The Global SDG Synthesis Coalition

AIR
Advancing Evidence.
Improving Lives.
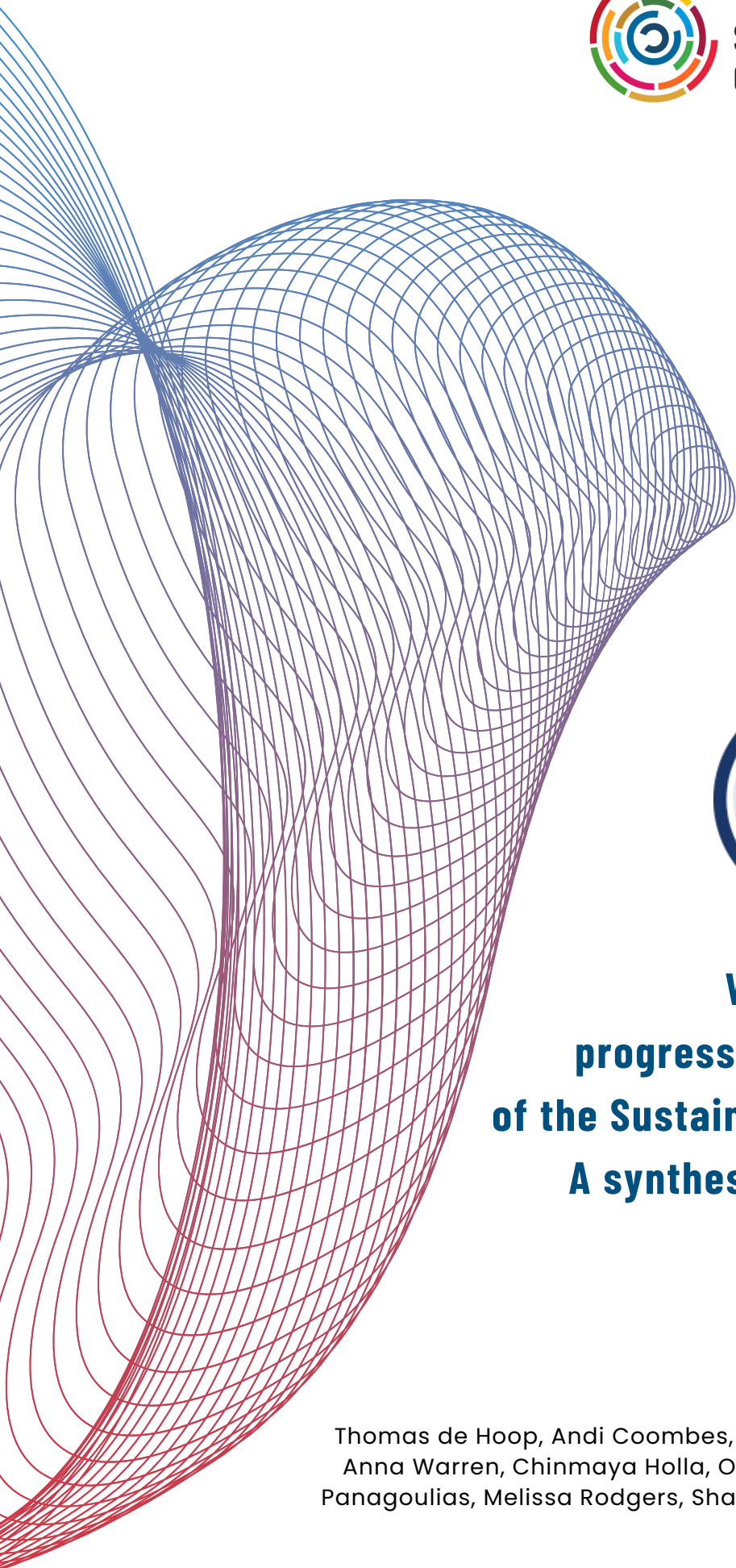
17 PARTNERSHIPS FOR THE GOALS

What works to accelerate progress on the Partnership Pillar of the Sustainable Development Goals: A synthesis of evaluative evidence

FINAL REPORT

Thomas de Hoop, Andi Coombes, Averi Chakrabarti, Marlous de Milliano, Anna Warren, Chinmaya Holla, Ozen Guven, Beth Anne Card, Philomena Panagoulias, Melissa Rodgers, Shalu Jain, Adria Molotsky, Eve Namisango

SEPTEMBER, 2023

WHAT WORKS TO ACCELERATE PROGRESS ON THE PARTNERSHIP PILLAR OF THE SUSTAINABLE DEVELOPMENT GOALS: A SYNTHESIS OF EVALUATIVE EVIDENCE

ACKNOWLEDGEMENTS

The Global SDG Synthesis Coalition would like to thank all those who have contributed to this synthesis.

SDG SYNTHESIS TEAM

The Global SDG Synthesis Coalition could not have conducted this synthesis without the support of the following:

STAKEHOLDERS AND PARTNERS

Contents

Acronyms

AIR	American Institutes for Research
The Coalition	The Global SDG Synthesis Coalition
EU	European Union
GDP	Gross domestic product
GNI	Gross National Income
HIC	High-income country
LIC	Low-income country
LMIC	Low and middle-income country
MIC	Middle-income country
ODA	Official development assistance
RCT	Randomized control trial
SDG	Sustainable Development Goal
SME	Small to medium enterprise
SSC	South-South cooperation
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
US	United States
VAT	Value-added tax
VNR	Voluntary National Review
WFP	World Food Programme
WTO	World Trade Organization

1. Executive summary

Measuring progress toward Sustainable Development Goal (SDG) indicators, and assessing which programmes, policies and initiatives are most successful in achieving that progress, can contribute to the development of evidence-based and practical lessons for accelerating progress on the SDGs. To generate these lessons, the Global SDG Synthesis Coalition ("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 toward SDG-17-related outcomes?

To address these questions, AIR conducted the first evidence synthesis to provide a comprehensive overview on how to accelerate SDG-17 objectives, using evidence from 183 impact evaluations and 70 performance and process evaluations. 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 issues[1] and capacity-building (to address the third research question); and (c) an evidence synthesis of process and performance evaluations

---

[1] Policies related to systemic issues may include multi-stakeholder partnerships that have discrete goals related to other SDGs, while other policies related to systemic issues may support 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 protocol (de Hoop et al., 2023).

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 (to address the fourth research question). The protocol describes the methods in more detail ([de Hoop et al., 2023](#)).

The evidence synthesis generated 17 lessons which are detailed in this report and summarized below. The lessons, which focus on initiatives and contexts for which more rigorous evidence was available, 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 as after regional trade agreements in MICs.

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 limited effects on export values of preferential trade agreements between LICs and HICs. Helping low-income and middle-income countries understand and meet regulatory standards could help

these countries to increase their exports to high- and middle-income countries, though the effects of such support remain more uncertain 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, (Buetnner & Madzharova, 2018) despite potential positive effects on economic growth.

Lesson 5: Tax reforms, community-based tax collection and value-added (VAT) taxes can compensate for reductions in tariffs by increasing tax revenue, but in the short term the effectiveness of these policy instruments depends on the countries' income status. 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 magnitude of the effects of different tax collection methods depends strongly on contextual and implementation characteristics. While new donors have stepped in, limited ODA, combined with the global debt crisis, show 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, it has often focused on domestic spending on refugees and aid for Ukraine (General Assembly Economic and Social Council, 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 innovations will not generate sufficient impacts to make a large difference in contexts such as China, which is currently the largest emitter of CO_2 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 achieving positive impacts of the roll-out of broadband internet on internet access, green innovation, technology diffusion and digital financial inclusion in large Asian countries. However, major evidence-gaps remain on its effectiveness outside of large Asian countries.

Lessons on systemic issues and capacity-building

Lesson 9: Countries' incentives for collaborating 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 the partnership increases the likelihood of ongoing engagement.

Lesson 10: South-South and trilateral cooperation show promise to accelerate progress toward SDG-17 results, including capacity development, by prioritizing trust and mutual ownership. Findings from process and performance evaluations show 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 principles of horizontal cooperation on 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 initiative's efficiency and effectiveness.

Lesson 12: Prioritizing problem analyses and co-creating theories of change can help partners with different incentives achieve results on SDG-17 indicators. Many initiatives lacked a thorough problem analysis, and theories of change[2] 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.

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 do not usually present 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

---

[2] 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).

use statistical data, they do not often use evaluative evidence to report on progress in 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 kind of programming which can help accelerate SDG-17 outcomes. Currently, VNR reports primarily focus on descriptions of SDG progress without linking this progress to specific initiatives. When VNR reports include program descriptions, these descriptions tend to remain general, limiting the ability of implementers to understand what 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 progress reported in VNR reports. More inclusion of statistical data and evaluative evidence in VNR reports can potentially 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 the 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. Total 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 ODA may not continue to increase 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 (General Assembly Economic and Social Council, 2023).

Despite these moderately positive developments, LICs, especially in sub-Saharan Africa face a public debt crisis. The total external debt of LMICs 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 (General Assembly Economic and Social Council, 2023), demonstrating an urgent need to increase government revenue in LICs.

With respect to trade, the least developed countries (LDCs) did also not make sufficient progress. The share of exports of the LDCs was 1.05 percent in 2021, which is far from the objective of doubling their share of exports from 1.03 percent in 2011. In addition, the worldwide tariff average of two percent in 2020 did not change since 2017 (General Assembly Economic and Social Council, 2022).

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 a total funding amount 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 (General Assembly Economic and Social Council, 2022).

Despite these challenges, some countries have made more progress on SDG-17 than others. The answers to research questions 2-4 help to nuance 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 analyses of data from the SDG tracker,[3] 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;

---

[3] https://sdg-tracker.org/ is a comprehensive dataset on all the SDG-17 targets.

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.[4]

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.[5] The case studies suggest that democratic reforms and trade liberalization were among the most important reasons why countries made considerable progress on SDG-17 indicators. 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 evaluations, 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 value-added taxes can help generate federal revenue in MICs, such initiatives require effective coordination,

---

[4] The methodology section presents more details on how we determined performance on the SDG-17 indicators. Exhibit C-1 in Annex C presents the ranking based on a weighted index of countries' performance on the SDG-17 indicators.

[5] A positive deviance assessment is a systematic process used to identify and understand positive deviant behaviors 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. We also considered the income status, the conflict situation, and whether a country was a historical donor in the selection of case study countries. The report provides more details in the methodology section.

communication, and governance for success and in LICs they likely only result in increased government revenue in the long term.

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 the effects of regional trade agreements and their effectiveness likely reduces in the long term. Cluster development policies, that cluster businesses in a geographic zone to facilitate coordination for innovation, also have 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, significant 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? Partnerships can increase their effectiveness in achieving policy outcomes when partners identify the priorities of different parties and outline the specific pathways that will lead to meeting 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 the specific outcomes of capacity-building activities are more effective at catalyzing 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. Currently, 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 toward 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 can possibly 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? Value-added taxes have higher impacts on tax-revenue in middle-income countries because LICs have less tax collection capacity and a smaller formal sector. Community-based tax data collection can help with maximizing 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 likely do not 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 toward 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 the composition of the partners (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 SDG-17 initiatives can likely 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 will likely require a learning agenda that includes impact, performance and process evaluations to address these evidence gaps, 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 (reaching 0.36 percent of gross national income in 2022) by historical donors. Recent increases in ODA were primarily driven by domestic spending on refugees and aid for Ukraine (General Assembly Economic and Social Council, 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.

2. 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 stimulate 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 toward the SDGs and change course where SDG indicators are lagging in progress. In fact, the SDG 2022 report (United Nations, 2022, pp. 3) 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.

The limited progress toward the SDGs shows the importance of developing evidence-based and practical recommendations for accelerating progress. The SDGs were accompanied by a monitoring and evaluation framework with 248 indicators across each of the SDGs to measure progress. Measuring progress toward these indicators, and assessing which programmes, policies and interventions are most successful in achieving progress, 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 ("the Coalition") commissioned American Institutes for Research (AIR) to design and implement an evidence synthesis to understand 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 countries;[6] (b) an evidence synthesis of

---

[6] 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

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, or the private sector. 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 the SDG-17 objectives.

AIR organized the synthesis to primarily focus 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. Further, AIR included evaluations that focus on the role of capacity-building and systemic issues in achieving progress toward trade, finance, and technology objectives under SDG-17. Finally, AIR generated lessons on the performance of activities related to 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).

This report presents 17 lessons based on the findings from the VNR data analysis, deviance assessment and evidence syntheses of impact and performance and process evaluations. The report starts with a description of the research questions and methods, followed by a description of lessons on trade, finance, technology, systemic issues, and capacity-building and cross-cutting issues. The report 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).

---

important enough to consistently touch upon in their reports as well as what the distribution of "sentiment" is in these reports (Silge and Robinson, 2017). AIR provides more details about the text analysis in the methodological protocol (de Hoop et al., 2023) and the rest of the report.

3. Summary of research questions and methodology

3.1 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 toward 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 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.

3.2 Summary of methods

To address the synthesis questions, AIR combined a systematic database search,[7] with a request for papers from management group members with critical appraisal of identified evaluations and a synthesis of impact, performance and process evaluations that meet the inclusion criteria. AIR triangulated these findings with case studies of countries that have made the most progress on SDG-17, using a positive

---

[7] AIR conducted the final database searches in April and May 2023. Papers added to databases 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.

deviance assessment with case studies of seven countries and a text analysis of VNR data.

3.2.1 Summary of inclusion criteria

AIR selected trade, finance, and technology as the three focus areas of the review, based on a comprehensive scoping of the evidence. These are the areas on which there was a wealth of evidence from different types of studies directly related to SDG-17 and less to other SDGs. The SDG-17 goals and indicators for capacity-building and systemic issues are often applicable across the different SDGs, meaning that the studies returned for these areas often covered topics that are better suited under other SDGs (e.g., capacity-building efforts in health or education). AIR did not include these or other studies with a focus on other SDG indicators (i.e., we did not include technology-aided agriculture, education or health programmes, microfinance, or agricultural extension programmes).

AIR included studies or evaluations related to capacity-building and systemic issues that 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 that 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 focused on other SDG indicators were not included. AIR also excluded reviews of partnership portfolios that looked collectively at outcomes across many SDGs. 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).

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 Partnerships Pillar (i.e., SDG-17), components 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 (LMICs) and potentially for evaluations from the DeREC database
Method	**For evaluations on the impact of SDG-17 initiatives on SDG-17 outcomes**: include impact evaluations (randomised control trial or quasi-experimental study with a comparison group), regression analyses with a comparison group and panel data, cross-country regressions that use panel data

Topic	Inclusion criteria
	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

We developed the inclusion criteria 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 (de Hoop et al., 2023). 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

Inputs Programmes and Policies	**Finance** **Technology** **Trade**
	Discrete Capacity Building (e.g., agricultural extension for farmers, training for teachers and community health workers) **Discrete Systemic Issues** (e.g., public-private partnerships to improve education and health, partnerships with UN organizations to facilitate humanitarian assistance)

Moderators: Partnerships to Improve Capacity Building and Systemic Issues, and other contextual, household-level or individual-level factors

General Capacity Building and Systemic Issue Policies

Policy coherence

Multi-stakeholder partnerships

South-South cooperation

Statistical capacity building

Governments

Private Sector

Civil Society

Contextual and implementation considerations (e.g., country-level income status, social status of programme participants)

Assumptions and Risks

Resolve collective action problems

Resolve coordination challenges

Improve adaptive capacity

Mediators: Capacity Building and Systemic Issue Outcomes (e.g., partnerships to increase commitment of ODA, development of national plans, technology transfers)

Outcomes

Finance (e.g., government revenue, foreign direct investment)

Technology (e.g., internet access, renewable energy)

Trade (e.g., trade agreements, export revenue)

Other SDG Outcomes

Impact

The achievement of outcomes facilitates the success of other SDGs

3.2.2 Summary of impact evaluation synthesis methods

Using the search strategy from the protocol, AIR identified impact evaluations in the web of science and 3ie database of impact evaluations. The study team then uploaded these studies in EPPI reviewer, before screening the titles and abstracts for eligibility according to the protocol. Annex H presents more details on the screening of the studies.

Next, AIR coded and conducted risk of bias assessments for the included impact evaluations, 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.[8] AIR coded the studies for methodology (RCT vs quasi-experimental study), the SDG-17 category (trade, finance, technology, systemic issues and capacity-building), inclusion of a capacity-building, systemic issue or partnership focus, the region and the country, the initiative type and the outcome measure. AIR also coded studies 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).[9] Annex H presents a description of the risk of bias assessment.

AIR analysed descriptive statistics of the included studies by examining the number of studies with specific characteristics and linking those statistics to the quantitative narrative synthesis. AIR primarily focused on analysing initiatives with enough 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. AIR also included lessons when the findings were considered particularly relevant for ongoing discussions about accelerating SDG-17 objectives, even if the number of studies was relatively small. In all cases the report presents a narrative discussion of evidence-gaps where evidence is insufficient.

Where possible, AIR triangulated findings 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 on their effectiveness was available from performance and process evaluations and the case studies.

AIR presents more details on the screening, coding, and risk of bias assessment of the impact evaluations in the protocol (de Hoop et al., 2023).

---

[8] AIR presents the meta-analysis methods in the protocol. AIR did not conduct additional meta-analyses because of the large variation in the programme types and outcomes. While it may be feasible to conduct meta-analyses for some additional initiatives, the large variability in the programme types will limit the lessons learned from such meta-analyses.

[9] "Leave No One Behind" is a universal value of the United Nations Sustainable Development Cooperation (UNSDG, n.d.). It is important to give careful focus to populations who are likely to be left behind due to discrimination, poverty, and other inequalities. Among others, these groups may include women, people living in poverty, youth, people with disabilities, and indigenous people groups, whom we discuss in this synthesis.

3.2.3 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, DAC Evaluation Resource Centre (DEReC) and the World Bank Independent Evaluation Group (IEG). 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 evaluations for which the study team could not determine relevance based on titles and abstracts alone. In line with the protocol, AIR removed any evaluations published before 2018 and assessed each of the remaining evaluations against the inclusion criteria.

AIR assessed the methodological quality of all performance and process evaluations that met the inclusion criteria using a qualitative review protocol that includes indicators adapted from quality appraisals for evaluations across United Nations agencies, including GEROS from the United Nations Children's Fund (UNICEF, 2020), the evaluation quality assessment of the United Nations Development Programme (UNDP IEO, 2021), the evaluation criteria and ratings of the United Nations Environment Programme (UNEP, n.d.), the quality assurance and assessment tools of the United Nations Population Fund (UNFPA, 2020) and the evaluation quality assurance system of the World Food Programme (WFP, 2020).[10] Based on guidance from Cochrane (Noyes et al., 2019),[11] 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 AIR presents more details on the screening, coding and quality appraisal of the performance and process evaluations in the protocol (de Hoop et al., 2023).

3.2.4 Systematic reviews

AIR also included systematic reviews with a focus on how SDG-17 programmes could influence other SDG objectives. AIR included these systematic reviews to examine how SDG-17 objectives could enable the achievement of other SDG objectives and to

---

[10] Annex F presents the quality appraisal tool.
[11] https://training.cochrane.org/handbook/current/chapter-21#section-21-8

assess potential trade-offs between the different SDG goals. The report discusses these systematic reviews in the section addressing the research questions.

3.2.5 Case studies

AIR conducted a positive deviance assessment 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 SDG-17 indicators.

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

PHASE 1: CASE STUDY SELECTION

Compile data on SDG-17 targets and assessment of quality

Analyse progress for each country and target over time

Select 4 case studies based on 1) most progress 2) country characteristics (e.g., geography; income status)

PHASE 2: CASE STUDY ANALYSES

Data analysis including 1) assessing time series, and 2) indicators lagging behind, 3) identifying data gaps

VNR analysis on factors explaining progress (e.g., policy changes; links with other indicators)

Case study country selection

AIR analysed data from the SDG tracker, to identify countries that made considerable progress towards achieving targets within SDG-17.[12] This analysis enabled AIR to rank

---

[12] https://sdg-tracker.org/, a comprehensive set of data on all the SDG-17 targets.

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 percentage of GDP, proportion of individuals using the internet)[13] from the SDG tracker over the last five years the data were available (from 2017 to 2022). AIR retrieved multiple years of SDG tracker data for each country.[14]

To identify positive deviance cases in SDG-17 performance,[15] AIR ranked the countries based on a weighted index of their performance on the SDG-17 indicators. To rank the countries, each country that ranked first on one of the indicators received 5 points, while the country ranked second received 4 points and so on. Exhibit C-1 in Annex C presents the top six of the 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 a lot lower in the ranking 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).

---

[13] For this analysis, AIR selected all indicators that (1) had data points over multiple years, and (2) 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, the team included 16 of the 28 SDG-17 (sub-)indicators. Annex F presents the 28 SDG-17 (sub-)indicators.

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

[15] A positive deviance assessment is a systematic process used to identify and understand positive deviant behaviors 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).

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 review and/or additional secondary data analysis.

3.2.6 VNR analysis

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

3.2.7 Limitations

The evidence synthesis generated important lessons about how to accelerate progress toward SDG-17, but 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 the limitations and how AIR addressed them.

