PROSPERITY *for* **COFFEE PRODUCERS** through SDG Coffee Plans

A **3-step methodology** to align investments toward *thriving, sustainable coffee economies.*

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DEVELOPMENT BANK OF LATIN AMERICA AND THE CARIBBEAN

WORLD COFFEE PRODUCERS FORUM

COLUMBIA CLIMATE SCHOOL
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The methodology to develop the Coffee SDG Plans that is outlined in this Handbook was first piloted in three regions: Huila (Colombia), Brunca (Costa Rica), and Cerrado Mineiro (Brazil). These simulations would not have been possible without the support of many local stakeholders, including coffee growers, local authorities, and local civil society organizations. In particular, we are grateful to the Colombian Coffee Federation (FNC, as per its acronym in Spanish); the Regional Office of the Colombian Coffee Federation in Huila; the Centro de Estudios Regionales, Cafeteros y Impresariale (CRECE, as per its acronym in Portuguese); The Coffee Institute of Costa Rica (ICAFE, as per its acronym in Spanish); and to the National Coffee Council in Brazil. They all have been instrumental in supporting our data collection, in connecting us to relevant stakeholders who provided invaluable insights, and in allowing us to fully understand the sustainable development challenges coffee producers face.

We also extend our gratitude to the team at Wise Responder Oxford - Jamie Coats, Christopher Albrigo, and Antonio Claret.

We very much welcome feedback on the ideas presented herein. This report is part of an ongoing and evolving analysis of how to achieve sustainable development in the coffee sector, and we look forward to continuing to build our analysis in partnership with producers, industry actors, and the many other stakeholders focused on closing the SDG gaps for all coffee growers globally.

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Foreword

Sergio Díaz-Granados | Executive President
CAF - Development Bank of Latin America and the Caribbean

Our region is synonymous with coffee. For CAF – Development Bank of Latin America and the Caribbean, supporting this emblematic and productive sector, so deeply tied to our roots, is a priority.

Coffee connects agricultural development, infrastructure, national production systems, the cultural traditions of coffee-growing areas, international projection, science, and public–private partnerships—just a few of the pillars that drive regional development.

Coffee is part of our identity and daily lives, and it also plays a key role in shaping our countries' present and future potential. Fifteen nations in Latin America and the Caribbean produce at least 60% of the world's coffee, and more than 5 million families depend directly on this crop. Most of them are small producers who face conditions of informality, multidimensional poverty, and the growing threat of climate change.

Despite their essential role in the rural economy and cultural identity of our region, these producers remain the most vulnerable link in the global coffee value chain. In every coffee bean grown in this region lies the story of a family, the efforts of a community, and the hope for a more just future.

At CAF, we are convinced that this reality can – and must – change. Ensuring the prosperity of coffee producers is not only an ethical imperative but also a fundamental condition for the sustainability of the sector and the comprehensive development of our rural territories.

That is why we are proud to support the preparation of this Guide for Coffee Prosperity, an innovative tool that provides a clear, practical, and participatory roadmap for turning the sector's challenges into opportunities for sustainable development.

This manual is more than a diagnosis: it is a call to action. Built on a rigorous methodology grounded in the Sustainable Development Goals, it sets out concrete strategies to close social, economic, and environmental gaps in coffee-growing regions. Its territorial focus, strong emphasis on public and private investment, and call for collaboration among stakeholders make it a powerful instrument for building a new pact for rural prosperity.

At CAF, we are firmly committed to advancing a new Agricultural Prosperity Strategy for Latin America and the Caribbean. Rural development can no longer be postponed. That is why we support initiatives like this one, which put people at the center, recognize the value of local knowledge, and promote sustainable, resilient, and regenerative production models.

We aim to double the financing achieved over the past 15 years within the next five years, mobilizing USD 8.5 billion by 2030 to accelerate the sustainable transformation of the agricultural sector.

I wish to express my gratitude to the World Coffee Producers Forum for its leadership, to Professor Jeffrey Sachs and his team at CCSI for their vision, and to the experts at OPHI (Oxford Poverty and Human Development Initiative) and Wise Responder for their valuable contributions. This work has also been made possible thanks to the dedication of our own technical teams.

This manual is only the beginning. Its true impact will depend on decisive implementation, aligning efforts and keeping the focus on what matters most: the dignity and wellbeing of those who grow the coffee the world enjoys every day.

I invite you to make this tool your own, to work together in building SDG-aligned Coffee Plans, and to show that when we join forces, prosperity not only accelerates but endures. I also extend this invitation to national and local governments, coffee organizations, the private sector, and international cooperation agencies to use this guide as a foundation for their action plans.

CAF is ready to support countries with technical expertise, financing, and knowledge services to design, fund, and implement sustainability and prosperity plans for the sector.

Together, we can transform the lives of millions of producers and build a more prosperous, fair, and sustainable future for the coffee-growing regions of Latin America and the Caribbean.

Why Prosperity, and Why Now? The Genesis of a Transformative Tool for Coffee Producers

Juan Esteban Orduz
Chairperson World Coffee Producers Forum

One of the first questions readers may ask is: Why a new study on coffee? Is this simply another academic effort on sustainable development, among the thousands published since the issue gained global attention? The answer is no—it is not.

This report is the result of two years of work following an idea conceived by coffee growers from around the world gathered in Kigali, Rwanda, at the 3rd World Coffee Producers Forum in February 2023. It is intended to serve as a practical tool—a handbook for coffee farmers and the broader coffee value chain. Its goal is not only to ensure the prosperity of who produces coffee, going beyond simply guaranteeing its quality and availability. of coffee but also to secure the prosperity of those who produce it. It offers a free, accessible guide to support the design, development, and implementation of Coffee SDG Plans—plans that aim to build the structures needed to strengthen the weakest link in the chain: the farmers. We hope this work facilitates coordinated action among all value chain actors, governments, and local and international stakeholders, enabling producing countries to develop systems that lead to true farmer prosperity.

