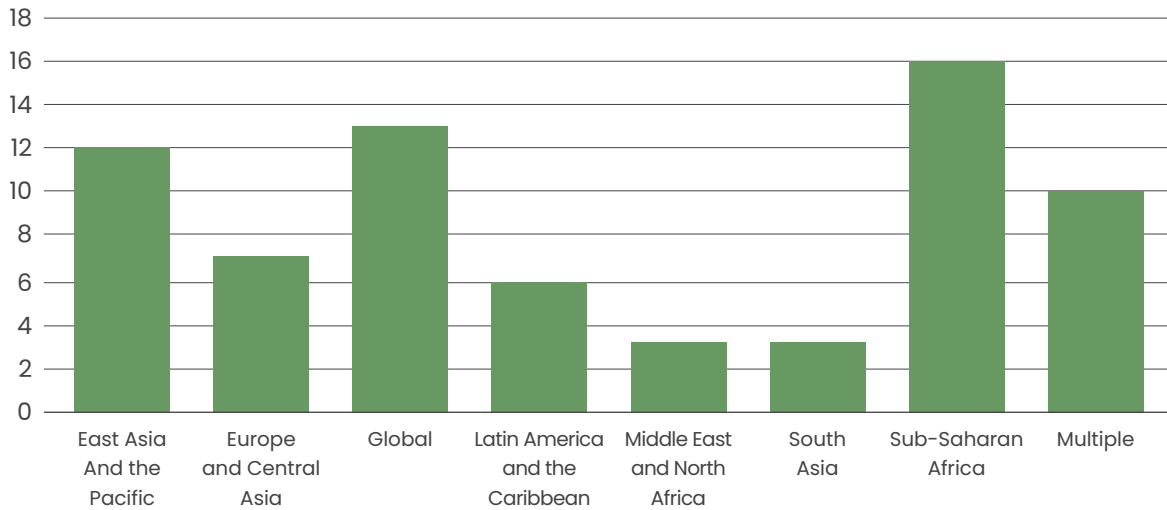
Exhibit I-1. Number of Included Impact Evaluations by SDG-17 Component



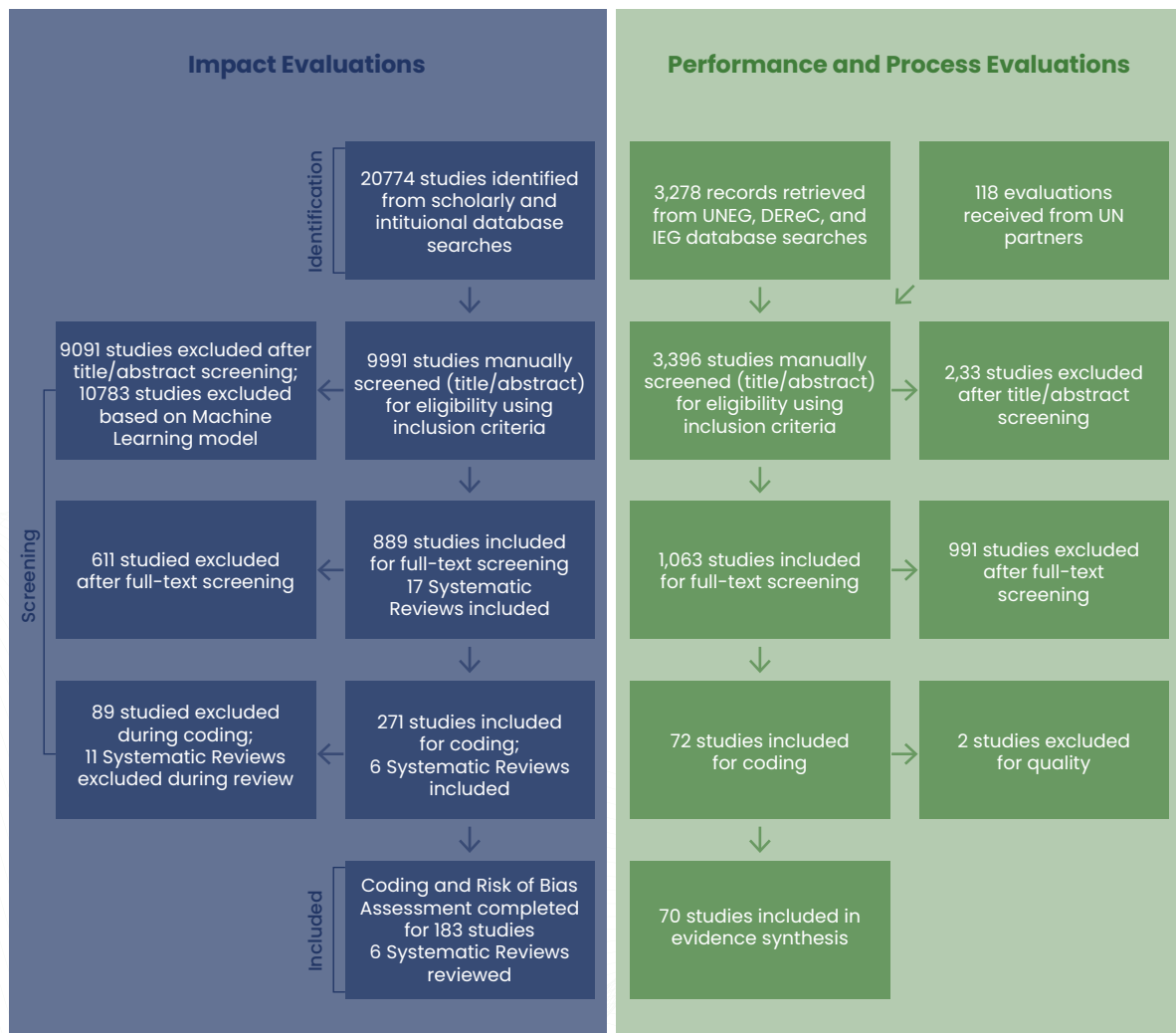
Note: The numbers in this figure include studies classified under more than one SDG-17 component.