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 on capacity-building and systemic issues.	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 by including 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 every performance or process evaluation, although best practice is to have two researchers independently review every study.	AIR used appropriate methods for rapid syntheses by coming up with a common understanding of the risk of bias assessment and conducting interrater reliability on the quality appraisals for two papers of the performance and process evaluations to ensure a common understanding of the ratings and discussing any questions for each study among researchers.
4	The large body of descriptive qualitative evidence in performance and process evaluations and the variation in initiatives' approaches and outcomes limited AIR's ability 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.	We included studies from the published and grey literature as well as evaluations conducted and commissioned by United Nations and bilateral organizations to account for publication bias

4. Characteristics of included studies

This section discusses the characteristics of the included impact, performance and process evaluations. The evidence mapping illustrates where evidence is available and strong and where it is limited. AIR will produce an evidence-gap map after the SDG summit.

4.1 Characteristics of included impact evaluations

Of the 20,774 studies found through the search, AIR identified 183 impact evaluations that were eligible for inclusion. AIR first excluded 9,091 studies after abstract screening, followed by the exclusion of 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 183 impact evaluations. Exhibit I-3 in Annex I presents the Prisma diagram highlighting how we got to the included impact evaluations.

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

Most of the impact evaluations included focus on initiatives and outcomes related to trade, finance or technology. **Very few focus on capacity-building or systemic issues.** Of the 183 included impact evaluations, 82 studies examine the implications of trade, 73 explore technology and 85 are dedicated to finance-related themes. By comparison, only one study focuses on capacity-building and five on systemic issues.

A substantial number (n = 69) of the included studies examine the intersection of two or more of the 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 population-level macroeconomic and/or population-level effects without distinguishing between subgroups and with very little emphasis on the targeting of programmes. Of the included impact evaluations, 12 studies include 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.[16]

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, value-added [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.

Exhibit 5. Number of studies per intervention category

Programme type	
Finance	
Environmental taxes	4
Informal business registration	1
Value added taxes	8
Tax messaging	13
Tax reforms	22
Technology	
Green finance	9
Mobile money	6
Broadband infrastructure	13
Other technology promotion	27

---

[16] This finding does not suggest that the programmes did not focus on these groups. However, the evaluations did not focus specific attention or report on these subgroups, limiting AIR ability to generate lessons on equity.

Trade	
Trade liberalization	33
Trade sanctions	4
Infrastructure for trade	12
Anti-dumping measures	8
Other trade restrictions	5
FDI promotion	9
Export promotion	15
Other interventions	
Other interventions	9

Exhibit 6. Number of studies per outcome category

Outcome category	
Finance	
Foreign direct investment	19
Tax revenue	31
Technology	
Green patents	18
Technology and innovation	28
Digital finance	5
Trade	
Export	41

Import	9
Other trade outcomes	3
Other interventions	
Other outcomes	15

In general, most evaluated SDG-17 initiatives are macro-level initiatives, which may create challenges when aiming to examine impacts on subgroups such as women, youth and low-income households. While 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, it is likely more challenging for impact evaluations of SDG-17 initiatives to conduct such analyses than for impact evaluations of education, health and social protection initiatives.

Most of the included impact evaluations concentrate on East Asia and the Pacific, with comparatively few evaluations in other regions. Of the 183 impact evaluations included, 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).[17]

A majority of the included experimental and quasi-experimental studies 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 China's experience with "experimental gradualism" (Heilman, 2008; Rodrik, 2008a). China introduced many experimental regulations, experimental points and experimental zones that enabled the country to learn from its experience. This experience likely 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 larger number of quasi-experimental studies

---

[17] 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.

in China is driven by the growth in the number of Chinese researchers (Marginson, 2022).

The included impact evaluations primarily have a low to medium risk of performance bias and a medium risk of selection bias. More specifically, of the 183 included impact evaluations, 45 percent, 45 percent and 10 percent have a low, medium, or high risk of performance bias, respectively. By contrast, over half of studies have a medium risk of selection bias (56 percent), followed by high risk (25 percent) and low risk (19 percent) (Exhibit 7).[18]

Exhibit 7. Risk of bias assessment results
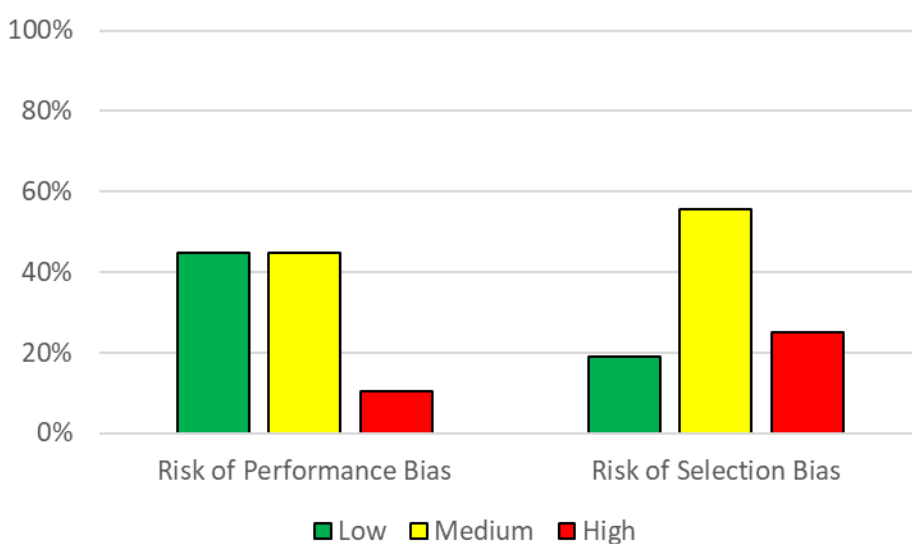
4.2 Characteristics of included performance and process evaluations

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 AIR excluded two

---

[18] 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 randomized controlled trials 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 as low risk of selection-bias. Randomized controlled trials and credible quasi-experimental studies with smaller sample sizes or threats to the identification strategy were rated as medium risk of selection-bias. Quasi-experimental studies without a credible identification strategy were rated as high risk of selection-bias. 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 of performance bias, and studies with clear contamination or spillover challenges as high risk of performance bias. While we do not exclude studies with a high risk of bias, we discount these studies in the interpretation of the results.

evaluations for which more than eight of 17 quality criteria were rated as "low" or "not mentioned." Exhibit I-3 in Annex I presents the Prisma diagram highlighting how we got to the included performance and process evaluations.

Of the evaluations, most focus on systemic issues (n=20), followed by trade (n=16), finance (n=13), technology (n=13) and capacity-building (n=8). Despite there being fewer evaluations that focus primarily on capacity-building, 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,[19] with no countries having notably more evaluations than others and 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). Yet, projects and evaluations rarely addressed 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.

---

[19] Single country evaluations include partnership initiatives in which the outcomes focus on one country.

Exhibit 8. Regional distribution of performance and process evaluations
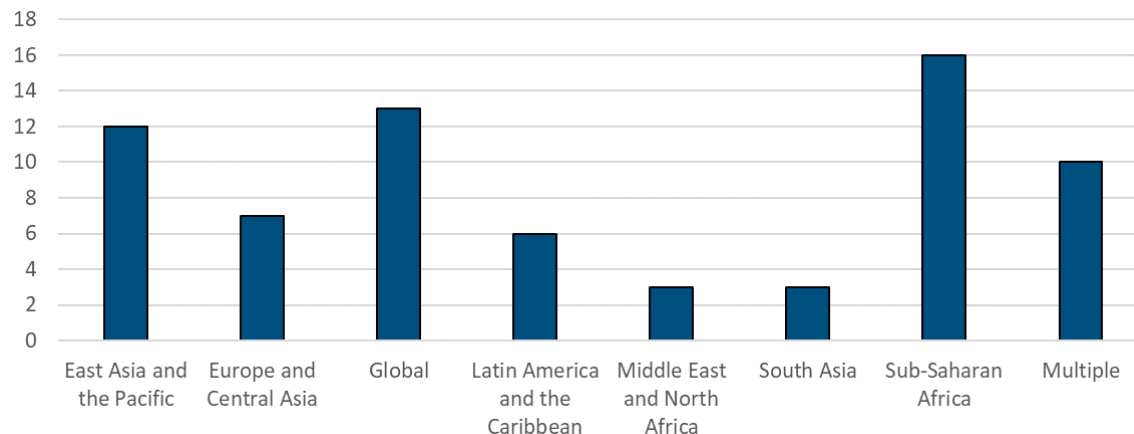
Source: author's calculations

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

Primary Topic Area	Examples of Included Initiatives	Number of Included Evaluations	Secondary Topic Area	Number of Included Evaluations
Technology	• Digital transformation • Energy technology • Internet access • Internet use • Mobile money • Solar power • Technology diffusion	13	Capacity-building	5
			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 • Multistakeholder 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

5. Results

The report showcases 17 key lessons that have emerged from the evidence synthesis, accompanied by corresponding findings that underpin these lessons. Each section starts by presenting a lesson, after which the report explains the supporting findings with triangulated evidence from impact evaluations, performance and process evaluations, the positive deviance assessment, the case studies and the analyses of the VNR data. The section starts each lesson with a table presenting the main topics from which the lesson was drawn (e.g., trade, finance, technology, systemic issues, capacity-building, equity and VNR data), the methods used to generate the lesson and the supporting sub-findings. In the presentation of the findings, we cite example papers which illustrate specific points.[20]

5.1 Lessons on trade

This section discusses the lessons and supporting findings on trade. We present lessons on the effectiveness of global and regional trade agreements, bilateral trade agreements and export subsidies to examine what works in accelerating SDG-17 trade objectives.

Countries use various 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 a government policy to subsidize the export of goods, thus discouraging sales on 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 (Aboal & Pereira, 2020). The impact evaluations and case studies include evidence about the effectiveness of these policy instruments in middle- and lower-income countries. Furthermore, performance and process evaluations of initiatives to build capacity in

---

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

trade point to 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	• Impact evaluations • Case studies • Performance and process evaluations	• 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 smaller effects 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.

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 was instrumental to increasing its exports. Joining the free-trade zone of the Commonwealth of Independent States in 2013, the associated tariff reductions and price liberalization likely contributed to the ability of Uzbekistan to accelerate its economic growth (Izvorski et al., 2021). Predictions now suggest that Uzbekistan may become one of the fastest-growing economies, among other reasons 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
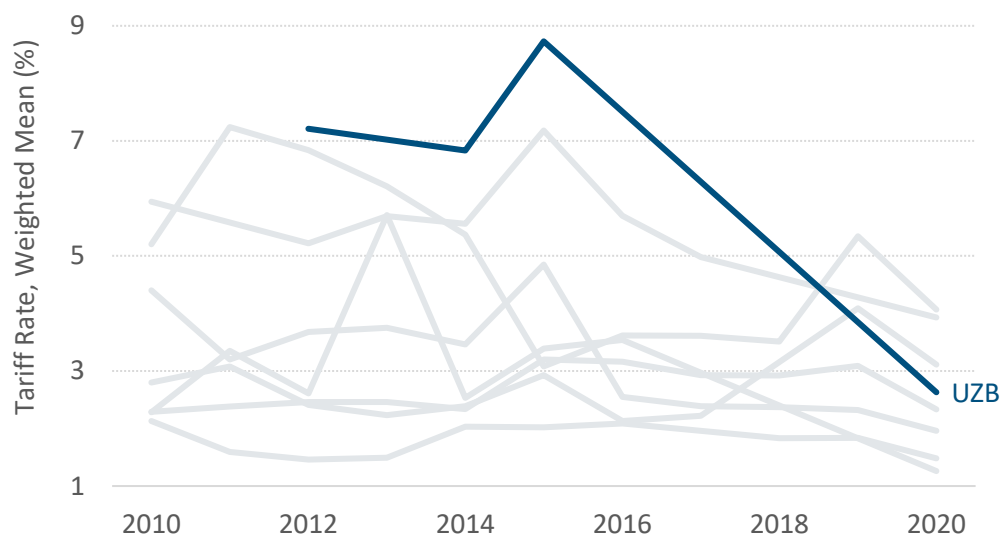
Source: author's calculations using data from the SDG Tracker

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 indicated that the China-ASEAN Free Trade Area likely also stimulated Chinese firms' exports to the regional market though 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 exports of countries along the One Road and One Belt that signed a regional trade agreement with China (Mao et al., 2019). The same study did, however, find a smaller effect of the regional trade agreement 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 with high bribe payments because these 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.[21]

---

[21] 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.

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 positive impacts on export values in some MIC contexts, evidence remains mixed and does not show the same acceleration in exports as after 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 included impact evaluations of export subsidies generally show smaller effects 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 export values (Braakmann et al., 2020), a different impact evaluation shows that tax cuts to promote exports led to reductions 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. In fact, 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 (2018) indicates that entry into the EU and United States (US) markets creates

> *Even though [least-developed countries] general 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*

challenges for LICs because of procedural obstacles. One performance evaluation assessed the 1415M 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 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.

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-randomized controlled trial in Egypt suggests that cluster-development policies may generate benefits, because firms can learn from exporting. This study shows that Egyptian rug producers increase their export values because they can improve technical efficiency after starting exports (Atkin et al., 2017). While evidence on such initiatives remains limited, these findings indicate that LICs can look beyond trade liberalization initiatives when they aim 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 an initiative's trade facilitation activities 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 least developed countries 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 otherwise absent such as infrastructure, credit facilities or additional follow-up (Harper, 2020; Ndung'u, 2018). 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**	Impact evaluations Case studies Performance and process evaluations	• 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 impacts of country accession to the WTO on exports depend 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 ([Ortiz-Ospina & Roser, 2022](#))) than on the number of Chinese imports from low- and middle-income countries (Van Biesebrouck et al., 2022). The same study shows that the impact of China's entry to the WTO on the number of Chinese imports is larger for differentiated products that are unique relative to the products sold on the Chinese domestic market (Van Biesebrouck et al., 2022). This is likely because consumers are less sensitive to the price of differentiated products (Van Biesebrouck et al., 2022). Finally, an investigation of China's accession to the WTO suggests that it led to improvements in export quality only for firms that faced binding credit constraints (Zhang et al., 2022). These firms likely had trouble securing external funding for quality-enhancing activities prior to China's WTO accession, but had more resources available after tariff reductions from the 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 the reintroduction of elections in 2013, while its textile sector collapsed after a coup against the President in 2009. Similarly, Myanmar dramatically increased its trade after the dissolving 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 lead to 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, but food and other regulations limit the ability of low-income sub-Saharan

African countries 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	• Performance and process evaluations • Impact evaluations • VNR analysis • Case study analysis	• 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 help 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 only show 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 least-developed countries in sub-Saharan Africa, except for some sectors (Ofei, 2017). An evaluation of the EU-Southern African Development Community 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.[22] 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. When MICs benefit from free-trade agreements, there may be negative spillovers, however. For example, when Algeria signed a bilateral free trade agreement with the EU, it led to reductions in Turkish exports to Algeria (Dincer 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

---

[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.

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

Context		Effect (95% CI)	% Weight
Low-income African countries, Preferential Trade Agreement		0.00 (-0.01, 0.01)	49.64
Southern Africa, Preferential Trade Agreement		0.01 (-0.02, 0.05)	32.97
Iran, Free Trade Zone		0.05 (-0.02, 0.11)	16.68
China, Regional Trade Agreement		0.42 (0.03, 0.80)	0.72
Overall, DL (I^2 = 56.0%, p = 0.078)		0.02 (-0.02, 0.05)	100.00

Impact of Trade Liberalization on Exports
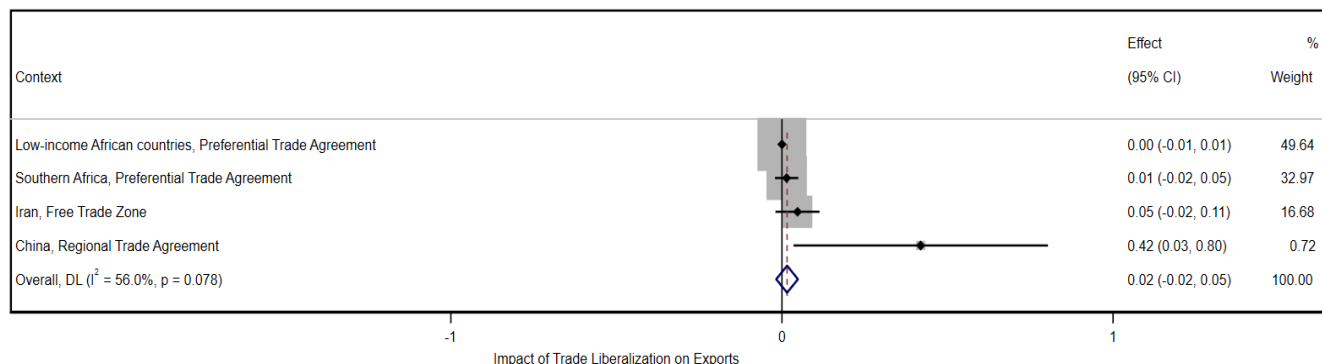
The findings indicate that preferential trade agreements are ineffective in increasing exports in sub-Saharan Africa, while regional trade agreements and other trade liberalization instruments show substantial and statistically significant effects on exports in China. Overall, the meta-analysis does not show statistically significant effects of trade liberalization, suggesting that these depend on the income status of the countries and the type of trade liberalization. We need to exercise some caution 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). Ndung'u's (2018) 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" (p. 37).

Making import regulations less stringent and removing quotas can indeed result in increases in exports from middle- to high-income countries, 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. In that case, 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 United States after the removal of US textile and apparel quotas, which previous restricted the quotas of India. In that case, textile and apparel exports from China to the US reduced because of the removal of quotas (Edwards & Sundaram, 2017). Finally, after a free trade agreement with the United States, average per capita inflows of FDI increased 7 percentage points more in Peru than in Bolivia (Baker et al., 2016).

Countries could also adjust their exporting 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 exporting 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 by exporting. For example, Egyptian rug producers increased their export values after being able to improve 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 of 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 could 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 countries along the One Road and One 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 increases in copper exports. At the same time, this case study shows 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).

5.2 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 with various countries experiencing challenges with repaying debt (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	• Impact evaluations • Case studies	• Tariff reductions result in export increases, but their effects are smaller in sub-Saharan African countries.

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
		• 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 export and economic growth after joining the free-trade zone of the Commonwealth of Independent States in 2013. In addition, US exports to China reduced significantly during the 2018-2019 trade war between the two countries (Ma et al., 2021). Further, regional free trade agreements between China and its trading partners seem to have resulted in significant 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 likely because of 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, though 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 World Trade Organization 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 its 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. As a result, Peru is better able to pay current debt obligations. Peru was able to significantly increase its exports, especially of copper, after a bilateral trade agreement with China (Dialogo Chino, 2021).

In addition, countries have various options to replace tariffs with other sources of tax revenue after trade liberalization initiatives. We discuss these options 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, but in the short term. the effectiveness of these policy instruments depends on the countries' income status.

Exhibit 16. Lesson 5 Evidence Summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade Finance	• Impact evaluations • Case studies	• While tariff reductions can result in substantial decreases in tax revenue, the introduction of VAT taxes can fully compensate for the loss in 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.

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
		• 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 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 on 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, they have 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 will likely 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 in fact shows no statistically significant effects and 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 low-income country 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 large 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 also resulted in a 64 percent increase in the growth of property tax revenue (Khan, Khwaja, & Olken, 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 looking to stimulate resource mobilization through a combination of measures, including the strengthening of tax collection capacity mentioned above. In addition, Madagascar aims to set up a coordination system, strengthen bilateral and multilateral cooperation, increase

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 LIC dependence on ODA.

Exhibit 17. Lesson 12 Evidence summary

SDG-17 topic areas	Triangulation by Study Types	Supporting Sub-findings
Finance	• Impact evaluations • VNR data • Case studies	• 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 these 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 (Ministry of Climate, 2023).

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 (General Assembly Economic and Social Council, 2023)), some new donors have considerably increased theirs. 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) which 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, at the same time 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, as discussed above, 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. Further, the country rebuilt the banking system, which led to increased trust in the financial system, followed by increased remittances, especially from migrants to Thailand (IGC, 2018). Similarly, remittances to Madagascar increased substantially following the return to electoral politics in 2013. Unfortunately, however,

ongoing political turmoil, coupled with the after-effects of COVID-19, seems 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 deterrence (Mascagni & Nell, 2022). However, in the Dominican Republic deterrence through increasing the salience of prison sentences or public disclosure of tax evaders seemed to have larger effects on tax revenue, especially for large firms (Holz et al., 2020). Similarly, in Peru a message to highlight detection had larger effects on tax revenue than messages that emphasized social norms and altruism. In fact, the message highlighting altruism had negative effects 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 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 $184 million (0.22 percent of GDP) in the Dominican Republic (Holz et al., 2020), despite larger effects of friendly messages in Rwanda (Mascagni & Nell, 2022). Further, the effects of making phone calls to collect taxes in Colombia led to a 25 percentage point increase in the likelihood that tax debtors paid unpaid taxes (Mogollon et al., 2021). 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.