A long-standing challenge in the coffee value chain is the persistent disconnect between the concerns of producers and those of other stakeholders. While trading and roasting companies focus on efficiency, margins, and shareholder value, small farmers are often simply trying to earn a dignified living and support their families and communities. Farmers frequently accuse the industry—traders, roasters, and retailers—of paying unfair prices or squeezing them to protect their own profits. That criticism may be justified in many cases, but it is not the full picture. Even more important is recognizing that all actors in the coffee ecosystem ultimately share a common goal toward which they must work collectively: a prosperous and sustainable coffee sector as a whole.

Arabica coffee prices have risen significantly in recent years. In 2023, they fluctuated between approximately $1.50/lb and $2.00/lb. In 2024, prices ranged from $2.00/lb to $3.00/lb, and during the first half of 2025, they frequently exceeded $3.00/lb, at times even surpassing $4.00/lb.

In theory, this should mean producers are better off. And in some respects, they are—but in many others, they are not. Farmers may have more cash on hand, yet still lack access to essential services like healthcare, social security, running water, or education. What good is it to afford school fees if there are no schools? Or to save for medical care if there are no clinics? Why do so many farmers work until death, with no pension or path to retirement? How are they to tackle the many challenges that come with climate change? The recognition that true prosperity requires more than higher prices—that it requires public policy, government support, and broad stakeholder engagement—is fundamental to this work.

It was precisely the need for a deeper, more coordinated, and more effective approach among public and private actors—across economic, social and agricultural policies—that guided the conversations among producers and led to the development of this work. That is why it is driven by the leadership of coffee producers from Africa, Asia, and Latin America.

Why focus on prosperity? For decades, multilateral organizations, governments, development agencies, and other stakeholders have embraced “living income” as the standard we should aim for. And while we agree it is a step in the right direction, it is not enough. A living income is defined as sufficient income to afford a decent standard of living for all household members—covering nutritious food, clean water, decent housing, education, healthcare, and other essential needs, along with some savings and emergency funds.

Nevertheless, some years ago, during an International Coffee Organization meeting in London, a few representatives from producer associations and industry executives had an informal discussion about the future of coffee production. One key topic was the idea that “living income” had become the ultimate goal for farmers. I asked several of my colleagues from the non-producing side of the industry whether they would accept a job offering a salary as defined by the living income concept. The answer was unanimous: NO. So, as producer representatives, we asked ourselves: If living income isn’t good enough for others in the value chain, why should it be enough for us?

Achieving a living income is necessary—but it must not be the end goal. We believe it should be a milestone on the path toward prosperity.

The World Coffee Producers Forum has since advocated for a shift in thinking across the entire coffee value chain: the ultimate goal should not be limited to living income, but rather to prosperity. Coffee producers deserve the chance to thrive—to live upwardly mobile lives where each generation is better off than the last. In simple terms, prosperity means that my family lives in increasingly better conditions, and that my children and grandchildren live better than I do. While some stakeholders have embraced this vision, there is still a long way to go.

This work is not intended to pose new questions or to generate further diagnoses of an already well-documented reality. Rather, it serves as a practical instrument—an actionable response—aimed at enhancing the livelihoods of coffee producers and promoting generational advancement, so that each successive generation may inherit improved opportunities. Its structure, based on the common goals and language of the universally accepted Sustainable Development Goals (SDGs) led globally by Professor Jeffrey Sachs, is deliberately designed to allow for adaptation and adoption by countries and regions facing diverse challenges, enabling the development of context-specific plans.

This initiative is also the fruit of a long-standing collaboration with Professor Jeffrey Sachs and his outstanding team at the Columbia Center on Sustainable Investment (CCSI) at Columbia University and the United Nations' Sustainable Development Solutions Network (SDSN), a partnership that dates back to 2017. Professor Sachs's widely recognized and unwavering commitment to improving the lives of underserved communities laid the groundwork for what has become an almost decade-long alliance with the World Coffee Producers Forum. It all began in late 2016, after a conversation I had on coffee sustainability with a global business leader and advocate for sustainability, who later introduced me to Professor Sachs. That introduction led to his participation in the first WCPF meeting in Colombia in 2017, helping to establish the foundation for a shared vision: supporting coffee producers through long-term sustainable development and prosperity.

Under the leadership of Professor Sachs, we have also worked on the methodology and the simulations in Brazil, Colombia and Costa Rica with a great team of experts from Oxford University's OPHI, Oxford Poverty and Human Development Initiative | Wise Responder, led by Jamie Coats, an extraordinary humanist and social entrepreneur. Their work now aims at expanding the use of multidimensional poverty measurement, already utilized by many governments globally, to the private sector.

None of this would have been possible without the unwavering commitment of CAF, Development Bank of Latin America and the Caribbean, and its Executive President, Sergio Díaz-Granados—a coffee producer himself. From our very first conversation about this project, he offered his full support, not only by securing financing but also by mobilizing an exceptional team of experts, including Alicia Montalvo, Martha Castillo, Cristian Grisales, and Miguel Guzmán, who worked hand in hand with all involved in the project. They are also part of CAF's leading team for the regional initiative for "Agriculture and Livestock Prosperity" or "Prosperidad Agropecuaria", launched in March 2025, that seeks to strengthen food security, promote rural development, and position the region as a leader in global agri-food solutions through sustainable, resilient, and regenerative production that spans the entire value chain. This work will contribute meaningfully to that initiative in Latin America and to similar efforts around the world.

And last but not least, I want to extend my heartfelt thanks to the coffee producer organizations that, from day one, have made it their mission to improve the livelihoods of farmers in their countries and regions. I also want to very especially acknowledge the critical role played by the International Coffee Organization under the leadership of Vanusia Nogueira, a co-founder of the WCPF, in helping to integrate the coffee value chain and promote better living conditions for producers worldwide.