Characteristics of Included Performance and Process Evaluations

238. We categorized the studies by the SDG 17-topic areas of focus (i.e., finance, technology, trade, systemic issues³⁵, and capacity-building). Many initiatives (45) have multiple relevant topic areas, in which case we determined which topic is the primary topic that initiative aimed to address, and which topic is secondary. Of the evaluations, most focus on systemic issues (20 evaluations), followed by trade (16 evaluations), finance (13 evaluations), technology (13 evaluations) and capacity-building (8 evaluations). Despite there being fewer evaluations that focus primarily on capacity-building, 27 initiatives have capacity-building as a secondary topic. Exhibit I-2 presents the topic areas of the included performance and process evaluations.

Exhibit I-2. Regional distribution of performance and process evaluations

Source: Author's calculations

Exhibit I-3. Prisma diagram of included impact, performance, and process evaluations

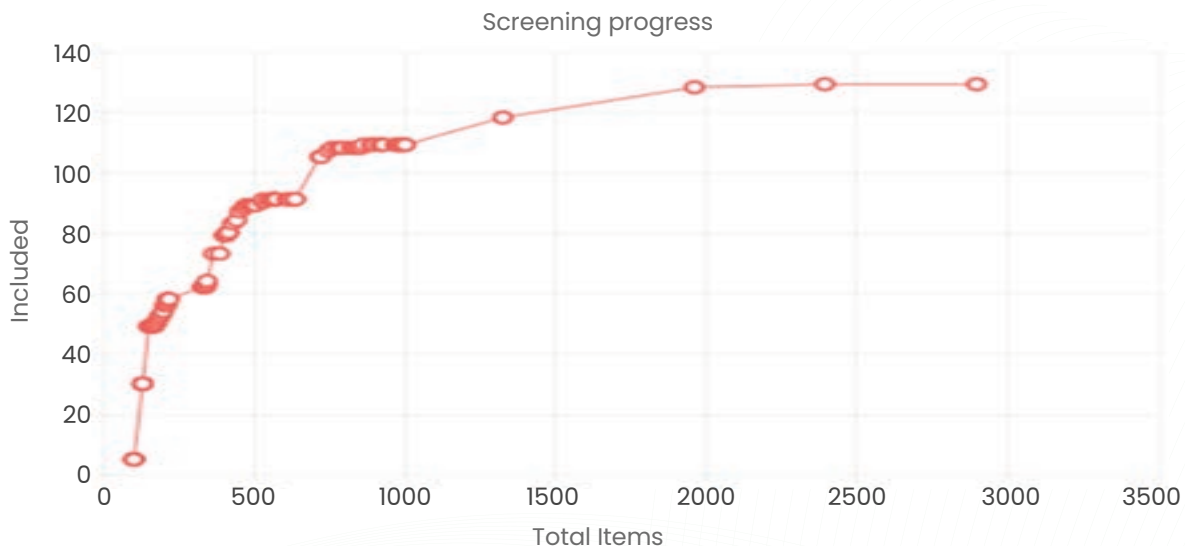
Annex J: Machine Learning Methods

239. Using supervised machine learning methods through EPPI Reviewer, AIR partnered with staff from EPPI to train a classification model based on the existing screening data to separate unscreened studies into two classes: studies to include and studies to exclude.³⁶ In doing so, the EPPI Reviewer classifier sorted unscreened studies by the probability of their inclusion in the review, according to existing screening data (i.e., the set of studies³⁷ that already underwent title and abstract screening and were coded with include or exclude codes). According to their respective probability of inclusion, EPPI Reviewer banded studies into probability deciles, and based on those deciles, we prioritized screening studies with the highest probability of inclusion. Thereafter, we coded remaining studies without screening according to their likelihood of inclusion.

240. To build this classifier, EPPI Reviewer uses several underlying machine learning algorithms to detect patterns in studies' references as well as in their titles and abstracts. This pattern detection transcends mere searches for particular words and phrases by examining trigrams, context, sentiment, and other features specific to natural language processing. In technical terms, the classifier is a relatively standard logistic regression (SGD) using tf-idf from a trigram bag of words representing the text, which is derived from references' titles and abstracts, and aims to capture the relative novelty of a term or phrase in a given document compared with everything else, and also how frequently it appears.

241. We trained the classification model after the screening progress plateaued. Exhibit F-1 illustrates the diminishing returns to the title and abstract screening, with the rate of included items (i.e., studies) declining as the number of screened studies increases. In other words, we found many studies that met the eligibility criteria in the first stages of title and abstract screening; however, over time, we found fewer and fewer studies that met the eligibility criteria.

Exhibit J-1. Title and Abstract Screening Progress Over Time: Included versus Total Studies Screened



³⁶ Through the "build model" functionality, we uploaded the training data to the EPPI Reviewer's machine learning server, which is where the classification model was trained.

³⁷ The underlying training data consisted of 2,800 studies that had undergone title and abstract screening and that reviewers coded with include or exclude codes.

Annex K: Evidence Gap Maps

[How partnerships work to accelerate progress on the Partnership Pillar of the SDGs: Evidence Gap Map](#) (70 Performance and process evaluations).

[What works to accelerate progress on the Partnership Pillar of the Sustainable Development Goals: Evidence and Gap Map](#) (183 Impact evaluations).



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