5.3 Lessons on technology

This section discusses lessons and supporting findings on technology. We primarily focus on the adoption of technology to mitigate or adapt to the consequences of

climate change and the effects of the rollout of broadband internet, because impact evaluations focused primarily on these topics. We present lessons on the impact of green finance initiatives on green innovation. These initiatives increase financial flows to sustainable development priorities, such as green innovation. Further, 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 positively impact innovation, their effects remain small and have been 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. Green finance 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).[23]

Exhibit 18. Lesson 8 Evidence summary

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Finance	• Impact evaluations • Case studies	• The impact evaluations of green finance initiatives in large Asian

---

[23] 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.

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 effects of 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 a relatively small effect size.

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 CO_2 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.

The effect of green finance initiatives also remains unclear outside of China. While we found 10 impact evaluations focused 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, clearly 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, indicated 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 larger effects of green finance initiatives. The Government of Ireland increased its ODA in 2022 to represent 0.64 percent of gross national income (GNI), or about US$ 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 motivates its commitment to climate finance as a contribution 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 enable 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	• Impact evaluations • Case studies	• Access to quality broadband services has generated positive impacts on innovation for businesses and internet access

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
		for individuals in large Asian countries.
		• While evidence is weaker outside of 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 within the firm. Further, it can accelerate the digitization of processes that can potentially improve their quality of services. For individuals, broadband can help in accessing a range of services that were hitherto unavailable to them, 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).[24] 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 expenditures (Feng et al.,

---

[24] "Broadband China" aimed to provide, by 2015, more than half of households in target geographies with access to Internet with at least access speeds of 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%. Additionally, the Chinese government aimed to boost business network speeds to
100 Mbps in 2015 and 1000 Mbps in 2020. This component was specific to enterprises.

2023). In contrast, Wen et al. (2022) did not find any impacts of the roll-out of Broadband China on technological innovation. However, they did find that the programme helps in 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.

Evidence also indicates that improving access to broadband internet has positive impacts on digitization. Wang et al. (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 et al. (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.

Broadband infrastructure also likely contributes to digital financial inclusion, especially in underserved areas such as rural regions (Niu, 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
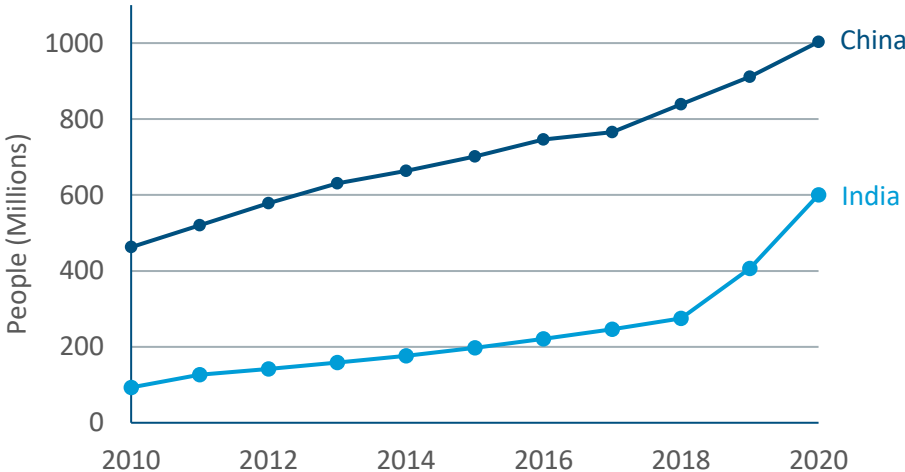
Source: Ritchie et al. (2023).

While evidence is less strong outside of China, internet access likely also contributed to technology outcomes in other low- and middle-income contexts. Case studies of multiple 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 will likely 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, 2020).

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 (Chwaula et al., 2020; Apiors & Aya, 2022; Niu, 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 (MacPherson et al., 2022) failed to deliver its desired outcomes to improve energy access and increase economic opportunities because, evaluators stated, "the Programme's top-down, pre-defined solution was not aligned with local preferences" (p. 20).

Performance and process evaluations also suggested that technology innovation faced longer-term challenges with ensuring financial and infrastructure maintenance (MacPherson et al., 2022; Nuwakora & Beyene, 2018; Schwensen et al. 2020; 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., 2020). 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 have been financially possible otherwise.

5.4 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 toward trade, finance and technology objectives under SDG-17. AIR also included 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 partnerships[25] contributed to the findings, where partnerships had trade, finance, or technology-related outcomes, and where evaluations had elements

---

[25] 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).

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 practices to achieve policy objectives (i.e., through policy frameworks and policies); and partnerships that allow governments to learn about 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 South-South Cooperation, n.d.). North-South cooperation refers to partnership-building between a high-income and a low- or middle-income country. When we do not describe 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 the 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 the SDG-17 objectives. For example, North-South partnerships are not usually based on principles of horizontal collaboration[26] with equal power relationships, and insufficiently consider contextual factors when designing partnership initiatives. South-South partnerships are more frequently based on horizontal collaboration based on trust, ownership and equal power relationships.

---

[26] The OECD defines "Horizontal Partnerships" as those "based on equity, trust, mutual benefit and long-term relations" (2011, p. 1).

Lesson 9: Countries' incentives for collaborating on SDG-17 components are influenced by their priorities, which 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	• Performance and process evaluations (primary source) • Impact evaluations • Case studies (secondary sources)	• 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 incentivised 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 (Demtschuck, 2019; Finlayson, 2021; International Trade Centre, 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 that countries at different stages of development may have had different expectations: "Some countries were mainly interested 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 (Demtschuck, 2019) recognized, "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).

> *"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).*

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 planning for close collaboration (Harper, 2020). This suggests that the initiative may not have considered whether each of the partners had sufficient incentives 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 International Trade Centre (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 incentivised 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 Swiss State Secretariat for Economic Affairs efforts to enhance trade and 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,

> *"SMEs embrace WEHU's support when it serves their business interest. Full stop." -Engelsman et al. 2019 p.10*

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).

Sector 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 business with the incentive to stimulate internet use in urban areas. In China, an impact evaluation showed that access to broadband did not only increase internet access, but also provided businesses with the incentives to invest in green innovation (e.g., by applying for green innovation patents) and reduce environmental pollution (Zou & Pan, 2023). One study indicated that the internet helps upgrade the industrial structure, which can lead to firms getting more competitive by investing in research and development (Bao, Zhou, & Li, 2022).

Lesson 10: South-South and trilateral cooperation show promise to accelerate progress toward SDG-17 results, including capacity development, by prioritizing trust and mutual ownership. Findings from process and performance evaluations show 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 toward SDG-17 over time (Demtschuck, 2019; Jalil, 2021; Kaplan et al., 2020; Khan & Zhou, 2018; Prasada Rao, 2020; Schwensen et al., 2020; South-South Cooperation Research and Policy Center [Articulação SUL], 2020; Pérez, 2019; UNFPA, 2020; Young & Jaou, 2021). Currently, South-South partnerships primarily focus on access to knowledge exchange and resources to enhance capacity among lower-income partners, but have room to improve achievement of concrete policy outcomes. The 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 facilitating and inhibiting factors toward achieving 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	• Performance and process evaluations	• 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 that the partnerships under the China South-South Development Center project have facilitated knowledge transfer that spanned 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 its 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 among countries in South-South partnerships also helped to facilitate more relevant activities, including regional integration (Demtschuck, 2020; Kaplan et al., 2020; UNFPA, 2020; WFP, 2021). Especially in trilateral cooperation, cooperating with a Southern donor can 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 (Demtschuck, 2019; Kaplan et al., 2020). In some South-South partnerships included in this review, greater ownership is promoted mainly through participatory approaches, where diverse stakeholders contribute to the planning and development of guidelines and structures (Bodnár & van Poelje, 2019; Demtschuck, 2019; Kaplan et al., 2020). In others, ownership is pursued through horizontal cooperation, where partners are engaged in joint 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 (Demtschuck, 2019).

Some South-South and trilateral partnerships have contributed to the improvement of policy frameworks and policies in 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" (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; International Trade Centre, 2018), seemingly because they were still in the stages of growing their approaches 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 on funding modalities, partnership design and governance structures. Building on the evidence about 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 (Barkataky, 2021; Bodnár & van Poelje, 2019; Brunagel et al., 2020; Caprile & Prasitpianchai, 2018; Chauvet et al., 2019; International Trade Centre, 2019; UNFPA Evaluation Office, 2020). For example, in a series of trainings that the International Trade Centre implemented in Tajikistan and Sri Lanka (2019) on trade facilitation, participants noted that a lack of country-specific details 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	• Performance and process evaluations • Case studies	• Some North-South partnerships suffered from limited context-specific knowledge on behalf of the Northern Partner and inequal 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, is likely to yield longer-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

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
		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 (International Trade Centre, 2019; Schwensen et al., 2010; van Blarcom et al., 2022). In addition, when programme officers lacked language skills, it impeded the efficiency and effectiveness of initiatives (International Trade Centre, 2019; Schwensen et al., 2020). In one case, a lack of adept cultural understanding of staff of the United Nations Industrial Development Organization (UNIDO) 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, the 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 & Prasitpianchi, 2018; van Gerwen et al., 2021; South-South Cooperation Research and Policy Centre, 2020), thus hindering initiative relevance and efficiency.

In a few cases, evaluations of partnerships initiatives found that North-South partnerships demonstrated an overt bias towards benefitting the Northern partner. For example, the van Gerwen et al. (2020) evaluation of the transition of Finnish-Vietnamese cooperation from a development aid model to one focused on bilateral trade and investments 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"* (p. 74).

Principles of horizontality, such as collaboration on design and implementation accounting for Southern partner interests, yield longer-term commitment and cooperation (ERBD Evaluation Department, 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 type 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) points 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 UNFPA Evaluation Office (2020) 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" (p. 31).

Evidence shows that, with horizontality principles in place, multilateral and northern partners can effectively act as a neutral broker of relationships between southern partners (Christensen, 2022; Genesis Analytics, 2018)**.** Many studies identified that multilateral agencies were particularly effective in serving as a neutral

provider of information between southern partners. For example, for the Brazil-UNICEF Trilateral South-South Cooperation programme on social protection, the evaluation (South-South Cooperation Research and Policy Centre, 2020) 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" (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 GBN 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 a 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; International Trade Centre, 2019; Schwensen et al., 2020; UNFPA, 2020), Northern partners did play an important role in providing resources and technical expertise (Jackson & Hargi, 2020; Pérez, 2019; World Bank, 2019a, 2021a, 2022; Young & Jaou, 2021). As an evaluation of the Belgian Cooperation's 'Digital for Development' programme notes, "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 could 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 shows that statistical a 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 less *ad hoc* (UNIDO Independent Evaluation Division, 2020), better harnessing knowledge and sharing documentation (UNFPA, 2020), and ensuring clarity on who 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. AIR's analysis found that 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 contained weak linkages. These challenges in the initial design 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**	• Performance and process evaluations • VNR analysis	• 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

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
		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 evaluated initiatives established theories of change that evaluators assessed as sufficient for establishing anticipated linkages between activities and expected outcomes (Christensen, 2022; Demtschuck, 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 for implementation (Birsan, 2018; DaPonte, 2022; ERBD Evaluation Department, 2020), and initiatives that did establish theories often lacked a thorough problem or risk analysis (Brunagel et al. 2020; Econotec, 2018; MacPherson et al., 2022; Ndung'u, 2018; Novovic, 2021; Isidor-Serrano and Pavel, 2022; Panades-Estruch, 2021; van Oyen & Mambreyan, 2019; World Bank, 2019a, 2022), or insufficient linkages between activities and expected outcomes (Chauvet et al., 2019; Daoust, 2019; International Trade Centre, 2022; Jackson & Harji, 2020; Jain & Tirfi, 2021; UNFPA Evaluation Office, 2020) or 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 infrastructural 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, 2019; Palaia et al., 2019; South-South Cooperation Research and Policy Centre, 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 (Barkataky, 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 their ability to monitor achievements (Christensen, 2022; Daoust, 2019; Finlayson, 2021; International Trade Centre, 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 knowledge sharing 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 "programmatic-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 is unlikely to lead to the desired development impacts.

> *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 programmatic-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*

In another example, Finlayson's (2021) evaluation of the European Bank for Reconstruction and Development's (ERBD) 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" (p. 30). Similarly, in a project to build the capacity of policymakers on non-tariff measures, Daoust (2019) argued that the activities to collect data, and produce and disseminate analytical and policy studies based on the data, as outlined in the theory of change, may not build capacity as intended. The evaluator wrote, "Theoretically, the activities do not clearly point to actual capacity-building events." (p. 16, Daoust, 2019).

The lack of clear connections between their activities and outcomes also limits the ability of initiatives to successfully monitor progress, a component necessary to building the capacity of LMICs to increase the availability of high-quality, timely and reliable data. A relatively small proportion of evaluations lacked an approach to

monitoring altogether, 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 to outcomes (Alonso & Wachirapuwadon, 2019; Birsan, 2018; EBRD Evaluation Department, 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'[27] indicators (ADB Independent Evaluation Department, 2018; Demtschuck, 2019; Econotec, 2018; Finlayson, 2021; Leutgeb, 2022; Mager, 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 revealed 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 2018), or had a weak or poorly defined governance structure (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; Thiessn et al., 2018; UNFPA Evaluation Office, 2020).

Relatedly, 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 pointed to issues related to coordination and communication as both the most prevalent facilitators and most prevalent barriers to initiative efficiency. Because coordination and communication are essential to partnership success, project planning must include sufficient budget for such administrative processes.

---

[27] Specific, Measurable, Achievable, Relevant and Time-bound.

Very few partnership initiatives of any type planned for sustainability through institutionalization or continued funding. Although partnership initiatives found success 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 through. The following example on Finnish-Viet Namese 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, 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 beginning as part of the theory of change, allowing more time to solidify an approach more likely to sustain activities. Where initiatives across topics did find success in sustaining activities, the most effective mechanisms were identifying a financial model, fostering government or institutional ownership, developing an exit strategy, or building the relationships and capacity for continuation.

5.5 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 included 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 consider 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 their data did not include information on these categories. Other impact evaluations did not report on distinct effects for women, youth and people with disabilities, possibly because they did not collect 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 to analyse VNR reports. 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	• Impact evaluations • Performance and process evaluations	• 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-

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
		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 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 (Barkataky, 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 2018; 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 but did not address inequities. For instance, capacity-building programmes tracked the number of female participants in trainings, although women often accounted for a much smaller share of participants (Engelhardt, 2018; International Trade Centre, 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 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 performance and process evaluations took measures that were sensitive to the needs of specific groups, or included some considerations to leave no one behind, although these measures often included notable gaps. Among population subgroups who are likely to be left behind, women were the most common group that initiatives included or considered to some degree (Barkataky, 2021; Christensen, 2022; EBRD Evaluation Department, 2020; Genesis Analytics, 2018; Harper, 2020; Jackson & Harji, 2020; Jain & Tirfi, 2021; Orth et al., 2020; Palaia et al., 2019; Schwensen et al., 2020; 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 (South-South Cooperation Research and Policy Centre, 2020; UNFPA Evaluation Office, 2020; WFP, 2021). Yet, initiatives and evaluations rarely addressed other subgroups and related equity issues such as 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 who are not digitally literate. However, the initiative failed to include gender mainstreaming or measure the effects on gender, which is important, considering, as the evaluator noted, "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, only very few impact evaluations report any equity

considerations in their analysis, suggesting that the equity implications of trade, finance and technology initiatives are widely understudied. Of the 169 included impact evaluations, less than 10 percent reported analyses related to gender, youth and other vulnerable groups.

The few impact evaluations that studied effects for groups that are likely to be left behind focused primarily on the effects for disproportionally 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. In addition, Mohollon 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 large impact on economically large 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 for men and women, youth, or low-income individuals or households.

One way to increase the focus on equity in impact evaluations is by increasing the availability of data on gender, youth and poverty in the impact evaluation 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 opportunities 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., 2017; 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, a minority of initiatives studied in the performance and process evaluations considered environment or environmental sustainability in

their design. Among the initiatives that did consider the environment, some assessed risk (Caraseni 2021; Demtschuck 2019, Nuwakora & Beyene, 2018; World Bank 2018b, 2018c), others did so because their initiative designs had a direct environmental impact (Engelsman et al. 2019, Jain & Tirfi, 2021; World Bank 2021a), and others integrated environmental considerations into their design (Brunegel et al., 2020; Van Gerwen et al., 2021; Jackson & Harji 2020). Integrating considerations into the design 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. Van Gerwen et al. 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 evaluated initiative to the environment (e.g., World Bank 2018c), while other evaluations noted the need for environmental standards. For example, Christensen et al. (2022) note, "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 may affect environmental sustainability at all.

Exhibit 26. Lesson 14 Evidence summary

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

SDG-17 topic areas	Triangulation by study types	Supporting sub-findings
Trade **Finance** **Technology** **Partnerships** **Equity**	• VNR data	• 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 often use statistical data to learn about progress in SDG-17 indicators in their VNR reports. However, the reports do not often consider how trends differ between men and women, for youth and for people with disabilities. As a result, the VNR reports present limited information on equity, which limits the ability of countries to learn about 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 details about at-risk or underserved populations in the countries and how progress towards SDG-17 goals is affecting them. For instance, while VNRs talk about inflows of FDI, it is unclear to what productive purposes the inflows are directed and how, if at all, these investments are enabling vulnerable populations to improve their welfare.

In-depth problem analyses on the specific needs of the 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. Further, multi-stakeholder partnerships, especially those where partners from high- or upper-middle-income countries co-create solutions, can benefit from understanding and designing solutions with 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**	• VNR data	• 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 in achieving their SDG-17 indicators. However, VNR reports generally do not link statistical data to specific SDG-17 initiatives. As a result, VNR reports are usually not able to explain trends in SDG-17 indicators. The few times that VNR reports have explained trends in SDG-17 indicators by linking them to specific initiatives, they did not cite evaluative evidence, limiting the reliability of claims on which initiatives contributed to progress in SDG-17 indicators. For example, India reported how "…The Atal Innovation Mission (AIM), driven by NITI Aayog, is radically transforming the innovation and entrepreneurship landscape in India. Atal

Tinkering Labs (ATL) operating in schools are galvanizing design mindset, computational thinking, adaptive learning and physical computing across various themes." 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 this evaluative evidence may require improved communication between the authors of VNR reports and country or United Nations 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 what kind of programming can help 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	• VNR data	• 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 remain general, limiting the ability of implementers to understand what initiatives could accelerate SDG-17 objectives.

Limited descriptions of effective SDG-17 initiatives may limit the ability of implementers to successfully replicate effective programmes. Lack 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**	• VNR data	• 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 communicate frequently about trade and finance, a smaller number speak about 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 the different SDG-17 categories.

Exhibit 30. VNR reports that include at least 10 keywords associated with SDG-17 categories.
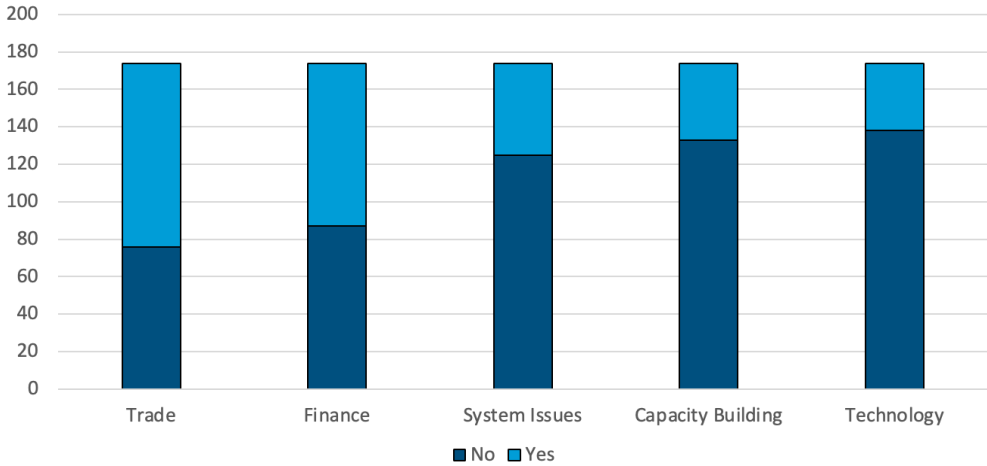
Data science methods also allowed AIR to examine the sentiment with which VNR reports spoke about progress on SDG-17. Three different models (VADER, BERT and TextBlob) each showed a moderately positive outlook of VNR reports toward progress on SDG-17. For example, Liechtenstein reported that "Through specific aid and development projects, Liechtenstein supports developing countries as partners in the implementation of the SDGs". Exhibit 31 highlights the results of the three different models conducting sentiment analyses.