At the risk of omitting someone, I would like to recognize the producer organizations that have supported the WCPF since its inception, including: the African Fine Coffees Association (AFCA) and all its members; the Agence de Café Robusta d'Afrique et Madagascar (ACRAM) and its members; the Asociación Mexicana de la Cadena Productiva del Café; Asociación de Café de Guatemala (ANACAFE), the Brazilian Specialty Coffee Association (BSCA); the Coffee Board of India; the Consejo Salvadoreño del Café; the Conselho Nacional do Café (CNC) of Brazil; Conselho dos Exportadores de Café de Brazil (CECAFE); the Federación Nacional de Cafeteros de Colombia (FNC), especially Juan José Mesa, a driving force in the WCPF; the India Coffee Trust; India Coffee Board; the Instituto del Café de Costa Rica (ICAFE); the Instituto Hondureño del Café (IHCAFE); the Inter-African Coffee Organization (IACO) and all its members; the International Coffee Organization and its members (ICO); PROMECAFE and all its members; the Secretaría de Agricultura y Desarrollo Rural de México (SADER); and the Vietnam Coffee and Cocoa Association (VICOFA) for their tireless work on behalf of coffee farmers in their countries and regions and on behalf of the WCPF. I would also like to acknowledge the support of the All Japan Coffee Association (AJCA), the European Coffee Federation (ECF), the National Coffee Association (NCA), the Specialty Coffee Association (SCA), and the Specialty Coffee Association of Japan (SCAJ).

We hope that this work will serve as a guide to effective action to promote the adoption and implementation of the SDG-based Coffee Plans presented here. We also hope that it will inspire their application in numerous coffee-producing countries to help achieve long-awaited prosperity for coffee farmers.

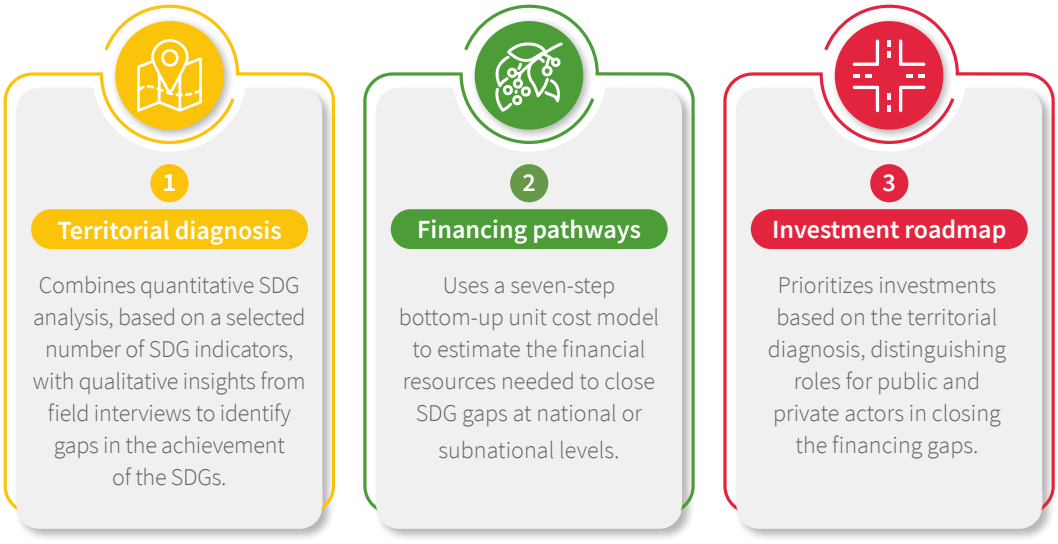
1

Executive summary

This Handbook offers a practical, step-by-step methodology to guide the development of SDG-based Coffee Plans, referred throughout this manual as Coffee Sustainable Development Goals (SDG) Plans. The Coffee SDG Plans are comprehensive national or subnational strategies aimed at advancing the SDGs in coffee-growing regions. Designed for use by governments, multilateral development banks (MDBs), coffee associations, the private sector, and other stakeholders, the Handbook outlines how to conduct integrated assessments of livelihoods, infrastructure, and social services to identify priority investment needs and translate them into targeted, actionable investment roadmaps that promote the prosperity of coffee farmers.

The Handbook builds on simulations conducted in Cerrado Mineiro (Brazil), Huila (Colombia), and Brunca (Costa Rica), where the methodology was field-tested and refined through stakeholder consultations. These experiences were instrumental in shaping the approach to data collection, costing, and investment prioritization, resulting in a flexible methodology that can be adjusted to each country's specific priorities and constraints. Indeed, although the methodology presented in the Handbook is global in scope, it is designed to be locally adaptable and responsive to the wide variation among coffee-producing countries, including differences in institutional capacity, poverty levels, geography, governance, and coffee sector characteristics.

The core methodology includes three main components:



The Handbook recognizes that closing the SDG gaps will require coordinated action by local farmers and producer associations, international coffee companies, national and local governments, the International Coffee Organization (ICO), academic and research institutions, and development finance institutions. Meaningful stakeholder engagement is essential throughout the design of the plan to ensure relevance, foster local ownership, and maximize impact.

The Handbook concludes with a call to action, urging all stakeholders to engage in an inclusive, collaborative process for the design and the implementation of the Coffee SDG Plans. Key recommendations include:

- Application of the methodology presented in this Handbook by government leadership to develop their own Coffee SDG Plan.
- Establishment of a multistakeholder partnership to guide the implementation of the Coffee SDG Plan. The platform should have a shared vision and agenda to prioritize actions, and mobilize public and private investment.
- Identification of policy and governance reforms to improve institutional coordination, foster meaningful stakeholder participation, reduce conflict around land, and decrease anthropogenic pressure on natural ecosystems.
- Alignment between national or subnational Coffee SDG Plans and global initiatives, including the Global Coffee Sustainability and Resilience Fund.