Exhibit 31. Sentiment of VNR reports toward SDG-17 progress
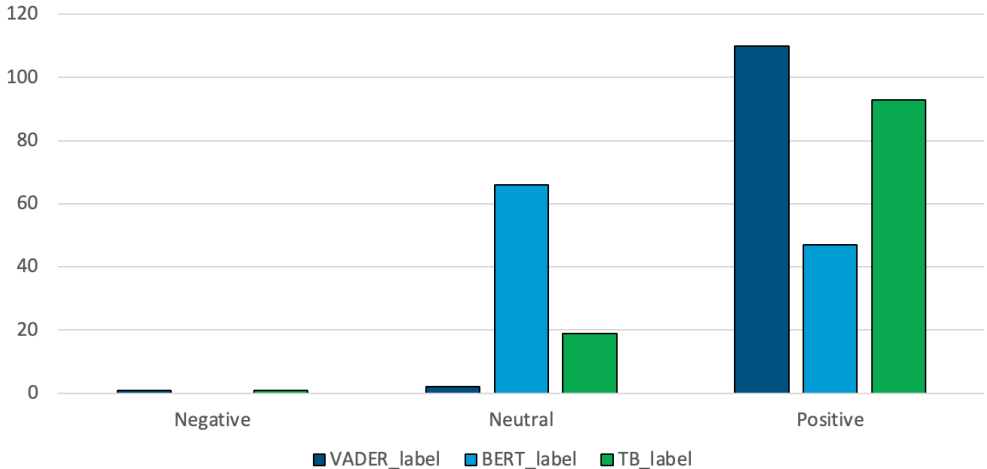
More inclusion of statistical data and evaluative evidence in VNR reports can potentially increase the correlation between progress in SDG-17 indicators and sentiment scores of VNR reports. Currently, VNR sentiment scores are not statistically significantly associated with progress in SDG-17 indicators, 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.

6. 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 the third and fourth synthesis questions (based on the synthesis of impact, performance and process evaluations). We link our responses to Table B-1 in Annex B, which summarizes what works to accelerate SDG-17 indicators, as well as why and how some initiatives are more or less successful in achieving SDG-17 progress.

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

No SDG-17 targets are currently on track. 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 to achieve SDG-17 objectives. Exhibit 32 highlights differences on SDG-17 progress across country categories taken from Sachs et al. (2022), 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 Countries	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., 2022.
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 non-official data sources.

Despite these challenges, there has been some progress in ODA and technology access. Total 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 (General Assembly Economic and Social Council, 2022), suggesting that increases in ODA may not be sustainable. 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 LMICs 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 (General Assembly Economic and Social Council, 2022), demonstrating an urgent need to increase government revenue in LICs.

With respect to trade, the least developed countries did not make sufficient progress. The share of exports of the least developed countries was 1.05 percent in 2021. The global community did thus not reach its objective of doubling the least developed countries' share of exports from 1.03 percent in 2011. Further, the worldwide tariff average of two percent in 2020 did not change since 2017 (General Assembly Economic and Social Council, 2022).

The COVID-19 pandemic also created significant challenges for data, monitoring, and accountability. After a decrease by $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 (General Assembly Economic and Social Council, 2022).

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?

AIR's 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 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 developed by AIR.

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, though the evidence of its importance was less strong in LICs. A regional trade agreement in Uzbekistan also contributed to 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. United Arab Emirates created a Ministry of International Cooperation and Development in 2013, and currently allocates 0.33 percent of its GPP to ODA. The Government of Ireland increased its ODA in 2022 to represent 0.64 percent of GNI, or about US$ 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 middle-income than in low-income countries, 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 businesses in a geographic zone to facilitate coordination for innovation have also had positive effects on exports in some MICs. However, only very few studies assess the impact of cluster development policies.

What works to improve finance indicators? VAT taxes are effective in increasing government revenue in MICs, but their effects are much lower in LICs, which need different tax collection initiatives to increase government revenue. In MICs, VAT taxes can likely 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 in increasing government revenue.

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. The effects of these initiatives are relatively small, however. 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 identify the priorities of different parties and outline the specific pathways that will lead to meeting 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 at catalyzing 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. Currently, 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 toward 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 higher institutional trust and larger 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 accelerations in green technology adoption in large Asian countries? Green finance initiatives may require more resources to have larger 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 sufficient incentives to make large investments in green innovation.

Why do South-South and trilateral partnership initiatives show more promise than North-South partnership initiatives to achieve progress toward SDG-17 related outcomes? South-South and trilateral partnerships show 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 of partners (i.e., South-South vs. North-South partnerships or trilateral cooperation), which can motivate partners to fund and institutionalize activities over the long-term. Although North-South partnerships are not 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. However, it is also important 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 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 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.

7. How SDG-17 initiatives can influence other SDGs

While each of the lessons can guide decisions on how to accelerate progress toward 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,[28] 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, 2018), 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.

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 exporting 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, Khwaja, & Olken, 2016), which can, in turn. result in increases or education or health expenditure under SDG-4 and SDG-3. In the technology space, innovation subsidies

---

[28] 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.

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 included systematic reviews do not present conclusive evidence on these trade-offs.

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 could 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).

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 different income levels. Addressing these needs necessarily requires trade-offs, where priority SDGs vary by partners. Such trade-offs in priorities are also evidenced in financing, which is lacking across all SDGs (UNDP IEO, 2022a). Accelerating progress toward SDG objectives is likely only feasible when low-, middle- and high-income countries establish horizontal relationships based on trust and autonomy and develop joint strategies to achieve SDG objectives.

Designing informed initiatives with mutually agreed outcomes

Across topics, it is imperative to use a theory of change or logical framework to design, monitor, evaluate and discuss initiatives. Initiatives that concretely 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 shows the importance of co-designing approaches to engagement in all types of partnerships, an approach that other literature has also shown to increase the likelihood of longer-term engagement leading to priority outcomes (Ministry of Foreign Affairs, EU and Cooperation, 2023).

In addition, data from our review indicate that planning for sustainability from the beginning of initiative allows more time to solidify and institutionalize an approach that is more likely to continue. The current review, as well as others, have showed the importance of assuming a longer time horizon for forming lasting partnerships that lead to concrete outcomes (UNDP IEO, 2021a). Using this approach, partners can also account for whether initiatives require current trade-offs and how such trade-offs can be accounted for in the future. Using data to track progress on SDG achievement is crucial for achieving outcomes, though collection of data on SDG progress is currently insufficient, especially for addressing the leave no one behind principle (UNDP IEO, 2021b, 2022b)

8. Areas for future research, evaluation and synthesis

This review is the first to provide important evidence on what works to improve SDG-17 outcomes 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 only found 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 in 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 hardly any 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 meta-analyses of trade liberalization and this meta-analysis only focused on a limited number of contexts, suggesting 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' (Heilman, 2008; Rodrik, 2008). China introduced many experimental regulations, experimental points and experimental zones that enabled the country to learn from its experience and allowed researchers and evaluators to conduct various quasi-experimental studies. As discussed by Rodrik (2018), the Chinese Government also learned tremendously on what works to improve economic growth from this experience. 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 providing researchers and evaluators with the opportunity to increase the evidence base on SDG-17 initiatives using quasi-experimental or experimental methods.

Increasing the rigour of evaluations

It also remains important to increase the rigour of impact evaluations. As discussed in the risk of bias assessment, less 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, while combining them with performance or process evaluations.

8.1 SDG-17 Evidence gaps

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

1. Various low-and middle-income countries, especially in sub-Saharan Africa, face a **public debt crisis**, threatening macro-economic 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 trade-led global economic growth.

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 connection between States is unavoidable, which creates solutions as well as challenges.

The global community will require more evidence to mitigate these challenges and to understand how the 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, while also considering how research can account for the trade-offs in resolving these crises.

Public debt crisis

The existing evidence on finance primarily focuses on how to generate tax revenue, with limited emphasis on how to resolve public debt crises. This is despite the current global debt crisis with many countries in sub-Saharan Africa facing challenges repaying their government debt. Multiple policymakers highlighted the importance of generating evidence on how to resolve the debt crisis, a problem which is likely compounded by illicit financial flows. As discussed above, however, 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 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 the SDGs at the national level, using both domestic and international sources of public and private finance. The 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 (INFF, 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 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 CO_2 emissions and climate change, impeding progress towards SDG-13.

Currently, 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 CO_2 emissions, in addition to how 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 increasing exports on both trade and environmental outcomes.

Global trade to benefit low-income countries

While LIC exports could 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, especially 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 found that trade initiatives missed connecting 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 one promising alternative for export subsidies. Current evidence on cluster policies focuses on MICs. However, 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 because of climate change. The current evidence synthesis, which primarily focuses on more environmentally sustainable production through green innovation,[29] 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 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 AIR selected as part of its 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 focused 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 engaging the private sector in public-private partnerships, considering the importance of the private sector for environmentally sustainable practices.

Development cooperation enters a period of interdependence

Limited 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, the trends highlight 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 reforms 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 perceptions of reforms.

Based on these trends and findings, future research could focus on examining the impact of ODA from new donors, with additional research on 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-

---

[29] The evidence synthesis on the Planet Pillar will likely emphasize the energy crisis more explicitly

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 as 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., Ministry of Foreign Affairs, European Union and Cooperation, 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 differentially 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?

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, where 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 included systematic reviews 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 strong conclusions about progress related to statistical capacity-building, including questions such as: how do countries go about implementing their national statistical legislation and plans and where are there challenges (indicators 17.18.2 and 17.18.3)? What are the strengths and challenges associated with countries who 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 as part of their research questions. In this way, impact, performance and process evaluations can include research questions with greater relevance for those most likely to be left behind. Because statistical capacity is a cross-cutting issue across multiple SDGs, it is an important indicator to consider in the forthcoming Coalition syntheses where more specific and concrete data has 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 on 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 needed evidence to the global community.

Different evidence syntheses could use different strategies to appropriately respond 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 on these topics. For example, it could generate lessons about why and how certain initiatives are more or less impactful than other initiatives by combining a synthesis of existing systematic reviews with a synthesis of performance and process evaluations. This is because existing systematic reviews will likely almost only include impact evaluations and not 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 Pillar could emphasize specific priorities of key stakeholders (e.g., climate change or the energy crisis) to ensure a relevant evidence synthesis, but such focus may have less evidence available from systematic reviews. Finally, the Peace Pillar will likely have less evidence available than the 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.

9. References

Artopoulos, A., Friel, D., & Hallak, J. C. (2011). *Lifting the domestic veil: The challenges of exporting differentiated goods across the development divide* (No. w16947). National Bureau of Economic Research.

Asian Development Bank. (2021). Ireland and ADB Helping Small Island States in the Pacific Respond to Climate Change. Available from https://www.adb.org/news/features/ireland-adb-helping-small-island-states-pacific-respond-climate-change.

Brody, C., de Hoop, T., Vojtkova, M., Warnock, R., Dunbar, M., Murthy, P., & Dworkin, S.L. (2017). Can self-help group programs improve women's empowerment? A systematic review. *Journal of Development Effectiveness, 9*(1), 15-40.

Chinen, M., de Hoop, T., Balarin, M., & Alcazar, L. (2016). PROTOCOL: Vocational and business training to increase women's participation in higher skilled occupations in low-and middle-income countries: a protocol for a systematic review. *Campbell Systematic Reviews*, 12(1), 1-46.

Cook, T. D., Campbell, D. T., & Shadish, W. (2002). *Experimental and quasi-experimental designs for generalized causal inference* (Vol. 1195). Boston, MA: Houghton Mifflin.

De Hoop, Thomas, Andi Coombes, Melissa Rodgers, Averi Chakrabarti, Ozen Guven, Marlous de Milliano, Philomena Panagoulias, et al. (2023). "Synthesis of Evidence on the Partnership Pillar of the Sustainable Development Goals." New York: The Global SDG Synthesis Coalition. https://www.sdgsynthesiscoalition.org/pillar/partnership-pillar

Filho, W.L., Wall, T., Barbir, J., Nagle Alverio, G., Pimenta Dinis, M.A., & Ramirez, J. (2022). Relevance of international partnerships in the implementation of the UN sustainable development goals. *Nature Communications, 13 (613).*

Galiani, S & McEwan, P.J. (2013) The heterogeneous impact of conditional cash transfers, Journal of Public Economics, 103, pp. 85-96, https://doi.org/10.1016/j.jpubeco.2013.04.004.

General Assembly Economic and Social Council (2023). Progress towards the Sustainable Development Goals: Towards a Rescue Plan for People and Planet: Report of the Secretary-General (Special Edition). Available from

https://hlpf.un.org/sites/default/files/2023-04/SDG%20Progress%20Report%20Special%20Edition.pdf

Government of Ireland. (2019). A Better World Ireland's Policy for International Development. Available from https://www.irishaid.ie/media/irishaid/aboutus/abetterworldirelandspolicyforinternationaldevelopment/A-Better-World-Irelands-Policy-for-International-Development.pdf.

Government of Ireland (2022). Ireland's International Climate Finance Roadmap – 2022. Available from https://irishaid.ie/media/irishaid/publications/2022-Irelands-International-Climate-Finance-Roadmap-Digital.pdf

Heilmann, S., "Policy Experimentation in China's Economic Rise," Studies in Comparative International Development, Vol. 43, Issue 1, Spring 2008, pp. 1-26.

Hombrados, J., & Waddington, H. (2012). Internal validity in social experiments and quasi-experiments: An assessment tool for reviewers. Mimeo. 3ie.

Kurjanska, M., & Risse, M. (2008). Fairness in trade II: export subsidies and the Fair Trade movement. *Politics, Philosophy & Economics*, *7*(1), 29-56.

Lu, M., Luo, Q., & Feng, D. (2022). Ecological innovation effect of broadband network infrastructure: Evidence from China. *Managerial and Decision Economics*.

Marginson, S. (2022). 'All things are in flux': China in global science. *Higher Education.*

Ministry of Foreign Affairs, European Union and Cooperation (2023). Synthesis of the evaluations of the Country Association Frameworks 2015-2022. Madrid. https://www.cooperacionespanola.es/es/publicacionesde-evaluacion

Muggah, R. (2023). Opinion: As Chinese Aid Slows Down, the Whole World Will Feel the Pinch. Available from https://www.devex.com/news/opinion-as-chinese-aid-slows-down-the-whole-world-will-feel-the-pinch-105359.

Nakamura, P., Molotsky, A., Castro Zarzur, R., Ranjit, V., Haddad, Y., & de Hoop, T. (Forthcoming). Language of instruction in schools in low-and middle-income countries: A systematic review. *Campbell Systematic Reviews.*

Nuruzzaman, N., Gaur, A., & Sambharya, R. B. (2022). WTO accession and firm exports in developing economies. *Journal of International Business Policy*, *5*(4), 444-466.

OECD. 2011. "Unlocking the Potential of South-South Cooperation: Policy Recommendations from the Task Team on South-South Cooperation." https://www.oecd.org/dac/effectiveness/TT-SSC%20Policy%20Recommendations.pdf

Pascale, R. T. Sternin, J., & Sternin, M. (2010). The power of positive deviance: How unlikely innovations solve the world's toughest problems. Harvard business Review 88 (10), 1 – 10.

Rhee, H. (2011). "Promoting South-South Cooperation through Knowledge Exchange," *Catalyzing Development: A New Vison for Aid*. Brookings Institution Press, Washington D.C.

Ritchie, H., Mathieu, E., Roser, M., & Ortiz-Ospina, E. (2023). Internet. Available from: https://ourworldindata.org/internet.

Rodrik, D. (2018a). The new development economics: We shall experiment, but how shall we learn? Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1296115

Rodrik, D. (2018b). What do trade agreements really do?. *Journal of economic perspectives*, *32*(2), 73-90.

Sachs, J. (2023). Sustainable Development Report 2023: Implementing the SDG Stimulus, Includes the SDG Index and Dashboards. Available at https://s3.amazonaws.com/sustainabledevelopment.report/2023/sustainable-development-report-2023.pdf

Scarlato, M., & d'Agostino, G. (2019). Cash transfers, labor supply, and gender inequality: Evidence from South Africa. *Feminist Economics*, *25*(4), 159-184.

Silge, J., & Robinson, D. (2017). Text mining with R: A tidy approach. " O'Reilly Media, Inc.".

Stone, R., De Hoop, T., Coombes, A., & Nakamura, P. (2020). What works to improve early grade reading in Latin America and the Caribbean? A systematic review and meta-analysis. *Campbell Systematic Reviews*, 16(1), 1-112.

Thomas, J., Graziosi, S., Brunton, J., Ghouze, Z., O'Driscoll, P., & Bond, M. Koryakina A (2022). EPPI-Reviewer: advanced software for systematic reviews, maps and evidence synthesis. EPPI Centre, UCL Social Research Institute, University College London

United Nations Development Program Independent Evaluation Office (2021a). *Evaluation of UNDP Support to Energy Access and Transition.* https://erc.undp.org/evaluation/documents/download/19690

United Nations Development Program Independent Evaluation Office (2021b). *Evaluation of the UNDP Strategic Plan, 2018-2021.* https://erc.undp.org/evaluation/documents/download/18688

United Nations Development Program Independent Evaluation Office (2022a). *Financing the Recovery: A formative evaluation of UNDP's response to the COVID-19 pandemic and SDG financing.* https://erc.undp.org/evaluation/documents/download/20116

United Nations Development Program Independent Evaluation Office (2022b). *Formative Evaluation of the Integration by UNDP of the Principles of "Leaving No One Behind."* https://erc.undp.org/evaluation/documents/download/21854

United Nations Industrial Development Organization (2019). Climate change, clean energy, and urban water in Africa. Promoting market-based deployment of clean energy technology solutions in municipal waterworks: Pilot initiative in South Africa. https://www.unido.org/sites/default/files/files/2019-11/140341_South%20Africa_Climate%20Change_Clean%20Energy_Urban%20Water.pdf

United Nations Office for South-South Cooperation. (n.d.). "About South-South and Triangular Cooperation." https://unsouthsouth.org/about/about-sstc/

United Nations Sustainable Development Group. (n.d.) "Leave no one behind." https://unsdg.un.org/2030-agenda/universal-values/leave-no-one-behind

UNFPA. (2019). *Gender equality strategy: 2019-2021.* https://www.unfpa.org/sites/default/files/pub-pdf/19-132_UNFPA_GenderStrategy-EN.pdf

UNFPA Policy and Strategy Division. (2022). *UNFPA corporate strategy on South-South and triangular cooperation.* UNFPA. https://www.unfpa.org/sites/default/files/pub-pdf/SSTC_Strategy_2022_web.pdf

UNICEF. (2021). *UNICEF Strategic Plan 2022-2025.* https://www.unicef.org/reports/unicef-strategic-plan-2022-2025

UNICEF. (2023). *Creating impact together. How private sector partnerships are shaping the future.* https://www.unicef.org/media/140201/file/Creating%20impact%20together%20.pdf

UN Women Independent Evaluation Service. (2021). *Corporate formative evaluation of UN Women's approach to innovation.* UN Women.

White, H. (2009). Theory-based impact evaluation: Principles and practice. *Journal of Development Effectiveness 1 (3)*: pp. 271-284.

World Trade Organization. (2022). Ireland gives EUR 400,000 to strengthen developing countries' participation in world trade. Available from https://www.wto.org/english/news_e/pres22_e/pr908_e.htm.

9.1 Included Impact Evaluations

Aboal D, Perera M and Rovira F. (2020). Cluster development policies and firms' performance: evidence from an emerging economy in Latin America. JOURNAL OF ENTREPRENEURSHIP IN EMERGING ECONOMIES, 12(5), pp.687-726.

Adandohoin K and Ganunadigbe V. (2022). The revenue efficiency consequences of the announcement of a tax transition reform: The case of WAEMU countries. AFRICAN DEVELOPMENT REVIEW-REVUE AFRICAINE DE DEVELOPPEMENT, 34, pp. S195-S218.

Aisaiti G, Xie JP and Zhang TT. (2022). National Innovation Demonstration Zone policy and city innovation capability - a quasi-natural experimental analysis. INDUSTRIAL MANAGEMENT & DATA SYSTEMS, 122(5), pp. 1246-1267.

Akgündüz Yusuf Emre and Kal Süleyman Hilmi; Torun Huzeyfe. (2018). Do Subsidised Export Loans Increase Exports? The World Economy, 41(8), pp.2200-2215.

Alavuotunki Kaisa, Haapanen Mika and Pirttilä Jukka. (2019). The Consequences of the Value-Added Tax on Inequality. The Journal of Development Studies, 55(4), pp.490–508-90–508.

Albis N, Marin R and Sanchez E ; Bayona H ; Garcia JM ;. (2021). The impacts of public support for innovation on firm productivity and on private investment in R&D in manufacturing and services in Colombia. INNOVATION AND DEVELOPMENT.

Ali S. (2019). Export Response to Technical Barriers to Trade: Firm-Level Evidence from Pakistan. JOURNAL OF DEVELOPMENT STUDIES, 55(4), pp. 527-547.

Ambaw DT and Sim N. (2018). Is inflation targeting or the fixed exchange rate more effective for attracting FDI into developing countries? APPLIED ECONOMICS LETTERS, 25(7), pp.499-503.

An Zhiyong and Hou Yilin. (2020). Debt Authority and Intentional Overstatement of Budgetary Deficit: Evidence From Chinese Provinces. International Tax and Public Finance, 27(2), pp.461-477.

Apiors Emmanuel Kwablah and Suzuki Aya. (2022). Effects of Mobile Money Education on Mobile Money Usage: Evidence from Ghana. The European Journal of Development Research.

Atkin D, Khandelwal AK and Osman A. (2017). EXPORTING AND FIRM PERFORMANCE: EVIDENCE FROM A RANDOMIZED EXPERIMENT. QUARTERLY JOURNAL OF ECONOMICS, 132(2), pp.551-615.

Avsar Veysel and Sevinc Nurgul. (2019). Does Antidumping Cause Investment and R&D?: Evidence from Turkey. Applied Economics, 51(52), pp.5674-5682.

Baker Phillip, Friel Sharon and Schram Ashley; Labonte Ron. (2016). Trade And Investment Liberalization, Food Systems Change and Highly Processed Food Consumption: A Natural Experiment Contrasting The Soft-Drink Markets Of Peru And Bolivia. Globalization and Health, 12.

Bal Gündüz Yasemin and Crystallin Masyita. (2018). Do IMF Programs Catalyze Donor Assistance to Low-Income Countries?. The Review of International Organizations, 13(3), pp.359-393.

Balan P, Bergeron A and Tourek G ; Weigel JL. (2022). Local Elites as State Capacity: How City Chiefs Use Local Information to Increase Tax Compliance in the Democratic Republic of the Congo. AMERICAN ECONOMIC REVIEW, 112(3), pp.762-797.

Banerjee S, Homroy S and Slechten A. (2022). Stakeholder preference and strategic corporate social responsibility. JOURNAL OF CORPORATE FINANCE, 77.

Bao Q, Hou J and Li KW; Wang XS. (2017). The impact of tax rebates on export performance: China's textile exports to the USA. ASIAN-PACIFIC ECONOMIC LITERATURE, 31(1), pp.79-89.

Bao Zhe, Zhou Xiaoliang and Li Guanghao. (2022). Does the Internet Promote Green Total Factor Productivity? Empirical Evidence from China. Other, 31(2), pp.1037-1048.

Batista Cátia and Vicente Pedro C. (2020). Improving access to savings through mobile money: Experimental evidence from African smallholder farmers. World Development, 129.

Bayale N, Tchila P and Yao JPA; Tenakoua H ;. (2022). Do tax administration reforms improve tax revenue performance in Togo? Empirical insights from experimental approaches. SOUTH AFRICAN JOURNAL OF ECONOMICS, 90(2), pp.196-213.

Belin M and Hanousek J. (2021). Which sanctions matter? analysis of the EU/russian sanctions of 2014. JOURNAL OF COMPARATIVE ECONOMICS, 49(1), pp.244-257.

Benin Samuel, Karugia Joseph and Matchaya Greenwell; Yade Mbaye. (2020). Improving Data Quality for the CAADP Biennial Review: A Partnership Initiative Piloted in Five Countries. Available at: https://www.ifpri.org/publication/improving-data-quality-caadp-biennial-review-partnership-initiative-piloted-five.

Bernhofen D, Upward R and Wang Z. (2018). Quantity restrictions and price adjustment of Chinese Textile Exports to the US. WORLD ECONOMY, 41(11), pp.2983-3000.

Bjorkegren, D., and Karaca, B.C. (2022). Network adoption subsidies: A digital evaluation of a rural mobile phone program in Rwanda. Journal of Development Economics, 154.

Braakmann Nils, Gao Bo and Maioli Sara. (2020). VAT Rebates as Trade Policy: Evidence From China. China Economic Review, 63.

Brockmeyer Anne and Hernandez Marco. (2016). Taxation, Information, And Withholding: Evidence From Costa Rica. pp.1-57. Available at: http://documents.worldbank.org/curated/en/447111468195552292/Taxation-information-and-withholding-evidence-from-Costa-Rica.

Brockmeyer Anne, Hernandez Marco, Kettle Stewart and Smit Spencer. (2016). Casting The Tax Net Wider: Experimental Evidence From Costa Rica. Available at: http://documents.worldbank.org/curated/en/660661475679714942/Casting-the-tax-net-wider-experimental-evidence-from-Costa-Rica.

Buettner Thiess and Madzharova Boryana. (2018). WTO Membership and the Shift to Consumption Taxes. World Development, 108, pp.197-218.

Cadot O, Fernandes AM and Gourdon J Mattoo A. (2015). Are the benefits of export support durable? Evidence from Tunisia. JOURNAL OF INTERNATIONAL ECONOMICS, 97(2), pp.310-324.

Campos Francisco, Goldstein Markus and Mckenzie David. (2019). The Impacts Of Formal Registration Of Businesses In Malawi: pp.1-47. Available at: http://www.3ieimpact.org/evidence-hub/publications/impact-evaluations/impacts-formal-registration-businesses-malawi.

Cao Xiang. (2021). Impact of the Belt and Road Initiative on Environmental Quality in Countries Along the Routes. 19(4), pp.344-351.

Cariolle J. (2021). International connectivity and the digital divide in Sub-Saharan Africa. INFORMATION ECONOMICS AND POLICY, 55.

Castro JF, Velasquez D, Beltran A and Yamada G; (2022). The direct and indirect effects of messages on tax compliance: Experimental evidence from Peru. JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION, 203, pp.483-518.

Chalendard Cyril. (2016). Shifting-Profits Through Tax Loopholes. Evidence From Ecuador. pp.1-39. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2905655.

Chanyalew Moges Asressie. (2022). The Effectiveness of the Capacity Building and Mentorship Program in Improving Evidence-Based Decision-making in the Amhara Region, Northwest Ethiopia: Difference-in-Differences Study.

Chaurey Ritam. (2017). Location-Based Tax Incentives: Evidence From India. Journal of Public Economics, 156, pp.101-120.

Chen YH, Xu CS and Yi M. (2019). Does the Belt and Road Initiative Reduce the R&D Investment of OFDI Enterprises? Evidence from China's A-Share Listed Companies. SUSTAINABILITY, 11(5).

Chen Yiling. (2021). Government Intervention and Firm Innovation Outputs: A Heterogeneity of Corporate Governance of Chinese Listed Firms. Applied Economics Letters, 29(21).

Chen Y, Zhang Y and Zhao L. (2022). Export creation of the Belt and Road Initiative: "Give-them-a-fish" or "Teach-them-to-fish"?. INTERNATIONAL STUDIES OF ECONOMICS, 17(4), pp.531-549.

Chen QP, Ning B and Pan Y Xiao JL. (2022). Green finance and outward foreign direct investment: evidence from a quasi-natural experiment of green insurance in China (Sep, 10.1007/s10490-020-09750-w, 2021). ASIA PACIFIC JOURNAL OF MANAGEMENT, 39(3), pp.925-925.

Chen ZG, Zhang YQ, Wang HS, Ouyang X and Xie YX. (2022). Can green credit policy promote low-carbon technology innovation?. JOURNAL OF CLEANER PRODUCTION, 359.

Cheng Dong, Hu Zhongzhong and Tan Yong. (2021). Heterogeneous Impacts of Finance on Firm Exports: Evidence from Export Deregulation in a Large Developing Country. The World Economy, 44(11), pp.3326-3350.

Cheng Bo, Qiu Baoyin, Chan Kam C and Zhang Hongxia. (2021). Does a green tax impact a heavy-polluting firm's green investments? Applied Economics, 54(2), pp.189-205.

Chiwaula Levison, Matita Mirriam and Kamwanja Tayamika ; Cassim Lusius ; Agurto Marcos ;. (2020). Combining Financial-Literacy Training and Text-Message Reminders to Influence Mobile-Money Use and Financial Behavior among Members of Village Savings and Loan Associations: Experimental Evidence from Malawi. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3631410.

Cigna S, Meinen P and Schulte P ; Steinhoff N. (2022). The impact of US tariffs against China on US imports: Evidence for trade diversion? ECONOMIC INQUIRY, 60(1), pp.162-173.

Cipollina M. (2022). The Trade Growth under the EU-SADC Economic Partnership Agreement: An Empirical Assessment. ECONOMIES, 10(12)

Dai Xiaoyong and Wang Fan. (2019). Does the High- and New-technology Enterprise Program Promote Innovative Performance? Evidence From Chinese Firms. China Economic Review, 57, pp.1-20.

Dai XY, Verreynne ML and Wang JH; He YA. (2020). The behavioral additionality effects of a tax incentive program on firms' composition of R&D investment. R & D MANAGEMENT, 50(4), pp.510-521.

Defever Fabrice, Reyes José-Daniel and Riaño Alejandro; Varela Gonzalo ;. (2020). All these Worlds are Yours, Except India: The Effectiveness of Cash Subsidies to Export in Nepal. European Economic Review, 128.

Demir B, Michalski TK and Ors E. (2017). Risk-Based Capital Requirements for Banks and International Trade. REVIEW OF FINANCIAL STUDIES, 30(11), pp.3970-4002.

Luo SY, Yimamu N and Li YR; Wu HT ; Irfan M ; Hao Y ;. Digitalization and sustainable development: How could digital economy development improve green innovation in China? BUSINESS STRATEGY AND THE ENVIRONMENT.

Dincer NN, Tekin-Koru A and Yasar P. (2018). Costs of a missing FTA: the case of Turkey and Algeria. EMPIRICA, 45(3), pp.489-505.

Ding K, Xu HL and Yang RM. (2021). Taxation and Enterprise Innovation: Evidence from China's Value-Added Tax Reform. SUSTAINABILITY, 13(10).

Ding HY, Koedijk KG and Qi T; Shen YQ ;. (2022). US-China trade war and corporate reallocation: Evidence from Chinese listed companies. WORLD ECONOMY, 45(12), pp.3907-3932.

Ding XW, Jing RX and Wu KK; Petrovskaya MV; Li ZK; Steblyanskaya A; Ye L; Wang XT; Makarov VM;. (2022). The Impact Mechanism of Green Credit Policy on the Sustainability Performance of Heavily Polluting Enterprises-Based on the Perspectives of Technological Innovation Level and Credit Resource Allocation. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 19(21).

Dong F, Li YF and Qin C, Zhang XY; Chen YH; Zhao X ; Wang C ;. (2022). Information infrastructure and greenhouse gas emission performance in urban China: A difference-in-differences analysis. JOURNAL OF ENVIRONMENTAL MANAGEMENT, 316.

Dong Z, Xu HD and Zhang ZF; Lyu YP; Lu YQ; Duan HY;. (2022). Whether Green Finance Improves Green Innovation of Listed Companies-Evidence from China. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 19(17).

Du Y, Yang MK and Li J; Li YN ;. (2020). The Stagnant Export Upgrading in Northeast China: Evidence from Value-added Tax Reform. CHINA & WORLD ECONOMY, 28(4), pp.101-126.

Du M, Zhang RR and Chai SL ; Li Q ; Sun RX ; Chu WJ ;. (2022). Can Green Finance Policies Stimulate Technological Innovation and Financial Performance? Evidence from Chinese Listed Green Enterprises. SUSTAINABILITY, 14(15).

Duodu E, Oteng-Abayie EF and Frimpong PB; Takyi PO ;. (2022). The impact of the Compact with Africa initiative on foreign direct investments and environmental pollution. MANAGEMENT OF ENVIRONMENTAL QUALITY, 33(6), pp.1457-1475.

Edwards Lawrence and Sundaram Asha. (2017). Trade Liberalization, Rival Exporters and Reallocation of Production: An Analysis of Indian Manufacturing. Review of International Economics, 25(3), pp.677-693.

Essers Dennis and Ide Stefaan. (2019). The IMF and Precautionary Lending: An Empirical Evaluation of the Selectivity and Effectiveness of the Flexible Credit Line. Journal of International Money and Finance, 92, pp.25-61.

Fang Hongsheng, Bao Yuxin and Zhang Jun. (2017). Asymmetric Reform Bonus: The impact of VAT Pilot Expansion On China's Corporate Total Tax Burden. China Economic Review, 46, pp. S17-S34.

Fang ZW, Li ZH and Tao S. (2022). Environmental Information Disclosure, Fiscal Decentralization, and Exports: Evidence From China. FRONTIERS IN ENVIRONMENTAL SCIENCE, 10.

Fang HS, Su YQ and Lu WJ. (2022). Tax incentive and firm investment: Evidence from the Income Tax Revenue Sharing Reform in China. ACCOUNTING AND FINANCE, 62(5), pp.4849-4884.

Fang L, Tang HY and Mou MG. (2022). Innovation-driven development and urban carbon emission reduction: a quasi-natural experiment in China. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH.

Feng C, Ye YW and Tao YQ. (2022). Tax Authority Enforcement and Corporate Social Security Contributions: Evidence from China. FINANCE RESEARCH LETTERS, 49.

Feng Y, Chen Z and Nie CF. (2023). The effect of broadband infrastructure construction on urban green innovation: Evidence from a quasi-natural experiment in China. ECONOMIC ANALYSIS AND POLICY, 77, pp.581-598.

Fernandes AM, Hillberry R and Alcantara AM. (2021). Trade Effects of Customs Reform: Evidence from Albania. WORLD BANK ECONOMIC REVIEW, 35(1), pp.34-57.

Gadenne Lucie. (2017). Tax Me, but Spend Wisely? Sources of Public Finance and Government Accountability. American Economic Journal: Applied Economics, 9(1), pp.274-314.

Gao K and Yuan YJ. (2021). The effect of innovation-driven development on pollution reduction: Empirical evidence from a quasi-natural experiment in China. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE, 172.

Gao Da, Mo Xinlin and Duan Kun; Li Yi. (2022). Can Green Credit Policy Promote Firms' Green Innovation? Evidence from China. Sustainability, 14(3911).

Gao D, Mo XL and Xiong RC ; Huang ZL ;. (2022). Tax Policy and Total Factor Carbon Emission Efficiency: Evidence from China's VAT Reform. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 19(15).

Ge Yuqing, Hu Yucai and Ren Shenggang ;. (2020). Environmental Regulation and Foreign Direct Investment: Evidence from China's Eleventh and Twelfth Five-Year Plans. Sustainability, 12(6).

Gourdon J, Hering L and Monjon S ; Poncet S ;. (2022). Estimating the repercussions from China's export value-added tax rebate policy*. SCANDINAVIAN JOURNAL OF ECONOMICS, 124(1), pp.243-277.

Guo BN, Wang Y and Feng Y ; Liang CY ; Tang L ; Yao XF ; Hu F ;. (2022). The effects of environmental tax reform on urban air pollution: A quasi-natural experiment based on the Environmental Protection Tax Law. FRONTIERS IN PUBLIC HEALTH, 10.

Guo C, Wang YL and Hu YT; Wu YY; Lai XB. (2023). Does smart city policy improve corporate green technology innovation? Evidence from Chinese listed companies. JOURNAL OF ENVIRONMENTAL PLANNING AND MANAGEMENT.

Hakobyan S. (2020). GSP expiration and declining exports from developing countries. CANADIAN JOURNAL OF ECONOMICS-REVUE CANADIENNE D ECONOMIQUE, 53(3), pp.1132-1161.

Hao FJ, Xie YT and Liu XJ. (2020). The Impact of Green Credit Guidelines on the Technological Innovation of Heavily Polluting Enterprises: A Quasi-Natural Experiment from China. MATHEMATICAL PROBLEMS IN ENGINEERING, 2020.

Hartmann S and Spruk R. (2022). The impact of unilateral BIT terminations on FDI: Quasi-experimental evidence from India. REVIEW OF INTERNATIONAL ORGANIZATIONS.

Hoai NT, Toan NT and Van PH. (2017). Trade Diversion as Firm Adjustment to Trade Policy: Evidence from EU Anti-dumping Duties on Vietnamese Footwear. WORLD ECONOMY, 40(6), pp.1128-1154.

Hoekman Bernard and Shingal Anirudh. (2020). Aid for Trade and Trade in Services. Available at: https://cadmus.eui.eu/handle/1814/67007.

Holz JE, List JA and Zentner A ; Cardoza M ; Zentner JE. (2023). The $100 million nudge: Increasing tax compliance of firms using a natural field experiment. JOURNAL OF PUBLIC ECONOMICS, 218.

Hong Min, Li Zhenghui and Drakeford Benjamin. (2021). Do the Green Credit Guidelines Affect Corporate Green Technology Innovation? Empirical Research from China. International Journal of Environmental Research and Public Health, 18(4).

Hoy Christopher, McKenzie Luke and Sinning Mathias. (2021). Improving Tax Compliance Without Increasing Revenue: Evidence From Population-Wide Randomized Controlled Trials in Papua New Guinea. Available at: http://elibrary.worldbank.org/doi/book/10.1596/1813-9450-9539.

Hu C, Lin FQ and Tan Y; Tang YH. (2019). How exporting firms respond to technical barriers to trade?. WORLD ECONOMY, 42(5), pp.1400-1426.

Hu J and Zhang H. (2022). Has green finance optimized the industrial structure in China?. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH.

Huo D, Ouyang RH and Hung K Sun BW. (2018). Effect of Cross-Border E-Business Policy on the Export Trade of an Emerging Market: A Dynamic Study of Institutional Support to Cross-Border E-Business at Chinese Pilot Cities. EMERGING MARKETS FINANCE AND TRADE, 54(14), pp.3153-3167.

Inada M. (2022). Promotion or liberalization: The effect of targeted investment policies on foreign direct investment inflows. PACIFIC ECONOMIC REVIEW, 27(5), pp.489-505.

Irfan M, Razzaq A and Sharif A; Yang XD. (2022). Influence mechanism between green finance and green innovation: Exploring regional policy intervention effects in China. TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE, 182.

Jabbour, L., Tao, Z., Vanino, E., & Zhang, Y. (2019). The good, the bad, and the ugly: Chinese imports, European Union anti-dumping measures and firm performance. JOURNAL OF INTERNATIONAL ECONOMICS, 117, pp. 1-20.

Jaime Bonet-Morón, Pérez-Valbuena Gerson Javier and Ricciulli-Marín Diana ;. (2018). ¿Hay pereza fiscal territorial en Colombia?. Revista de Economía del Rosario, 21(2)

Jiang Qichuan, Ma Xuejiao and Wang Yun ;. (2021). How Does The One Belt One Road Initiative Affect The Green Economic Growth?. Energy Economics, 101.

Jiang LD, Zhang GF and Zhang H ;. (2022). The role of the Belt and Road Initiative: New opportunity for Chinese exporters?. WORLD ECONOMY.

Jouste Maria, Nalukwago Milly I and Waiswa Ronald ;. (2021). Do Tax Administrative Interventions Targeted at Small Businesses Improve Tax Compliance and Revenue Collection? Evidence from Ugandan Administrative Tax Data. : Available at: https://www.econstor.eu/handle/10419/229418.

Juust M. (2021). Trade effects of a negative export shock on direct exporters and wholesalers. JOURNAL OF ECONOMIC STUDIES.

Kang Lili, Peng Fei and Zhu Yu ; Pan An ;. (2018). Harmony in Diversity: Can the One Belt One Road Initiative Promote China's Outward Foreign Direct Investment?. Sustainability, 10(9).

Kanwar S and Sperlich S. (2023). Direct foreign investment and intellectual property reform in the South. JOURNAL OF INTERNATIONAL DEVELOPMENT.

Karver, J., Shijaku, H., & Ungerer, C. (2022). Nudging in the time of the Coronavirus: Evidence from an experimental tax trial in Albania at the onset of a global pandemic. Available at https://documents1.worldbank.org/curated/en/256481646672332016/pdf/Nudging-in-the-Time-of-the-Coronavirus-Evidence-from-an-Experimental-Tax-Trial-in-Albania-at-the-Onset-of-a-Global-Pandemic.pdf

Khan Adnan, Khwaja Asim and Olken Benjamin. (2016). Property Tax Experiment In Pakistan: Incentivising Tax Collection And Improving Performance. , pp.1-55. Available at: https://www.3ieimpact.org/sites/default/files/2019-01/ie45-pakistanpropertytax.pdf.

Kim YR, Todo Y and Shimamoto D ; Matous P ;. (2018). Are seminars on export promotion effective? Evidence from a randomised controlled trial. WORLD ECONOMY, 41(11), pp.2954-2982.

Kong Dongmin and Xiong Mengxu . (2021). Unintended Consequences of Tax Incentives on Export Product Quality: Evidence From a Natural Experiment in China. Review of International Economics, 29(4), pp.802-837.

Kong FJ and He LH . (2021). Impacts of supply-sided and demand-sided policies on innovation in green building technologies: A case study of China. JOURNAL OF CLEANER PRODUCTION, 294.

Kong QX, Chen AF and Shen CR ; Wong Z ;. (2021). Has the Belt and Road Initiative improved the quality of economic growth in China's cities?. INTERNATIONAL REVIEW OF ECONOMICS & FINANCE, 76, pp.870-883.

Krivko M. (2019). Tax revenues from agricultural sector after Russian import ban: Evidence from Russian regions. Agrarian Perspectives XXVII: Business scale in relation to economics, pp. 107-113.

Kumar Roy, Chandan and Xiaoling Huang ;. (2020). Effects of Paperless Trade Policy and Aid for Trade on Export Performance: Evidence from SASEC And CAREC Countries. Asian Development Policy Review, 8(1), pp.61-74.

Lee Wonkyung, Ma Hong and Xu Yuan ;. (2021). Export Tax Rebate and the Margins of Exports: Product-Level Evidence from a Quasi-Natural Experiment. International Tax and Public Finance, 28(2), pp.386-404.

Lee, J.N., Morduch, J., Ravindran, S., & Shonchoy, A.S. (2022). Narrowing the gender gap in mobile banking. Journal of Economic Behavior & Oerganization, 193, pp. 276-293.