2

The case for SDG planning in the coffee sector

The structure of the coffee industry is not working well for most producers. Coffee is cultivated on about 12.5 million farms worldwide, the vast majority of which is managed by smallholders,[1] who often have limited economic alternatives. Volatile coffee prices have negatively affected coffee communities around the world, and climate change is exacerbating their vulnerable position.

The complexity of these challenges requires a systemic and urgent response, involving complementary, interdependent actions and decisions by government, business, and finance. Sustainable development planning, specifically planning to achieve the Sustainable Development Goals (SDGs), serves this purpose by catalyzing behaviors across many stakeholders that in time can fundamentally transform the sector. SDG planning creates mechanisms for effective and iterative engagement among stakeholders, for thoughtful investments that prioritize on-the-ground needs, and for critically rethinking each stakeholder's role and responsibility at the local, national, and global levels. Through SDG-based planning, it is possible to identify what needs to be done, when it needs to be done, in what sequence, by whom, and at what cost.[2]

SDG-based plans set out a trajectory for a country or region to achieve the SDGs, at least the SDGs relevant to the local context, and highlight the investments and strategies that are best placed to help reach the SDG outcomes.[3] SDG-based planning ensures consensus on goals and priorities and requires a complex combination of interventions supported cohesively among government ministries, donors, private sector companies, and civil society stakeholders. SDG-based plans ensure that private and public investments are aligned, thereby supporting the achievement of better outcomes. In particular, SDG planners should:

- Identify existing and emerging SDG needs, shape the scope and character of future development, draw up plans to ensure that those needs will be met and that communities will be able to prosper.
- Properly combine environmental, economic, and social values, which might be competing or complementary depending on the local context. SDG Plans should reflect this balance—requiring enhanced coordination among decision-makers—and incorporate the views and perspectives of a variety of stakeholders thanks to inclusive participation processes.
- Understand sustainable development as a "dynamic process" that goes beyond the preparation of a plan and extends to monitoring and evaluation to assess the chosen approaches and emerging trends that might require a change of direction.

This approach underpins the Coffee SDG Plans, which should provide answers to a few key questions: (1) What are current and future prospects for coffee production and sale—differentiated by size, region, and other relevant factors? (2) What is the SDG track record, and what are the SDG gaps in the coffee-growing region or country under analysis? (3) What core investment strategies would realistically support prosperity for coffee growers in the region and, more broadly, the achievement of the SDGs? (4) Which financial resources should be mobilized to achieve the SDGs? (5) Which sectors and stakeholders should provide these financial resources (e.g., multilateral development banks, governments, business)?

National and regional Coffee SDG Plans for coffee-growing countries and regions are pivotal to support coffee producers and sustain coffee production into the future, especially in light of the climate crisis and the dynamics of the global coffee market. The general challenges of the coffee sector are common across the world, but the context-specific challenges and opportunities confronting producers and producing countries are distinct.[4] Each national or regional Coffee SDG Plan should account for the differentiated needs, challenges, and opportunities within the country and serves as a practical tool for coffee-producing countries and regions, their producers, and other relevant stakeholders to assess clearly, plan effectively, and act strategically.

Local design and ownership of the Coffee SDG Plan means that relevant stakeholders within each country—including producers and their associations, policy makers, private sector actors, civil society and research institutions—should determine in collaboration the appropriate priority activities and approaches necessary for investing in coffee sustainability within the country. The design of Coffee SDG Plans should therefore be done through multistakeholder, participatory, inclusive, and transparent processes.

01 Info Box

CAF's Agricultural Strategy and support for the coffee sector

MDBs have a critical role to play to transform rural areas through targeted investments, innovation, and institutional support. **The Development Bank of Latin America and the Caribbean (CAF)** is a successful example of how MDBs can provide low-cost capital to countries with limited access to international credit markets.[5]

CAF recently launched its agricultural strategy, *Prosperidad Agropecuaria*, which seeks to promote a prosperous, inclusive, sustainable, and resilient rural sector across Latin America and the Caribbean. The strategy is grounded in a pragmatic approach that seeks to address both the social and environmental challenges of agriculture while ensuring profitability for all actors in the value chain—particularly at the primary production level.

A core focus of Prosperidad Agropecuaria is increasing agricultural productivity, enhancing food and nutritional security, reducing rural poverty, and strengthening climate resilience and environmental sustainability. Recognizing the importance of key agricultural value chains, CAF places strategic emphasis on sectors like coffee, which hold significant economic, social, and environmental value across Latin America and the Caribbean.

In this context, CAF is supporting targeted efforts to improve the productivity, sustainability, and resilience of smallholder coffee producers, who often face challenges such as climate risks, limited access to market, technology, and finance. Its interventions in the coffee sector include:

- Modernizing production through technological innovation and improved farming practices.
- Promoting sustainable and climate-smart approaches, such as agroforestry and organic methods.
- Strengthening value chains to ensure fairer market access, better prices, and stronger producer organizations.
- Empowering vulnerable groups, particularly women, youth, and Indigenous communities involved in coffee production.

However, achieving this transition to regenerative models requires significant investment. This includes public goods—such as technical assistance, effective institutional support, and financial services—as well as private sector investment in infrastructure, equipment, genetics, and integrated production management. Crucially, these efforts must be supported by access to diversified and tailored financial services, aligned with both sovereign and non-sovereign needs and adapted to the agricultural production cycle. In this regard, the Coffee SDG Plans are fully aligned with this vision, offering a practical framework to guide and support the sustainable transformation of the coffee sector.