Li WF, Pittman JA and Wang ZT ;. (2019). The Determinants and Consequences of Tax Audits: Some Evidence from China. JOURNAL OF THE AMERICAN TAXATION ASSOCIATION, 41(1), pp.91-122.

Li Jianjun, Wang Xuan and Wu Yaping ;. (2020). Can Government Improve Tax Compliance by Adopting Advanced Information Technology? Evidence from the Golden Tax Project III in China. Economic Modelling, 93, pp.384-397.

Li SR, Su J and Liu Y ; Lepech MD ; Wang J ;. (2021). How "Belt and Road" initiative implementation has influenced R&D outcomes of Chinese enterprises: asset-exploitation or knowledge transfer?. R & D MANAGEMENT, 51(3), pp.273-292.

Li HY, Yang MJ and Sun YQ ; Chen JW ;. (2022). The impact of relaxing technology export regulations on corporate innovation. FINANCE RESEARCH LETTERS, 50.

Li WF, Li DH and Yang SJ ;. (2022). The impact of internet penetration on venture capital investments: Evidence from a quasi-natural experiment. JOURNAL OF CORPORATE FINANCE, 76.

Li X, Xu Q and Wang HC. (2022). Environmental effects of the establishment of pilot free trade zones: evidence from Chinese resource-based enterprises. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH.

Lin T, Du MY and Ren SY ;. (2022). How do green bonds affect green technology innovation? Firm evidence from China. GREEN FINANCE, 4(4), pp.492-511.

Liu Q and Qiu LD . (2016). Intermediate input imports and innovations: Evidence from Chinese firms' patent filings. JOURNAL OF INTERNATIONAL ECONOMICS, 103, pp.166-183.

Liu SS, Ji MM and Wang HJ ;. (2021). Decentralization and firm innovation: Evidence from a natural experiment in China. ECONOMIC MODELLING, 94, pp.501-512.

Liu Q, Lu RS and Lu Y ; Luong TA ;. (2021). Import competition and firm innovation: Evidence from China. JOURNAL OF DEVELOPMENT ECONOMICS, 151.

Liu S, Xu RX and Chen XY ;. (2021). Does green credit affect the green innovation performance of high-polluting and energy-intensive enterprises? Evidence from a quasi-natural experiment. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, 28(46), pp.65265-65277.

Liu YH, Lei J and Zhang YH ;. (2021). A Study on the Sustainable Relationship among the Green Finance, Environment Regulation and Green-Total-Factor Productivity in China. SUSTAINABILITY, 13(21).

Liu FS, Fan YQ and Yang SY ;. (2022). Environmental benefits of innovation policy: China's national independent innovation demonstration zone policy and haze control. JOURNAL OF ENVIRONMENTAL MANAGEMENT, 317.

Liu X, Zhang J and Liu TH ; Zhang XJ ;. (2022). Can the Special Economic Zones Promote the Green Technology Innovation of Enterprises? An Evidence From China. FRONTIERS IN ENVIRONMENTAL SCIENCE, 10.

Liu GQ, Zhang LY and Xie ZQ ;. (2022). Environmental taxes and corporate cash holdings: Evidence from China. PACIFIC-BASIN FINANCE JOURNAL, 76.

Liu TF, Li ZY and Zhang C ; Xia Q ;. (2022). How Comprehensive Innovation Reform Pilot Improve Urban Green Innovation Efficiency?-Evidence from China. SUSTAINABILITY, 14(8).

Lopez-Luzuriaga Andrea and Scartascini Carlos. (2019). Compliance Spillovers Across Taxes: the Role of Penalties and Detection. Journal of Economic Behavior & Organization, 164, pp.518-534.

Lu Y, Tao ZG and Zhang Y ;. (2018). How do exporters adjust export product scope and product mix to react to antidumping?. CHINA ECONOMIC REVIEW, 51, pp.20-41.

Lu Chaonan, Duan Litao and Peng Geng ; Lv Benfu ;. (2020). The Promotion Effect of the Belt and Road Initiative on China's Foreign Direct Investment: An Empirical Analysis Based on Firm Level. Asian Economic and Financial Review, 10(11), pp.1220-1231.

Lu Y, Gu W and Zeng K. (2021). Does the Belt and Road Initiative Promote Bilateral Political Relations?. CHINA & WORLD ECONOMY, 29(5), pp.57-83.

Lu, Y., Tao, Z., & Zhu, L. (2017). Identifying FDI spillovers. JOURNAL OF INTERNATIONAL ECONOMICS, 107, pp. 75-90.

Lu N, Wu JH and Liu ZM ;. (2022). How Does Green Finance Reform Affect Enterprise Green Technology Innovation? Evidence from China. SUSTAINABILITY, 14(16).

Lu YC, Gao YQ and Zhang Y ; Wang JR ;. (2022). Can the green finance policy force the green transformation of high-polluting enterprises? A quasi-natural experiment based on "Green Credit Guidelines". ENERGY ECONOMICS, 114.

Lu MT, Luo Q and Feng DW. (2023). Ecological innovation effect of broadband network infrastructure: Evidence from China. MANAGERIAL AND DECISION ECONOMICS.

Luo Zhi, Wang Chen and Zhang Xun ;. (2018). Does Cancellation of Preferential Tax Policy Reduce Foreign Direct Investment Inflows?. China & World Economy, 26(6), pp.97-115.

Luo Changyuan, Chai Qingyuan and Chen Huiyao ;. (2019). "Going global" and FDI inflows in China: "One Belt & One Road" initiative as a quasi-natural experiment. The World Economy, 42(6), pp.1654-1672.

Luo CY, Luo Q and Zeng S ;. (2022). Bilateral tax agreement and FDI inflows: Evidence from Hong Kong investment in the Mainland China. CHINA ECONOMIC REVIEW, 73.

Ma Guangrong and Mao Jie. (2018). Fiscal Decentralisation and Local Economic Growth: Evidence from a Fiscal Reform in China. Fiscal Studies, 39(1), pp.159-187.

Ma H, Ning JX and Xu MZ ;. (2021). An eye for an eye? The trade and price effects of China's retaliatory tariffs on US exports*. CHINA ECONOMIC REVIEW, 69.

Ma SN. (2022). Growth effects of economic integration: New evidence from the Belt and Road Initiative. ECONOMIC ANALYSIS AND POLICY, 73, pp.753-767.

Mao Haiou, Liu Guanchun and Zhang Chengsi ; Muhammad Atif ; Rao ;. (2018). Does Belt and Road Initiative Hurt Node Countries? A Study from Export Perspective. Emerging Markets Finance and Trade, 55(7), pp.1472-1485.

Mascagni Giulia, Nell Christopher and Monkam Nara ;. (2017). One Size Does Not Fit All: A Field Experiment on the Drivers of Tax Compliance and Delivery Methods in Rwanda. SSRN Electronic Journal.

Mascagni G, Mengistu AT and Woldeyes FB ;. (2021). Can ICTs increase tax compliance? Evidence on taxpayer responses to technological innovation in Ethiopia *. JOURNAL OF ECONOMIC BEHAVIOR & ORGANIZATION, 189, pp.172-193.

Mascagni G and Nell C. (2022). Tax Compliance in Rwanda: Evidence from a Message Field Experiment. ECONOMIC DEVELOPMENT AND CULTURAL CHANGE, 70(2), pp.587-623.

Mayda Anna Maria and Steinberg Chad. (2009). Do South-South Trade Agreements Increase Trade? Commodity-Level Evidence From Comesa. Canadian Journal of Economics, 42(4), pp.1361-1389.

Mogollon M, Ortega D and Scartascini C ;. (2021). Who's calling? The effect of phone calls and personal interaction on tax compliance. INTERNATIONAL TAX AND PUBLIC FINANCE, 28(6), pp.1302-1328.

Mohebi Mehdi and Mirshojaee Fakhri. (2020). Microdata Analysis of the Consequences of Free Trade Port Policy: The Case of Iran Free Zones. Applied Economics, 52(21), pp.2250-2260.

Monge-Gonzalez, R., Rodriguez-Alvarez, J.A., Leiva, J.C. An impact Evaluation of a fund to Finance innovation in SMEs. ACADEMIA REVISTA LATINOAMERICANA DE ADMINISTRACION, 29 (1).

Moyo B, Nchake M and Chiripanhura B ;. (2018). An evaluation of the US African Growth and Opportunity Act (AGOA) trade arrangement with Sub-Saharan African countries. PSL QUARTERLY REVIEW, 71(287), pp.389-418.

Naito H, Ismailov A and Kimaro AB ;. (2021). The effect of mobile money on borrowing and saving: Evidence from Tanzania. WORLD DEVELOPMENT PERSPECTIVES, 23.

Najy Behassine, David Mckenzie and Victor Pouliquen ; Massimiliano Santini ;. (2018). Does Inducing Informal Firms To Formalize Make Sense? Experimental Evidence From Benin. Journal of Public Economics, 157, pp.1-14.

Nie Huihua, Fang Mingyue and Li Tao ;. (2010). China's Value-Added Tax Teform, Firm Behavior And Performance. Frontiers of Economics in China, 5(3), pp.445-463.

Niu G, Jin XS and Wang Q ; Zhou Y ;. (2022). Broadband infrastructure and digital financial inclusion in rural China. CHINA ECONOMIC REVIEW, 76.

Nuruzzaman N, Gaur A and Sambharya RB ;. (2022). WTO accession and firm exports in developing economies. JOURNAL OF INTERNATIONAL BUSINESS POLICY, 5(4), pp.444-466.

Ofei Edmund Okraku. (2017). Impact of PTA on Trade Margins of LDCs in Sub- Saharan Africa: Evidence From the EBA. : Available at: https://econpapers.repec.org/paper/pramprapa/86976.htm.

Pang Y, Zhang FY and Wang Q; Wang L ; Wang CY. (2022). High- and new-technology enterprise certification, enterprise innovation ability and export product quality. TECHNOLOGY ANALYSIS & STRATEGIC MANAGEMENT.

Pham Anh. (2020). Effects of Temporary Corporate Income Tax Cuts: Evidence from Vietnam. Journal of Development Economics, 146.

Qi Y, Shao S and Tian ZH ; Xu Y ; Yin J ;. (2022). Environmental consequences of fair competition: Evidence from China's corporate income tax merger policy. ECOLOGICAL ECONOMICS, 195.

Qian XL, Sun MH and Pan MJ; Zou WY; Li GX. (2023). Intellectual property rights policy and foreign direct investment: A quasi-natural experiment from China. MANAGERIAL AND DECISION ECONOMICS.

Qiu LY. (2023). Does Internet Infrastructure Construction Improve Corporate Green Innovation? Evidence from China. SUSTAINABILITY, 15(1).

Qu Qiuying. (2019). Essays on Bank Lending, Industrial Policy, and Firm Performance. : Available at: https://academiccommons.columbia.edu/doi/10.7916/d8-xfe5-q165.

Quan XF, Xiao HJ and Ji Q ; Zhang JK ;. (2021). Can innovative knowledge management platforms lead to corporate innovation? Evidence from academician workstations in China. JOURNAL OF KNOWLEDGE MANAGEMENT, 25(1), pp.117-135.

Ritzel Christian, Kohler Andreas and Mann Stefan ;. (2017). Integrating Developing Countries Into the World Economy: A Tunisian Case Study. International Journal of Development Issues, 16(3), pp.300-316.

Ritzel C and Kohler A. (2017). Protectionism, how stupid is this? The causal effect of free trade for the world's poorest countries: Evidence from a quasi-experiment in Switzerland. JOURNAL OF POLICY MODELING, 39(6), pp.1007-1018.

Sandkamp A. (2020). The trade effects of antidumping duties: Evidence from the 2004 EU enlargement. JOURNAL OF INTERNATIONAL ECONOMICS, 123.

Santeramo FG, Guerrieri V and Lamonaca E ;. (2019). On the Evolution of Trade and Sanitary and Phytosanitary Standards: The Role of Trade Agreements. AGRICULTURE-BASEL, 9(1).

Saravade V, Chen XX and Weber O; Song XZ. (2022). Impact of regulatory policies on green bond issuances in China: policy lessons from a top-down approach. CLIMATE POLICY.

Sarr Babacar. (2016). Assessing Revenue Authority Performance In Developing Countries: A Synthetic Control Approach. International Journal of Public Administration, 39(2), pp.146-156.

Sequeira S. (2016). Corruption, Trade Costs, and Gains from Tariff Liberalization: Evidence from Southern Africa. AMERICAN ECONOMIC REVIEW, 106(10), pp.3029-3063.

Shabbir MN, Arshad MU and Alvi MA ; Iftikhar K ;. (2023). Impact of Trade Policy Uncertainty and Sustainable Development on Medical Innovation for Developed Countries: An Application of DID Approach. SUSTAINABILITY, 15(1).

Shao Yuchen and Xiao Chengrui. (2019). Corporate Tax Policy and Heterogeneous Firm Innovation: Evidence from a Developing Country. Journal of Comparative Economics, 47(2), pp.470-486.

Shao Xu. (2020). Chinese OFDI responses to the B&R initiative: Evidence from a quasi-natural experiment. China Economic Review, 61.

Small O and Brown L. (2020). Taxpayer Service Provision and Tax Compliance: Evidence for Large Taxpayers in Jamaica. PUBLIC FINANCE REVIEW, 48(2), pp.250-277.

Song, Y., Deng, R., Liu, R., & Peng, Q. (2020). Effects of special economic zones on FDI in emerging economies: Does institutional quality matter? SUSTAINABILITY, 12(20), 8409.

Sun Yiping, Li Xiangyi and Zhang Tengyuan ; Fu Jiawei ;. (2022). Does Trade Policy Uncertainty Exacerbate Environmental Pollution? – Evidence from Chinese Cities. International Journal of Environmental Research and Public Health, 19(4).

Sun XK and Zhang CY. (2023). Environmental protection tax and total factor productivity-Evidence from Chinese listed companies. FRONTIERS IN ENVIRONMENTAL SCIENCE, 10.

Tan XJ, Dong HM and Liu YS ; Su X ; Li ZX ;. (2022). Green bonds and corporate performance: A potential way to achieve green recovery. RENEWABLE ENERGY, 200, pp.59-68.

Tanaka K. (2021). The European Union's reform in rules of origin and international trade: Evidence from Cambodia. WORLD ECONOMY, 44(10), pp.3024-3049.

Tanaka K. (2022). The European Union's withdrawal of trade preferences for Cambodia. WORLD ECONOMY, 45(11), pp.3398-3419.

Tang LL, Jin C and Tian Y ; Li LC ;. (2020). Effects of Free Trade Agreements on Chinese Forestry Industry: A Context Analysis with the 21st-Century Maritime Silk Road Countries. JOURNAL OF COASTAL RESEARCH, pp.290-294.

Tang C, Xu YY and Hao Y ; Wu HT ; Xue Y ;. (2021). What is the role of telecommunications infrastructure construction in green technology innovation? A firm-level analysis for China. ENERGY ECONOMICS, 103.

Thornton John and Vasilakis Chrysovalantis. (2020). Do Fiscal Rules Reduce Government Borrowing Costs in Developing Countries?. International Journal of Finance & Economics, 25(4), pp.499-510.

Tian Wei and Yu Miaojie. (2017). Firm R&D, Processing Trade and Input Trade Liberalisation: Evidence From Chinese Firms. The World Economy, 40(2), pp.297-313.

Urpelainen J and Yoon S. (2017). Can product demonstrations create markets for sustainable energy technology? A randomized controlled trial in rural India. ENERGY POLICY, 109, pp.666-675.

Van Biesebroeck J, Yi YT and Zaurino E ;. (2022). Trade liberalisation and the extensive margin of differentiated goods: Evidence from China. WORLD ECONOMY, 45(9), pp.2724-2747.

Vieira, P.A., Pimenta, D.P., Da Cruz, A.F., & de Souza, E.M.S. (2019). Effects of the electronic invoice program on the increase of state collection. JOURNAL OF PUBLIC ADMINISTRATION, 53(2), pp. 481-491.

Xu, C., & Liu, H. (2022). Export tax rebates and enterprise export resilience in China. THE JOURNAL OF INTERNATIONAL TRADE & ECONOMIC DEVELOPMENT, 32(6).

Wan YF and Chen YN. (2022). China's Foreign Aid and Sustainable Growth of Recipient Countries: Mechanism and Evaluation. SUSTAINABILITY, 14(17).

Wang XJ, Zhang XQ and Meng D ; Kaiser HM ;. (2022). The Effects of Product Standards on Trade: Quasi-Experimental Evidence from China. AUSTRALIAN ECONOMIC REVIEW, 55(2), pp.232-249.

Wang TH, Song Z and Zhou J ; Sun HP ; Liu FQ ;. (2022). Low-Carbon Transition and Green Innovation: Evidence from Pilot Cities in China. SUSTAINABILITY, 14(12).

Wang ZY, Zhu NP and Wang JN ; Hu YY ; Nkana M;. (2022). The impact of environmental taxes on economic benefits and technology innovation input of heavily polluting industries in China. FRONTIERS IN ENVIRONMENTAL SCIENCE, 10.

Wang QX, Hu A and Tian ZH ;. (2022). Digital transformation and electricity consumption: Evidence from the Broadband China pilot policy. ENERGY ECONOMICS, 115.

Wang C and Zhang M. (2022). The road to change: Broadband China strategy and enterprise digitization. PLOS ONE, 17(5).

Wang WC and Zhang QY. (2022). Does Green Finance Reform Promote Corporate Green Innovation? Evidence from a Quasi-Natural Experiment. MATHEMATICAL PROBLEMS IN ENGINEERING, 2022, pp..

Waseem M. (2018). Taxes, informality and income shifting: Evidence from a recent Pakistani tax reform. JOURNAL OF PUBLIC ECONOMICS, 157, pp.41-77.

Weerasekera Harini. (2018). Tax Rates and Tax Evasion: An Empirical Investigation of Border Tax Evasion in Sri Lanka. South Asia Economic Journal, 19(2), pp.229-250.

Weigel JL. (2020). The participation dividend of taxation: How citizens in Congo engage more with the state when it tries to tax them. Quarterly Journal of Economics, 135 (4), pp. 1849-1903

Weinberger Ariel, Xuefeng Qian and Yasar Mahmut ;. (2021). Export Tax Rebates and Resource Misallocation: Evidence From a Large Developing Country. Canadian Journal of Economics/Revue canadienne d'économique, 54(4), pp.1562-1608.

Wen HW, Liang WT and Lee CC ;. (2022). Urban broadband infrastructure and green total-factor energy efficiency in China. UTILITIES POLICY, 79.

Wu SB, Lu Y and Lv XF ;. (2021). Does value-added tax reform boost firms' domestic value added in exports? Evidence from China. REVIEW OF INTERNATIONAL ECONOMICS, 29(5), pp.1275-1299.

Xin PZ, Zhao M and Bai Y ;. (2022). Does the Belt and Road Initiative Promote Green Innovation Quality? Evidence from Chinese Cities. SUSTAINABILITY, 14(10).

Xiong XJ, Masron TA and Gondo TW ;. (2023). Can the green credit policy stimulate green innovation of heavily polluting enterprises in China?. FRONTIERS IN ENVIRONMENTAL SCIENCE, 10.

Xu XH. Does green finance promote green innovation? Evidence from China. (2023). ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH.

Yang G. (2022). Can the green credit policy enhance firm export quality? Evidence from China based on the DID model. FRONTIERS IN ENVIRONMENTAL SCIENCE, 10.

Yang LM. (2022). Country-by-country reporting and corporate tax avoidance: evidence from China. ECONOMIC RESEARCH-EKONOMSKA ISTRAZIVANJA

Yang SY, Ding DD and Sun CR ;. (2022). Does Innovative City Policy Improve Green Total Factor Energy Efficiency? Evidence from China. SUSTAINABILITY, 14(19).

Yu Linhui, Zhao Dan and Niu Haixia ; Lu Futao ;. (2020). Does the Belt and Road Initiative Expand China's Export Potential to Countries Along the Belt and Road?. China Economic Review, 60.

Zhang Yan. (2017). Impact Of Latin-American And Caribbean Antidumping Measures On Chinese Exports. , pp.1-17. Available at: https://publications.iadb.org/handle/11319/8163.

Zhang, B., Dong, W., Yao, J. (2022). How does digital transformation of city governance affect environmental pollution: A natural experiment from the pilot policy of "national information city for public service" in China. SUSTAINABILITY, 14(21), 14158.

Zhang L, Cui L and Li SL ; Lu JY ;. (2018). Who rides the tide of regionalization: Examining the effect of the China-ASEAN Free Trade Area on the exports of Chinese firms. INTERNATIONAL BUSINESS REVIEW, 27(3), pp.501-513.

Zhang M and Huang M. (2022). Study on the impact of informal environmental regulation on substantive green innovation in China: evidence from PITI disclosure. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH.

Zhang Xing, Tantardini Michele and Kim Younhee ; de Lancer Julnes Patria;. (2021). Is Performance Management Reform Living up to its Expectations? An Analysis of Public Management Reform in China's Guangdong Province. Public Performance & Management Review, 44(1), pp.81-107.

Zhang T, Fu QY and Zhu CH ;. (2022). Trade liberalization, credit constraints, and export quality upgrading. EMPIRICAL ECONOMICS, 63(1), pp.499-524.

Zhang SL, Wu ZH and He YA; Hao Y. (2022). How does the green credit policy affect the technological innovation of enterprises? Evidence from China. ENERGY ECONOMICS, 113.

Zhang QN, Huang XW and Xu Y; Bhuiyan MA; Liu P ;. (2022). New energy demonstration city pilot and green energy consumption: Evidence from China. ENERGY REPORTS, 8, pp.7735-7750.

Zhang C, Zou CF and Luo WB ; Liao LM ;. (2022). Effect of environmental tax reform on corporate green technology innovation. FRONTIERS IN ENVIRONMENTAL SCIENCE, 10.

Zhang QC, Yang MZ and Lv SS ;. (2022). Corporate Digital Transformation and Green Innovation: A Quasi-Natural Experiment from Integration of Informatization and Industrialization in China. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 19(20).

Zhang JJ, Yang G and Ding XH; Qin J. (2022). Can green bonds empower green technology innovation of enterprises?. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH.

Zhang YB and Li X . (2022). The Impact of the Green Finance Reform and Innovation Pilot Zone on the Green Innovation-Evidence from China. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 19(12).

Zhong XY, Liu GH and Chen P ; Ke KL ; Xie RH ;. (2022). The Impact of Internet Development on Urban Eco-Efficiency-A Quasi-Natural Experiment of "Broadband China" Pilot Policy. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 19(3).

Zhou Dinggen, Yang Jingjing and Lai Mingyong ;. (2019). Input Trade Liberalization and the Export Duration of Products: Evidence From China. China & World Economy, 27(6), pp.1-25.

Zhou KX, Kumar S and Lu FT, Fang QY ; Yu LH ;. (2022). Has the Belt and Road Initiative Improved the Quality of Food Imported by Chinese Enterprises?. CHINA & WORLD ECONOMY, 30(2), pp.60-83.

Zhou FX, Wen HW and Lee CC. (2022). Broadband infrastructure and export growth. TELECOMMUNICATIONS POLICY, 46(5).

Zhu XD, He CF and Gu ZT. (2021). Benefit from local or destination? The export expansion of Chinese photovoltaic industry under trade protection. ENERGY ECONOMICS, 104.

Zhu HG, Chen ZH and Zhang SP ; Zhao WC ;. (2022). The Role of Government Innovation Support in the Process of Urban Green Sustainable Development: A Spatial Difference-in-Difference Analysis Based on China's Innovative City Pilot Policy. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 19(13).

Zou WY and Pan MJ. (2023). Does the construction of network infrastructure reduce environmental pollution? Evidence from a quasi-natural experiment in "Broadband China". ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH.

Zhou, K., Yu, L., Jiang, X., & Kumar, S. (2022). The impact of regional trade policy uncertainty on the productivity of Chinese export enterprises: The case of China-ASEAN Free Trade Area. PACIFIC ECONOMIC REVIEW

9.2 Included Performance and Process Evaluations

Alonso, A. C. & Wachirapuwadon, S. (2019). Overcoming policy, market and technological barriers to support technical innovation and south-south technology transfer: The pilot case of ethanol production from cassava. UNIDO Independent Evaluation Division. https://www.unido.org/sites/default/files/files/2019-08/TE-100264_Thailand_Overcoming%20policy%20market%20_Ethanol%20production.pdf

Asian Development Bank (ADB) Independent Evaluation Department (IED). (2018). Bangladesh: Chittagong Port Trade Facilitation Project Performance evaluation report. ADB. https://www.oecd.org/derec/adb/adb-2018-bangladesh-chittagong-port-trade-faciliation.pdf

Barkataky, R. (2021). Capacity building of the MSMEs in northeast India for export competitiveness: End term evaluation – May 2021. UNDP. https://erc.undp.org/evaluation/evaluations/detail/9699

Birsan, M. (2018). Evaluation of the UNECE project: "Public-Private Partnerships (PPP) Initiative: PPP Toolkit and International PPP Centre of Excellence." United Nations Economic Commission for Europe (UNECE). http://www.unece.org/fileadmin/DAM/OPEN_UNECE/03_Evaluation_and_Audit/Evaluation_Reports-with_SPs/04-ECI/Evaluation_Report_-_UNECE_PPP_Toolkit_and_ICoE_-_final_October2018.pdf

Bodnár, F. & van Poelje, R. (2019). Strategies for partners: Balancing complementarity and autonomy. Evaluation of the functioning of strategic partnerships between the Ministry of Foreign Affairs and civil society organisations. IOB. https://english.iob-evaluatie.nl/publications/publications/2019/08/01/431-%E2%80%93-iob-%E2%80%93-evaluation-of-the-functioning-of-strategic-partnerships-between-the-ministry-of-foreign-affairs-and-civil-society-organisations-%E2%80%93-summary-with-recommendations-and-findings-%E2%80%93-strategies-for-partners-balancing-complementarity-and-autonomy

Brunagel, M., Castella, C., Jérémie None, J., Piaggesi, D., Caroline Cleppert, C., Cracco, J., & Agena, M. (2020). Évaluation 'Digital For Development' (D4D) : Jusqu'où

libérer le potentiel du numérique pour/ par la Coopération belge au Développement? SPF Affaires étrangères, Commerce extérieur et Coopération au Développement. https://www.oecd.org/derec/belgium/Digital%20for%20Development%20rapport%20FR.pdf

Caprile, A., & Prasitpianchai, S. (2018). Terminal evaluation of the Global Environment Facility/UN Environment Project: Low carbon-energy Islands: Accelerating the use of energy efficient and renewable energy technologies in Tuvalu, Niue and Nauru. Evaluation Office of UN Environment. https://wedocs.unep.org/handle/20.500.11822/35040

Caraseni, G. (2021). Final evaluation of knowledge management and capacity building in Russia-UNDP partnership, project, phase II (2018-2021). UNDP. https://erc.undp.org/evaluation/evaluations/detail/13376

Chauvet, L., Dendura, J., Ferry, M., Raffinot, M., & Rosellini, C. (2019). Évaluation de la contribution française à l'amélioration de la gouvernance financière dans les pays bénéficiaires de l'aide publique au développement (2006-2016). Ministère de l'Europe et des Affaires Étrangères. https://www.oecd.org/derec/france/Évaluation%20de%20la%20contribution%20française%20à%20l'amélioration%20de%20la%20gouvernance%20financière%20dans%20les%20pays%20bénéficiaires%20de%20l'aide%20publique%20au%20développement%20(2006-2016).pdf

Christensen, J.P. (2022). Terminal evaluation of Sustainable Investment Promotion (SIP) Project. UNDP. https://erc.undp.org/evaluation/evaluations/detail/13874

Daoust, A., (2019). Independent project evaluation: Strengthening capacities of policy-makers to assess implications of non-tariff measures in international trade and formulate appropriate policy responses. United Nations Conference on Trade and Development. https://unctad.org/system/files/official-document/osginf2019d4_en.pdf

DaPonte, B.O (2022). Final evaluation of the UN Development Account, 10th Tranche Project 1617A, the Programme on Statistics and Data.

Demtschück, E. (2019). Central project evaluation: Support of economic cooperation in subregional initiatives in Asia. Deutsche Gesellschaft für Internationale

Zusammenarbeit (GIZ). https://www.oecd.org/derec/germany/giz2019-0144en-centralprojectevaluation-economic%20cooperation-asia.pdf

Divvaakar, S. V. (2019). Development Account Project 1415 M: Building capacities of selected Least Developed Countries to upgrade and diversify their fish exports. United Nations Conference on Trade and Development. https://unctad.org/system/files/official-document/osginf2019d6_en.pdf

Econotec. (2018). Évaluation à mi-parcours du Projet d'appui à la mobilisation des recettes fiscales d'Haïti (PAMRF). Affaires Mondiales Canada.

Engelhardt, A. (2018). Independent evaluation of the Development Account Project: Strengthening the capacity of developing country policy makers, investment promotion officials and academia in two priority sectors to attract investment for sustainable and inclusive development (DA Project 1415R). United Nations Conference on Trade and Development. https://unctad.org/system/files/official-document/osginf2020d1_en.pdf

Engelhardt, A., Matsuda, A., Kiedrowski, J. M., & Monier, S. L. R. (2023). Independent evaluation of the programme for country partnership (PCP) in Peru (2016-2022). UNIDO Independent Evaluation Unit. https://www.unido.org/sites/default/files/files/2022-10/Evaluation%20ind%C3%A9pendante_PCP-SEN_FINAL_221020.pdf

Engelsman, G., Plaisier, N., & Snoeijenbos, S. (2019). Independent thematic evaluation of SECO's business line: Greater international competitiveness of SMEs and facilitated market access. Economic Cooperation and Development Division at the State Secretariat for Economic Affairs (SECO). https://www.oecd.org/derec/switzerland/Evaluation%20Report%20WEHU%20SME%20International%20Competitiveness%20and%20Market%20Access%202019.pdf

European Bank for Reconstruction and Development (EBRD) Evaluation Department. (2020). EvD Evaluation of the Legal Transition Programme. EBRD. https://www.oecd.org/derec/ebrd/2020-ltp.pdf

Finlayson, B. (2021). EBRD trade facilitation programme. European Bank for Reconstruction and Development (EBRD) Evaluation Department.

https://www.oecd.org/derec/ebrd/SS20-154%20Trade%20Facilitation%20Programme.pdf

Flor, A. (2021). DICT-UNDP Free Wi-fi for All Project Mid-Term Evaluation. UNDP. https://erc.undp.org/evaluation/evaluations/detail/12579

Genesis Analytics. (2018). Mid-Term Evaluation of Mobile Money for the Poor (MM4P). UNCDF. https://erc.undp.org/evaluation/evaluations/detail/10018

Harper, E. (2020). Independent evaluation of the Development Account Project 1617J "Informal cross-border trade for empowerment of women, economic development and regional integration in Eastern and Southern Africa." United Nations Conference on Trade and Development. https://unctad.org/system/files/official-document/osginf2020d2_en.pdf

International Trade Centre (ITC) Independent Evaluation Unit. (2018). Evaluation of the Non-tariff Measures Programme. ITC. https://intracen.org/sites/default/files/inline-files/Evaluation%20NTM%20Vol1_1.pdf

ITC Independent Evaluation Unit. (2019). Evaluation of the ITC Trade Facilitation Programme. ITC. https://intracen.org/sites/default/files/inline-files/TFP%20Evaluation%20%28report%29.pdf

ITC Independent Evaluation Unit. (2022). Midterm evaluation of the ITC MENATEX Programme. ITC. Ihttps://intracen.org/sites/default/files/inline-files/Midterm%20Evaluation%20ITC%20MENATEX%20Programme.pdf

Isidor-Serrano, F., & Pavel, B. (2022). Central project evaluation: Global Business Network (GBN) Project number 2016.1004.7. GIZ. https://www.oecd.org/derec/germany/giz2022-0458en-projectevaluation-global-business-network.pdf

Jackson, E. T., & Harji, K. (2020). Shift: Report of the formative mid-term evaluation of Convergence Blended Finance Inc. Global Affairs Canada and Convergence Blended Finance.

Jain, V. K., & Tirfi, A.G. (2021). Terminal evaluation of UNDP/GEF project: Promoting sustainable rural energy technologies (RETs) for household and productive uses. UNDP. https://erc.undp.org/evaluation/evaluations/detail/12945

Jalil, M. M. (2021). South-South cooperation for science, technology, and innovation policies in the Asia-Pacific region. United Nations Economic and Social Commission for Asia and the Pacific. https://www.unescap.org/sites/default/d8files/2022-01/TIID-SST-STI-Evaluation-Final-Formatted-with-MR.pdf

Kaplan, M., Busemann, D., & Wirtgen, K. (2020). Trilateral Cooperation in German Development Cooperation. German Institute for Development Evaluation (DEval). https://www.oecd.org/derec/germany/DEval-2020-Trilateral-cooperation.pdf

Khan, M. A. & Zhou, T. (2018). Independent Terminal Evaluation of China South-South Development Center Project. United Nations Office for South-South Cooperation. https://www.oecd.org/derec/ebrd/2020-Itp.pdf

Leutgeb, A. (2022). Ex-post Evaluation: Strengthening the Management of Remittances for the Sustainable Development of Cameroon. IOM. https://evaluation.iom.int/sites/g/files/tmzbdl151/files/docs/resources/eval%20rep_CE.0389_Remittances_Cameroon_final_Abderrahim%20EL%20MOULAT.pdf

MacPherson, R., Eshetu B., White, S. & Benqlilou C. (2022). The Low Carbon Low Emission Clean Energy Technology Transfer (LCET) Programme. (2016). UNIDO Independent Evaluation Division. https://www.unido.org/sites/default/files/files/2022-08/EvalRep_GLO-120601_LCET-TE-2021.pdf

Mager, J. & Vracic, A. (2019). Central Project Evaluation: Open Regional Funds for South-East Europe – Promotion of EU Integration through Regional Cooperation PN 2015.2056.8. GIZ. https://www.oecd.org/derec/germany/Central%20Project%20Evaluation_Open%20Regional%20Funds%20for%20South-East%20Europe–Promotion%20of%20EU%20Integration%20through%20Regional%20Cooperation.pdf

Ndung'u, I. (2019). Final evaluation of the Botswana Exporter Development Programme (BEDP): 2013-2017. Botswana Investment & Trade Centre. https://erc.undp.org/evaluation/evaluations/detail/10030

Novovic, T. (2021). Final evaluation of the project Serbia at Your Fingertips - Digital Transformation For Development. UNDP. https://erc.undp.org/evaluation/evaluations/detail/12681

Nuwakora, C. B., & Beyene, G. E. (2018). Promoting Sustainable Rural Energy Technologies (RETs) for Household and Productive Uses: Mid term review. UNDP. https://erc.undp.org/evaluation/evaluations/detail/9152

Orth, M., Birsan, M., & Gotz, G. (2018). The Future of Integrated Policy-Based Development Cooperation: Lessons from the Exit from General Budget Support in Malawi, Rwanda, Uganda and Zambia. German Institute for Development Evaluation. https://www.oecd.org/derec/germany/Future-Integrated-Policy-Based-Development-Cooperation.pdf

Orth, M., Habbel, V., Richter, J., & Roggemann, H. (2020). Structured Funds: A balancing act between financial sustainability and development impact. German Institute for Development Evaluation. https://www.oecd.org/derec/germany/DEval_Report_2020_Structured_Funds_web.pdf

Palaia, A., Spigel, L., Cunningham, M., Yang, A., Hooks, T., & Ross, S. (2019). Saving lives together: A qualitative evaluation of the Saving Mothers, Giving Life public-private partnership. Global Health: Science and Practice, 7(1), S123-S138. https://pubmed.ncbi.nlm.nih.gov/30867213/

Panades-Estruch, L. (2021). Public-Private Partnerships in transport: a critical assessment of the Caribbean. Public Administration and Policy, 24(1), 61-75. https://www.emerald.com/insight/2517-679X.htm

Pérez, A. (2019). Independent Evaluation of the UNCTAD Project INT/0T/TFBI "Investment promotion partnerships for the development, marketing and facilitation of bankable SDG projects." United Nations Conference on Trade and Development. https://unctad.org/system/files/official-document/osginf2019d1_en.pdf

Prasada Rao, K. B. (2020). Terminal Evaluation of the UNEP/UNDP/GEF Project: Capacity Building Initiative for Transparency (CBIT) Global Coordination Platform (GCP) (2017-2019). United Nations Environment Programme Evaluation Office. https://wedocs.unep.org/handle/20.500.11822/35040

Rana, S. (2019). Mid Term Evaluation Report: Kiribati Trade Capacity Development and Institutional Strengthening Project. UNDP. https://erc.undp.org/evaluation/documents/detail/15513

Schwensen, C., Smed, L. S., Jansson, S., Karottki, R., Sacranie, A., Ström, S., Noppen, D. (2021). The Power Africa Project at Sida: Innovative investment mobilisation for fossil-free electrification. A Mid-Term Evaluation 2015-2019. Sida. https://pubmed.ncbi.nlm.nih.gov/30543754/

South-South Cooperation Research and Policy Centre (Articulação SUL). (2020). Evaluation of the trilateral South-South Cooperation Programme between the Government of Brazil & UNICEF. Articulação SUL. https://www.unicef.org/evaluation/reports#/detail/16043

Stritzke, S. (2018). 'Clean energy for all': the implementation of Scaling Solar in Zambia. World Journal of Science, Technology and Sustainable Development, 15(3), 214-225.

Thiessen, J., Bagoi, A., Homer, C., & Rumsey, M. (2018). Qualitative evaluation of a public-private partnership for reproductive health training in Papua New Guinea. Rural and Remote Health, 18(4), 1-10. https://pubmed.ncbi.nlm.nih.gov/30543754/

UNFPA Evaluation Office. (2020). Formative evaluation of UNFPA approach to South-South and triangular cooperation. UNFPA. https://www.unfpa.org/admin-resource/formative-evaluation-unfpa-approach-south-south-and-triangular-cooperation

UNIDO Independent Evaluation Division. (2020). Arab food safety initiative for trade facilitation (SAFE Initiative) "Enhancement of regional trade capacities in food through harmonized regional conformity assessment and food safety systems". UNIDO. https://www.unido.org/sites/default/files/files/2020-09/RAB-12054_SAFE_TE-2019_FINAL_NewNo.pdf

World Food Programme. (2021). Evaluation of the WFP South-South and Triangular Cooperation Policy: Centralized evaluation report – volume 1. Universalia. https://www.wfp.org/publications/evaluation-wfp-south-south-and-triangular-cooperation-policy

van Blarcom, B., Taran, S. & Stanytski, K. (2022). Summative evaluation of the Canada-Ukraine Trade and Investment Support Project (CUTIS). Policy and Management Consulting Group.

van Gerwen, F., Nguyen, H. T., Laaksonen, S., Tung, P. D., & Kontro, M. (2021). Evaluation on the Transition Process of Finnish-Vietnamese Cooperation in 2008–2020. Ministry for Foreign Affairs of Finland. https://um.fi/development-cooperation-evaluation-reports-comprehensive-evaluations

van Oijen L., Ndour, M. C., Guarnizo, J., & Monier, S. L. R. (2022). Evaluation independante: Programme de partenariat pays ONUDI - Senegal 2015-2021. UNIDO Independent Evaluation Division. https://www.unido.org/sites/default/files/files/2022-10/Evaluation%20ind%C3%A9pendante_PCP-SEN_FINAL_221020.pdf

van Oyen, L., & Mambreyan, V. (2019). Independent terminal evaluation. Armenia. Improving competitiveness of export-oriented industries in Armenia through modernization and market access – Phase II. UNIDO Independent Evaluation Office. https://www.unido.org/sites/default/files/files/2020-01/ARM-160113_Improving%20Competitiveness_TE-2019.pdf

World Bank. (2018a). Cambodia—Trade Facilitation and Competitiveness. Independent Evaluation Group, Project Performance Assessment Report 126763. Washington, DC: World Bank.

World Bank. (2018b). Cameroon, Chad, Central African Republic, São Tomé and Príncipe— Internet and Mobile Connectivity Central African BackBone Program (APL 1A and APL 2). Independent Evaluation Group, Project Performance Assessment Report 126034. Washington, DC: World Bank.

World Bank. (2018c). Mongolia—Renewable Energy for Rural Access Project. Independent Evaluation Group, Project Performance Assessment Report 127225. Washington, DC: World Bank.

World Bank. (2018d). Nicaragua—Offgrid Rural Electrification (PERZA) Project. Independent Evaluation Group, Project Performance Assessment Report 127696. Washington, DC: World Bank.

World Bank. (2019a). Grow With the Flow: An Independent Evaluation of the World Bank Group's Support to Facilitating Trade 2006–17. Independent Evaluation Group. Washington, DC: World Bank.

World Bank. (2019b). Jamaica—JAMAICA Economic Stabilization and Foundations for Growth Development Policy Loan (DPL). Independent Evaluation Group, Project Performance Assessment Report 140619. Washington, DC: World Bank.

World Bank. (2020). Croatia—Revenue Administration Modernization Project Independent Evaluation Group, Project Performance Assessment Report 149797. Washington, DC: World Bank.

World Bank. (2020b). Mongolia—Governance Assistance Project. Independent Evaluation Group, Project Performance Assessment Report 145083. Washington, DC: World Bank.

World Bank. (2020c). Pakistan—First Programmatic Fiscally Sustainable and Inclusive Growth Development Policy Credit. Independent Evaluation Group, Project Performance Assessment Report 149804. Washington, DC: World Bank.

World Bank. (2021a). Lao People's Democratic Republic—Nam Theun 2 Hydroelectric and Social and Environment Projects. Independent Evaluation Group, Project Performance Assessment Report 153963. Washington, DC: World Bank.

World Bank. (2021b). Liberia—Integrated Public Financial Management Reform Project. Independent Evaluation Group, Project Performance Assessment Report 153799. Washington, DC: World Bank.