3

How to structure the Coffee SDG Plan

The concept of sustainable development is based on three pillars: environmental, social, and economic. The coffee sector is no exception, and advancements in all three components are essential for the coffee sector to thrive. These three sustainable development components are overlapping and often mutually supportive:[6]

- Environmental sustainability encompasses two broad issues: the continued availability of resilient ecosystem services and the maintenance of conserved nature. More broadly, it requires climate resiliency.
- Social sustainability considers impacts on people. This includes the avoidance of harms—no child labor, no land grabbing—and positive steps, such as increasing food security.
- Economic sustainability focuses on the ability of producers and farmworkers to earn sufficiently from their respective roles in coffee production to live a life with dignity. Seeing their families find success on the farm may lead the youth to see a life in agriculture more desirable, further boosting the sustainability of the industry.[7]

The Coffee SDG Plans should provide an assessment of the issues arising in the coffee sector under each sustainable development pillar, following this structure:

- **Part I: Diagnosis of the Territory** determines the main sustainable development challenges in the selected coffee-growing region. It employs a quantitative and qualitative methodological approach to prioritize the most pressing sustainable development challenges.
- **Part II: Financing Pathways for the Region** estimates the financing gaps associated with achieving the SDGs. It quantifies the financial resources required to address the sustainable development challenges identified in Part I, providing a robust foundation for investments.
- **Part III: Investment Roadmap** outlines an investment strategy for the region integrating investments in coffee production with investments in coffee-growing communities, focusing on infrastructure investments and social services. By adopting this approach, the investment roadmap combines the private sector economy and public sector economy, identifying what role each actor plays in closing the SDG gaps.

This framework offers a comprehensive approach to promoting sustainable development in coffee-growing regions, beginning with the identification of key challenges, followed by an assessment of financing needs, and culminating in a targeted investment strategy. Together, these components create a foundation for coordinated action by public and private actors to close the SDG gaps.

The following chapters will provide step-by-step guidance for developing each part of the framework, equipping SDG planners with the tools needed to design context-specific, actionable plans.

Territorial Diagnosis

Combines quantitative SDG analysis, based on a selected number of SDG indicators, with qualitative insights from field interviews to identify gaps in the achievement of the SDGs.

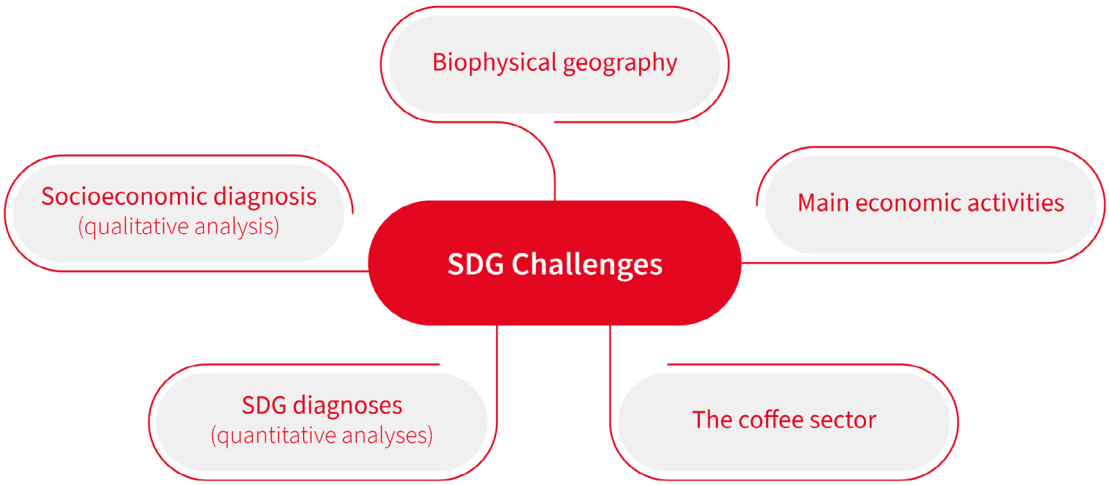
4

Methodology to prepare "Part I: Diagnosis of the Territory" of the Coffee SDG Plan

The objective of this first part of the Coffee SDG Plan—Part I: Diagnosis of the Territory—is to determine the main SDG challenges in the coffee-growing region(s) under scrutiny. This is structured into five main sections, further described in the paragraphs below:

1. Biophysical geography
2. Main economic activities
3. The coffee sector
4. SDG diagnoses
5. Socioeconomic diagnosis on the basis of field interviews

Figure 1 - Diagnosis of the territory – What are the main SDG challenges in the region?



a Starting the diagnosis: overall description of the region

The **first three sections** of the Coffee SDG Plan should include (a) a description of physical geography of the region(s) under scrutiny, including climate, soils, topography and infrastructure for its traversal, major land and water features, and biodiversity challenges; (b) a description of the main economic activities in the region(s), with a particular focus on agricultural activities in addition to coffee, to identify the relative economic importance and context of the coffee sector in relation to other sectors; (c) a description of the coffee sector, identifying locations of coffee production, main production methods, production and sales trends, as well as key actors involved in the coffee value chain in the region.

Coffee SDG Plans prepared at the national level must identify all coffee-growing regions within the country and, for each region, describe the main features of the coffee sector, as indicated above. This will develop a comparative understanding of the challenges of the coffee-growing regions and support prioritization of actions and investments in Part II of the Coffee SDG Plan.

Biophysical geography

For this section, a detailed analysis of the region's geography—including climate zones, climate change, extension, altitude, biodiversity, and type of terrain—should be included, along with details on how these elements influence coffee production.

Regarding climate, it is advisable to detail the amount of rainfall, the average temperature, the type of climate, and observations regarding recent and future prospective climate changes since these are fundamentally relevant to understanding coffee production cycles. Because each coffee-growing region is starting from a different position, with its own needs and opportunities, this section should describe which physical and climate conditions contribute to or hinder coffee production in the area, especially in light of the climate change threat. For example, if the region has experienced droughts, this should be highlighted, indicating also the droughts' impact on coffee production.

Regarding biodiversity, it is important to assess the effects that coffee production has on soil health, vegetation, insects, birds, and mammals that live in the area. Coffee intensification has been associated with a decline of biodiversity,[8] but fertile soils keep coffee plantations growing steadily, while insects and animals regulate coffee pests, reducing the need for chemical pesticides.[9] The impacts of coffee production on biodiversity may also be connected to deforestation. The expansion of coffee production into previously untouched regions poses a significant threat to forests, which should be preserved since they provide valuable services for local communities and humanity at large.[10] This type of biodiversity assessment will help determine whether current agricultural practices are adequate to maintain ecosystem health or should be improved. In the case of deforestation, this will be essential to establish compliance with newly established regulatory requirements (See Info Box 2).

To draft this section, it is advisable to refer to documents published by the government (national and regional) where this type of analysis may have already been conducted. These include rural development plans, climate adaptation and mitigation plans, biodiversity conservation initiatives, and development strategies. When official materials are not available, academic literature can fill the gap. For instance, the Köppen-Geiger climate classification system could be used since it is one of the most common climate-classification systems, covering the whole world using criteria like temperature, which allows for different vegetation growth.[11]

02 Info Box

Climate change and coffee quality

Climatic conditions during seed development have been found to impact the quality of coffee beans. Temperature variations can affect the flavor profiles of coffee as high or low temperatures accelerate or slow down the maturation of coffee cherries, influencing the development of complex flavors.[12] High quality coffees are produced at the higher elevations, with limited seasonal temperature variation. A cooler climate creates the conditions for more acidity, a better aroma quality, and fewer flavor defects than those produced in warmer, less elevated regions. On the other hand, high temperatures can induce the accumulation of two alcohols (butan-1,3 diol and butan-2,3 diol) that in turn are closely correlated with a reduction in aromatic quality.[13]

Another important factor connected to climate change, particularly for Arabica varieties, is their need for shade. This allows them to coexist with forest plantations or adapted native forest areas, contributing to carbon reduction and sequestration. In contrast, Robusta varieties are generally more resilient to climate change, though they tend to thrive in warmer, lower-altitude regions. Together, these differences create a strategic rationale for leveraging the strengths of each variety—or a combination of both—depending on the climatic and ecological potential of each coffee-growing territory, with the aim of optimizing both quality and environmental sustainability.

Main economic activities

A detailed description of the main economic activities in the selected region should include: percentages of main economic activities relative to national and regional GDP, exports, unemployment rate, and seasonal labor, including the extent and manner in which migrant workers are integrated into the workforce.[14] If the region's main economic activity is agriculture, it is advisable to include an in-depth description of the sector and each activity's economic value in terms of percentage share of GDP. Indeed, coffee is often just one of several income sources especially for small- and medium-scale producers, complemented by other crops, livestock, or off-farm activities. This section should include an analysis of how economically profitable coffee production is and is projected to be, including in comparison with other economic activities in the region.

As for the section above, this type of information should be readily available in official documents prepared by the Ministry of Economy, the Ministry of Agriculture, official statistical institutes, and rural development agencies, among others.

The coffee sector

This section provides a general overview of the coffee sector in the region(s), including:

- The relevance of the coffee sector for the economy of the country, possibly specifying its weight in all the coffee-growing regions.
- How many people are employed in and depend on the sector nationally and per region. When possible, it indicates whether child labor is an existing issue; the working conditions for farmworkers, Indigenous people, and migrants; data on informal labor; gender equality for female producers and farmworkers; and producers' economic viability and their ability to earn a living income.
- Description of how coffee is grown, harvested, and processed. For each region, there should be an indication of the extent to which the harvest is mechanized or reliant on manual labor, and whether coffee growers process their coffee on the farm or have access to common processing facilities (or to none).
- Indication of whether the coffee sector is expanding or declining in output and employment, and identification of the main drivers of change within the sector.

- Key policies and supporting mechanisms, including subsidies, agricultural insurance, and other financial benefits for the coffee producers.
- Identification of the main local stakeholders whose points of view and buy-in are relevant for the development of the Coffee SDG Plan as well as for its success, including government representatives, coffee-sector organizations, statistics offices, and community representatives. This exercise is also called stakeholder mapping, and it is essential to determine who controls data and resources and who has decision-making authority. This should also include the legal and institutional framework of the sector if it is governed by specific laws.
- Links with export services, exploring the connections between coffee production and other services necessary for achieving exportable coffee production, such as access to processing facilities, logistics, and quality certification. In countries with several coffee-growing regions, some more successful in exports than others, a comparative analysis of their characteristics can reveal important gaps and opportunities.

To complete this section, extensive desktop research is necessary, reviewing national and regional development plans, climate change adaptation strategies, and official statistics from the national statistical offices. Reports produced by stakeholders' associations, particularly by the coffee federations in the regions, are a key resource, and are often up-to-date and detailed.[15] An academic literature review can also be helpful for a comprehensive understanding of the coffee sector, examining studies regarding sustainable development challenges—both in terms of farmers' economic prosperity, including attraction of an entrepreneurial youth generation and current and prospective climate and environmental challenges. Whenever possible, it is recommended to select studies that have been conducted in the specific region under analysis over a span of five to ten years to track evolving trends.

03 Info Box

Sustainable coffee and voluntary certifications

Of all commodities, coffee has the most widespread adoption of products that are certified or verified under a Voluntary Sustainability Standard (VSS). VSSs are non-mandatory guidelines or certification schemes that companies may choose to adopt to demonstrate their commitment to environmental, social, and ethical practices. These standards are typically developed by non-governmental organizations, industry groups, or multi-stakeholder initiatives. VSSs represent opportunities for companies to meet consumer expectations, gain market access, or enhance their brand reputation. VSSs do not signal compliance with specific regulatory requirements,[16] which, by contrast, are legally binding obligations established by governments or intergovernmental bodies.

The field of VSS has rapidly expanded and now includes third-party certifications (an independent party ensures compliance), second-party verifications (a related party ensures compliance), and first-party assurances (self-assessment).