World Bank. (2022). Kyrgyz Republic—The First and Second Development Policy Operations and Programmatic Governance and Competitiveness Development Policy Operation. Independent Evaluation Group, Project Performance Assessment Report 169251. World Bank. https://documents1.worldbank.org/curated/en/099632207202288774/pdf/IDU086b92c0d03f960479009d680d3797f3c505b.pdf

Young A. & Jaou, M. (2021). Support the Arab Accreditation Cooperation (ARAC) to be sustained, effective and internationally recognized as key driving force for regional trade integration. (2023). UNIDO Independent Evaluation Division.

https://www.unido.org/sites/default/files/files/2021-07/EvalRep_RAB-140261_ARAC_TE-2020.pdf

Zollinger, U., Dobinger, J. & Assefa, E. (2020). Independent Terminal Evaluation of the Programme for Country Partnership in Ethiopia (2015-2019). UNIDO. https://www.unido.org/sites/default/files/files/2020-05/PCP%20ETH%20Indep%20Eval%20Report_April%202020_F.pdf

9.3 Included Systematic Reviews

Alampay, E.A., & Moshi, G.C. (2018). Impact of mobile financial services in low- and lower-middle-income countries: A systematic review. *Information technologies & international development,* 14 (164-181).

Aron, J. (2019). Mobile money and the economy: A review of the evidence. *World Bank Research Observer,* 33(2): 135-188.

Balogh, J.M., & Mizik, T. (2021). Trade-climate nexus: A systematic review of the literature. *Economies,* 9(3).

Rahman, N.H., Ismail, S., & Ridzuan, A.R.. (2019). How does public debt affect economic growth? A systematic review. *Cogent Business and Management*, 6.

Sun, S.Z., MacIsaac, S., Duclos, B.C., & Lilly, M.B. (2019). The effects of trade liberalization on skills acquisition: A systematic review. *Journal of International Trade Law and Policy*, 18(2): 174-195.

Ugur, M., & Mitra, A. (2017). Technology adoption and employment in less developed countries: A mixed-methods systematic review. *World Development*, 96, 1-18.

Annex A: Research Questions

Exhibit A-1. Detailed Research Questions and Associated Methods

Research questions	Methods
Voluntary national review data analysis	
• What factors contribute to achieving SDG-17 objectives according to VNR data? • What themes do the VNR data uncover about progress toward the SDG-17 objectives?	• Text analysis of VNR data, including natural language processing and sentiment analysis
Positive deviance analysis	
• 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?	• 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.

Research questions	Methods
Evidence synthesis of impact evaluations	
• What is the available evidence on the impact of trade, finance, technology, systemic issues, and capacity building interventions on SDG-17 indicators?	• Narrative synthesis of experimental and quasi-experimental studies
• Which trade, finance, technology, systemic issue, and capacity building interventions are most effective in improving and accelerating SDG-17 indicators?	• Meta-analysis of experimental and quasi-experimental studies when more than three studies are available that combine the same interventions and outcomes
• What is the impact of trade policies, programs, and interventions on SDG-17 indicators (e.g., export values, export diversification, etc.)	• 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
• What is the impact of technology policies, programs, and interventions on SDG-17 indicators? (e.g., internet access, mobile banking access, etc.)	• Narrative synthesis to examine the role of partnerships, systemic issues, and capacity building in achieving SDG-17 indicators
• What is the impact of finance policies, programs, and interventions on SDG-17 indicators (e.g., tax revenue, foreign direct investment, etc.)	• Risk of bias assessment of experimental and quasi-experimental studies
• 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	• Triangulation of impact estimates with estimates of costs and cost-effectiveness
	• Triangulation of experimental and quasi-experimental studies with

Research questions	Methods
SDG-17 indicators?What is the impact of systemic issue policies, programs, and interventions (e.g., multi-stakeholder partnerships) on SDG-17 indicators?	evidence from performance and process evaluations
• 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,	

Research questions	Methods
finance, technology, systemic issue, and capacity building interventions?	

Evidence synthesis of performance and process evaluations

Research questions	Methods
• 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	• 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
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? • 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	
• 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)?	• 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

Table 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) Democratic Republic of Congo (SSA) Ethiopia (SSA) Rwanda (SSA) Togo (SSA) Haiti (Caribbean)	Community-based tax collection (e.g., by chiefs) for tax revenues[1] Tax reform for tax revenues, but value-added taxes will likely only generate more tax revenues in the long term[1] Tax incentive messages on tax revenues, though	Co-financing arrangements for rural technology diffusion	Tariff reductions[1]	National-level statistical trainings, advisory services, and tools for SDG reporting South-South and trilateral cooperation to access technical knowledge and resources South-South information sharing on capacity for census implementation

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)
	Nicaragua (Latin America) Chad (SSA) Central African Republic (SSA)	the effects depend on context and the implementation modality[1]			National-level statistical trainings, advisory services, and tools for SDG reporting
Middle-income	India (South Asia) Pakistan (South Asia) Myanmar (South-East Asia)	Incentives for tax collectors on tax revenues[1] Tax incentive messages on tax revenues[1] Green finance on Foreign Direct Investment[1]	Private-sector investments on internet access[1] Green finance on innovation[1] Broadband infrastructure expansion on green innovation[1]	Standardization of export requirements across countries on exports Simplification of trade rules on exports	South-South partnerships for understanding priorities, contexts, and constraints

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)
	Cameroon (SSA) Senegal (SSA) Cambodia (South-East Asia) China (East Asia) Uzbekistan (East Asia) Peru (Latin America) Brazil (Latin America)	Value-added taxes on government revenues[1] Trade liberalization on inward and outward foreign direct investment[1] Trade liberalization on debt sustainability	Broadband infrastructure expansion on technology diffusion[1] Broadband infrastructure expansion on digitization and digital financial inclusion[1]	Broadband infrastructure on export values[1] Trade agreements (e.g., Belt and Road initiative and China-ASEAN Free Trade Area, World Trade Organization) on exports[1] Belt and Road initiative on import quality[1] Cluster development	

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)
	Uruguay (Latin America) Colombia (Latin America) Dominican Republic (Caribbean) Egypt (Middle East & North Africa) Tunisia (Middle East & North Africa)			policies on export values[1] Trade liberalization (joining the Commonwealth of Independent States) and tariff reductions on export increases[1] Bilateral trade agreement on exports[1] Bilateral trade agreement on exports of preferential goods[1]	

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)
	Turkey (Europe and Central Asia)			Export promotion on export values though the effects remain small[1]	
High-income	United Arab Emirates (Middle East & North Africa) The Netherlands (Europe) Belgium (Europe) Multinational organizations (e.g., UNICEF, Global Business	Diversifying income tax sources on tax revenue			Serving as a neutral, 3rd party broker in trilateral partnerships. Use of horizontal cooperation principles for funding modalities, partnership design, and governance structures to increase partnership longevity and cooperation. In-depth knowledge, local presence, and

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)
	Network, the World Bank)				consideration of LMIC context on initiative efficiency and effectiveness. National-level statistical trainings, advisory services, and tools on SDG reporting.
Cross-cutting	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.				

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)
	Participatory planning and development for partner ownership. Ensuring relevance of initiative to partners' varying interests for engagement and ownership.				

1   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

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.

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).

Finally, AIR decided to include one historical donor country that provides Official Development Assistance (ODA) to low- and middle-income countries (LMICs) 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 LMIC 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

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
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

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 diffent 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-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/cites, 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.
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.
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 Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' gross national income (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 United States dollars) 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-	Finance

				development- indicators	

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 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)	UN 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-	Trade

| | | | | Development-Indicators | |

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	2000 – 2020	United Nations Sustainable	World Bank	https://sdgs.un.org/goals	Systemic issues

Evidence Synthesis on the Partnership Pillar of the SDGs

(a) public-private partnerships and (b) civil society partnerships.		Development Goals - United Nations (2022-07-07)			
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. Karlinsky, International Completeness of Death Registration 2015–2019 (2021)		https://github.com/akarlinsky/death_registration	Systemic issues

Annex H: Details on the Methodology

Impact evaluation screening methods

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

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., 2017; 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.[30]

Performance and process evaluation analysis methods

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

---

[30] Annex E presents the risk of bias assessment.

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.

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.[31]

Text Mining Analysis Tools

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.

Sentiment analysis: To understand each country's attitudes toward the different SDG-17 topics, we conducted a sentiment analysis of the VNR reports using three different Python packages (Vader[32], Bert[33], and TextBlob). VADER's 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.

---

[31] After finalizing the synthesis, AIR will apply GRADE-CERQual or another approach to assess the strength of each finding from the performance and process evaluations.

[32] Vader refers to Valence Aware Dictionary and sEntiment Reasoner.

[33] Bert refers to Bidirectional encoder representations from transformers.

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

Annex I: Details on the Characteristics of Included Evaluations

Characteristics of Included Impact Evaluations

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.

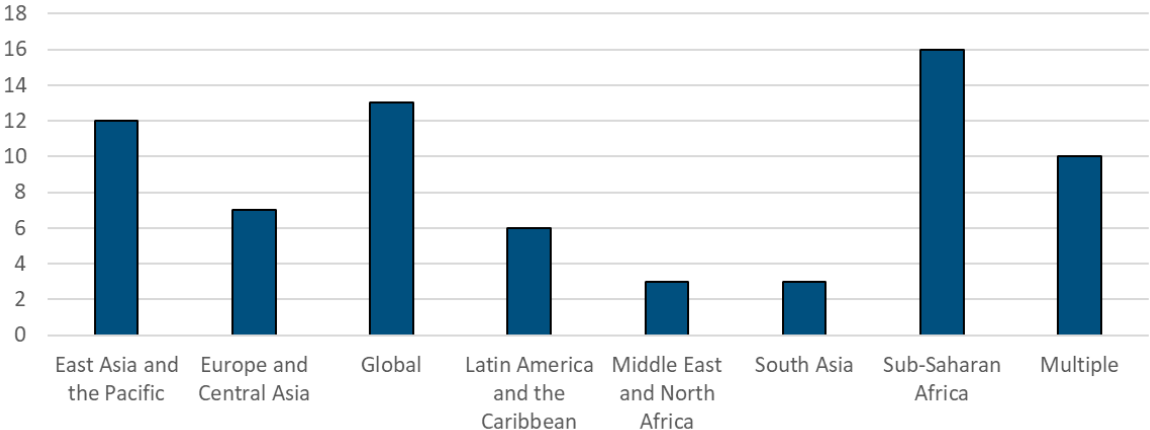### Exhibit I-1. Number of Included Impact Evaluations by SDG-17 Component
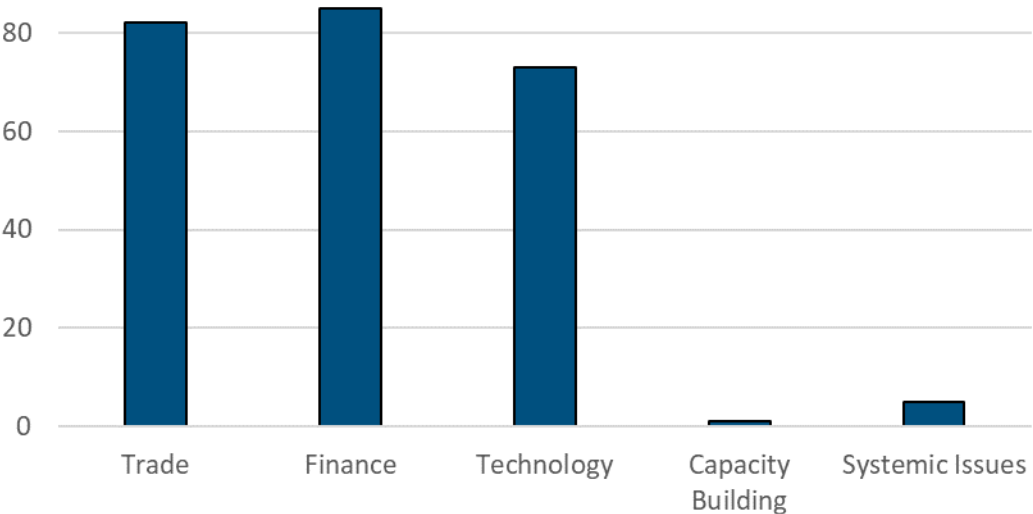
Note: The numbers in this figure include studies classified under more than one SDG-17 component.

Characteristics of Included Performance and Process Evaluations

We categorized the studies by the SDG 17-topic areas of focus (i.e., finance, technology, trade, systemic issues[34], and capacity building). Many initiatives (45) have
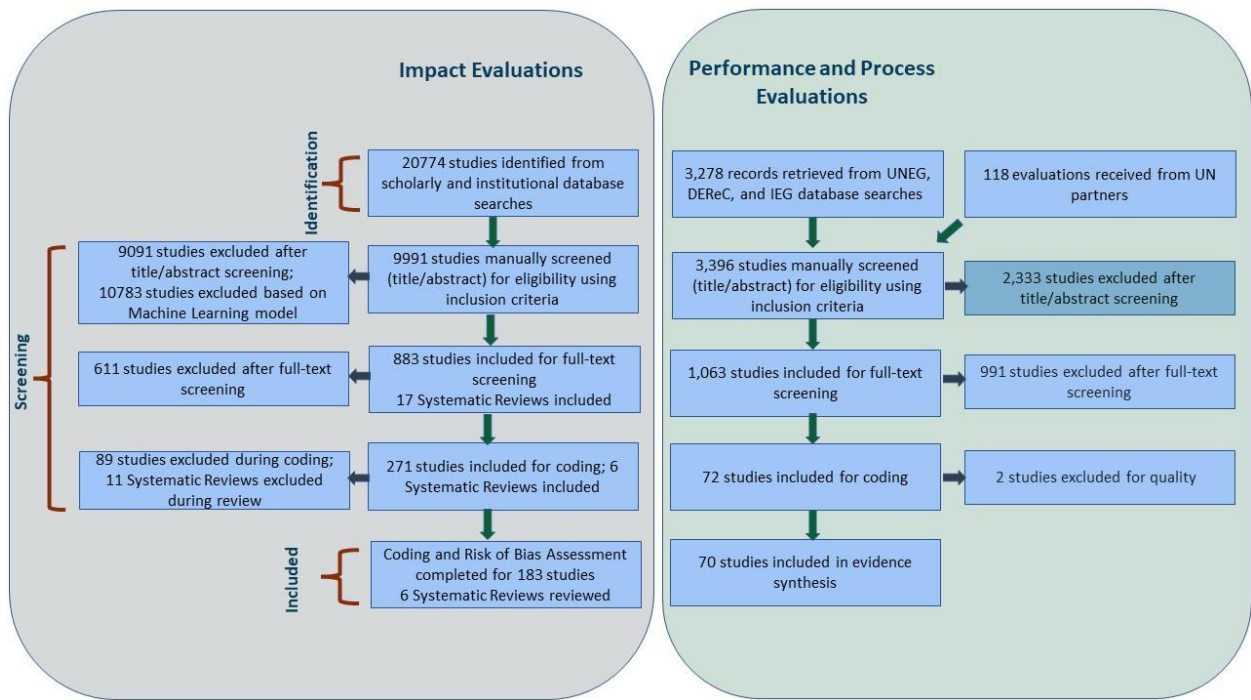
.

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

Impact Evaluations

Identification

20774 studies identified from scholarly and institutional database searches

Screening

9091 studies excluded after title/abstract screening; 10783 studies excluded based on Machine Learning model

9991 studies manually screened (title/abstract) for eligibility using inclusion criteria

611 studies excluded after full-text screening

883 studies included for full-text screening
17 Systematic Reviews included

89 studies excluded during coding; 11 Systematic Reviews excluded during review

271 studies included for coding; 6 Systematic Reviews included

Included

Coding and Risk of Bias Assessment completed for 183 studies
6 Systematic Reviews reviewed

Performance and Process Evaluations

3,278 records retrieved from UNEG, DEReC, and IEG database searches

118 evaluations received from UN partners

3,396 studies manually screened (title/abstract) for eligibility using inclusion criteria

2,333 studies excluded after title/abstract screening

1,063 studies included for full-text screening

991 studies excluded after full-text screening

72 studies included for coding

2 studies excluded for quality

70 studies included in evidence synthesis

Annex J: Machine Learning Methods

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.[35] 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 studies[36] 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.
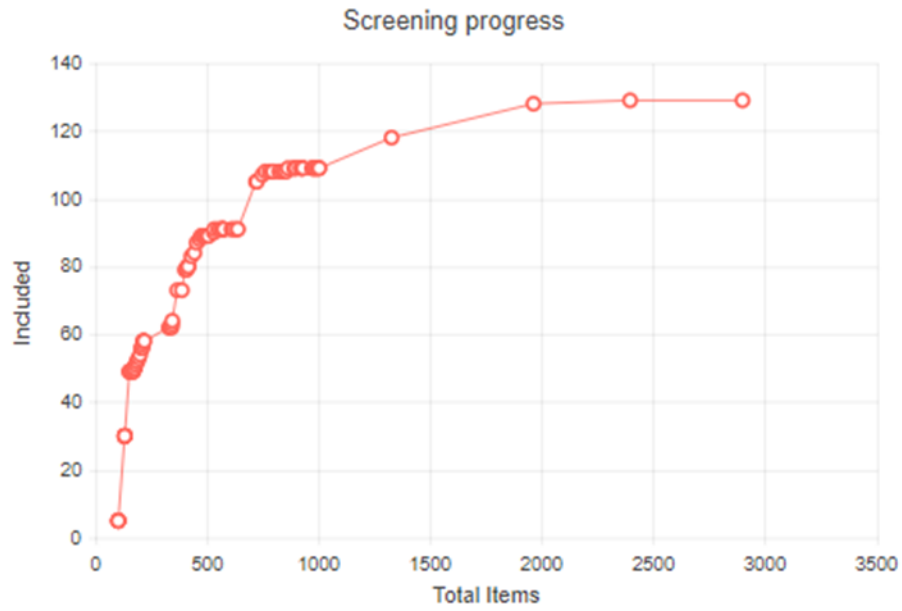
To build this classifier, EPPI Reviewer uses several underlying machine learning algorithms to detect patterns in studies' references as well as in their titles and abstracts. This pattern detection transcends mere searches for particular words and phrases by examining trigrams, context, sentiment, and 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.

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.

---

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

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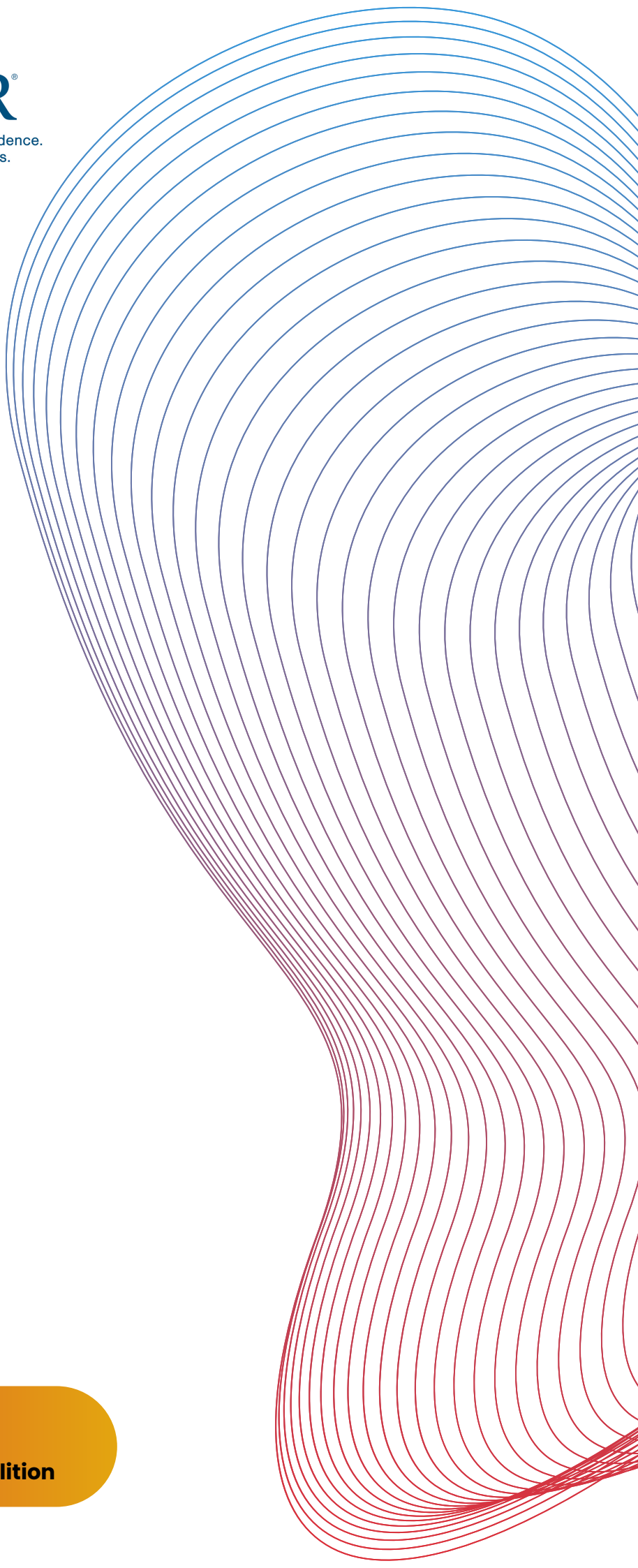

Screening progress

17 PARTNERSHIPS FOR THE GOALS