A 2023 review[17] assessed the most widespread certifications - including, Rainforest Alliance (RA), Fairtrade Labeling Organization International (FLO), now merged with UTZ Certified, Nespresso AAA - and their reported environmental, social and economic performance. The study shows that producers with multiple certifications tend to perform better on several SDGs, including SDG 1 (No Poverty), as producers have a higher daily household income, and SDG 3 (Health). The study also reveals positive effects regarding the reduced use of pesticides, whenever coffee growers engage with multiple certification programs. The results for Fairtrade-only certified producers, instead, show no contribution to sustainable pest control practices (SDG 2, Zero Hunger, including sustainable agriculture), health protection practices (SDG 3, Good Health), and daily wages (SDG 8, Decent Work), although Fairtrade-only certification is found to have predominantly positive effects on the economic pillar. A positive relationship has been identified between Rainforest Alliance and Nespresso AAA and progress towards SDG3 (Health) and SDG 6 (Clean Water and Sanitation).

Evidence of VSS impacts remains scattered, and further research on the trade-offs between the economic, social, and environmental sustainability pillars would help clarify these ambiguous results.

04 Info Box

Security Challenges in Colombia's Coffee-Growing Regions

In Colombia, security concerns are deeply intertwined with both the cultivation of illicit crops[18] and the enduring presence of armed conflict.

Despite the National Illicit Crop Substitution Programme (PNIS)[19] - a Colombian government initiative started in 2017 -, in 2023, the cultivation of coca bush increased by 10 per cent, and, unlike previous years where growth was concentrated in a few areas, 2023 saw a broader expansion across 16 of the 19 coca-producing departments, particularly in Cauca and Nariño, which are also coffee-growing regions.[20] The rise in coca cultivation is a driver of insecurity. Coca is increasingly being planted closer to population centers. This proximity threatens to entrench illegal economies in legal markets and deepen community dependence on illicit revenues.[21] While coca cultivation remains a significant factor in undermining legal agricultural activities, the escalation of armed conflict has further compounded these challenges.

In 2024, Colombia experienced a rise in armed conflict: armed groups were reconfigured, territorial disputes between them intensified, armed actions increased and, in areas controlled by armed groups, mechanisms to control civilians were tightened.[22] Escalating armed conflict translated into a higher rate of community confinement and displacement, including in coffee-producing regions. According to the International Committee of the Red Cross, confinement events more than doubled, affecting nearly 89,000 people across 12 departments, especially in the Pacific region, with Chocó accounting for 41% of cases. These confinements, often caused by armed threats or explosive hazards, limited access to food, healthcare, and basic services, worsening physical and mental health and increasing vulnerability. Indigenous and Afrodescendant peoples made up 53% of those confined. Mass displacement affected over 41,000 people, with a 34% increase in events, particularly in Nariño, Cauca, Antioquia, and Bolívar. Indigenous and Afrodescendant groups were disproportionately affected, making up 66% of displaced individuals.

A study[23] that examines the effect of conflict and illicit crops on production decisions of coffee growers in Colombia, demonstrates that an intensification of armed group activities is correlated with a reduction of the probability of continuing coffee production for small, medium and large producers, with smallholders being more impacted than the other groups. Furthermore, small producers living in regions with a large percentage of coca production are found to be more likely to drop out of coffee, while medium producers exposed to high average municipality coca cultivation are more likely to either abandon coffee or decrease the percentage of their farm allocated to it.

Overall, in conflict-affected regions, rural households face significant challenges due to violence, which disrupts agricultural production in several ways. Violence leads to reduced production through attacks, extortions, and the seizure of crops. Additionally, insecurity and direct attacks cause forced displacement, and the recruitment of combatants and illegal crops compete with agricultural labor.[24] Even without direct attacks, violence damages infrastructure, reduces public services, limits financial access, and raises transaction costs, all of which decrease agricultural income. Violence also creates uncertainty, altering the incentives for agricultural producers, who, when facing threat or in anticipation of future shocks, are found to revert back to subsistence agriculture and shift portfolio to less risky, but also less profitable activities.[25]

In the Colombian context, the strong presence of the FNC and the technical and technological support it provides seem to have isolated coffee growers from violence and to be an incentive to continue coffee production. This shows how strong institutions on a given territory can work as a deterrent against violence. As Colombia witnesses an escalation of hostilities in several departments, addressing security issues requires multifaceted solutions that involve the government, international partners, local communities, and the private sector. In particular:

- income potential is a key driver of farmers' crop choices, underscoring the need for profitable legal alternatives. Supporting coffee growers to transition to certified or organic production could provide farmers with a higher income and reduce coca leaves cultivation, which offer better returns;[26]
- social safety nets are essential to reduce the effects of armed conflicts on coffee growers;
- providing concessional capital to farmers and microfinance services can reduce reliance on illicit crops;
- development financial institutions are best placed to help catalyze private investment in these regions, as well as to accompany financial support with advice, staff presence on the ground, capable intermediary organizations, capacity building, and recruitment of strong lead investors.[27]

Only through such integrated strategies can Colombia retain rural populations, foster resilience in conflict zones, and sustainably reduce the grip of illicit economies. Of the regions where CCSI-led Coffee SDG Plans simulations were carried out, Colombia is the one where security concerns are the most acute. However, similar solutions apply to all regions affected by conflict.

b SDG diagnoses

The SDGs are the globally agreed agenda adopted by all 193 United Nations member states in March 2015. These global goals integrate the vital economic, social, and environmental considerations into a unified, multisector, and holistic development schema (Figure 2).

Figure 2 - The Sustainable Development Goals

The SDGs were adopted in September 2015 to succeed the Millennium Development Goals (2001–2015). The U.N. member countries unanimously adopted Agenda 2030, a comprehensive sustainable development agenda. Agenda 2030 includes the 17 SDGs, which in turn are operationalized by 169 targets.

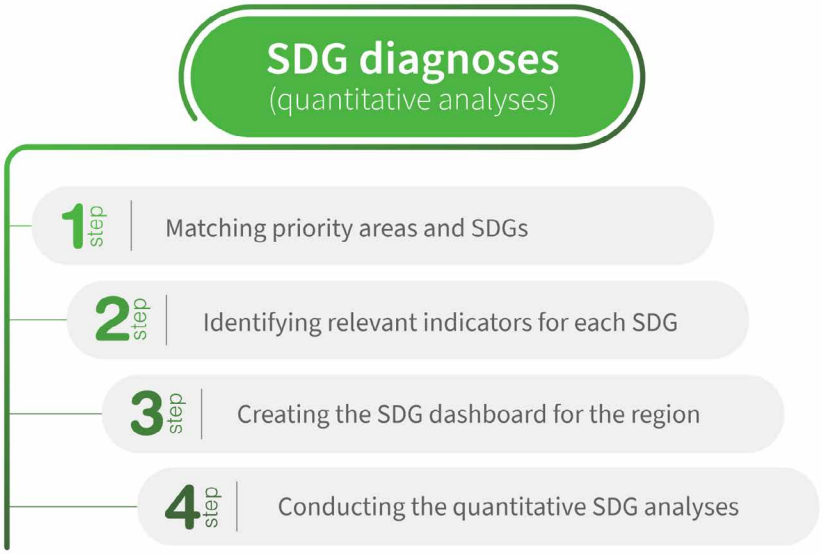
To measure progress toward the targets under each goal, in 2017, the global indicator framework was adopted, including 232 indicators to be collected at the national level. In addition, the U.N. Sustainable Development Solutions Network (SDSN) issues an annual *Sustainable Development Report* to track progress on the SDGs. While the SDG framework is global in nature and indicators are at the national level, the achievement of the SDGs depends in large part on policies and actions at the subnational level.[28]

The SDGs provide a holistic and detailed framework for the sustainable development of the coffee sector and for supporting sustainable development in coffee-growing regions.[29]

Aligning the coffee sector with the SDGs presents a clear framework for upstream and downstream actors along the value chain. Nearly all of the 17 SDGs hold some relevance, but nine of them are particularly recommended to be included in Coffee SDG Plans and, therefore, provide substantive goals for coffee-producing countries and regions.

A step-by-step approach to provide a framework for identifying the main SDG challenges in a country or region is supplied below (Figure 3).

Figure 3 - SDG diagnoses



Matching priority areas and SDGs

Coffee SDG Plans should address challenges across an agreed-upon number of priority areas. Each priority area corresponds to relevant SDGs.

Seven priority areas, identified using the SDG Six Transformations framework,[30] are considered appropriate to cover some of the most pressing challenges facing the coffee industry, such as deforestation, low access to roads and sanitary water, and access to health care, digital infrastructure, and education. Each priority area—and, equally, each transformation—comprises key SDG interventions that together generate intermediate outputs, which serve as inputs into achieving the SDGs.[31] Priority areas can vary, depending on the country of focus, to ensure they are tailored to the perceived challenges facing the region.

The seven priority areas for coffee-growing regions identify areas in which systemic change is needed to progress toward sustainable development. These priority areas are not intended as a new clustering of the 17 SDGs or a reduced form of the SDGs, but to describe systemic and integrative changes that are related to all SDGs.[32] The seven priority areas are described below.

1. **Social protection (SDGs 1 and 2)** highlights the need to eradicate poverty and extend the social safety net, including by guaranteeing high quality life in old age. Significantly reducing poverty is also expected to combat hunger and malnutrition.
2. **Sustainable coffee production (SDGs 13 and 15)** reflects on the effects that intensive coffee production may have on natural resources, as well as on the impacts that climate change and biodiversity loss may have on sustaining production levels.
3. **Health and well-being (SDG 3)** fosters universal access to health services, from primary health care and interventions for maternal, newborn, and child health to effective prevention and treatment of diseases.[33]
4. **Education (SDG 4)** empowers individuals through primary and secondary schooling and builds human capacity, which in turn promotes economic growth.
5. **Water and sanitation (SDG 6)** are relevant not only for improving access to appropriate water supply and sanitation facilities but also for designing measures to address water scarcity, including for coffee (and agricultural) production.

6. **Efficient and clean energy (SDG 7)** aims at ensuring universal access to energy sources through grid extensions and microgrids as well as decarbonizing energy systems.
7. **Infrastructure and digital access (SDG 9)** promotes the construction and upgrading of all-season roads to give rural areas better access to services and markets, and digitalization for increased educational and economic opportunities.

To provide an assessment of where a coffee-growing region stands in terms of SDG progress, the Coffee SDG Plan has to be informed by thorough data collection based on a selected set of indicators among the total 232 indicators.

Figure 4 - Visual diagram of the seven priority areas for coffee-growing-regions

Identifying relevant indicators for each SDG

For the purpose of the SDG diagnoses of the Coffee SDG Plan, it is recommended to select an initial set of 34 indicators (Table 1), which capture some of the main challenges facing the coffee sector.

To select the indicators, it is possible to refer to existing literature.[34] Then combine these approaches with a relevance criterion, which help select indicators that are significant for the coffee sector. For example, indicator 2.3.2—average income of small-scale food producers, by sex and Indigenous status—is particularly relevant to regions where coffee is the main agricultural activity and the vast majority of farms are small scale.

Table 1 - Complete list of recommended indicators to be used in SDG diagnoses.

Priority Area	Indicator Number	Indicator Description
Social protection	1.1.1	Proportion of the population living below the international poverty line by sex, age, employment status, and geographical location (urban/rural)
	1.2.1	Proportion of population living below the national poverty line, by sex and age
	1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims, and the poor and the vulnerable
	1.5.1	Number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 population
	2.1.1	Prevalence of undernourishment
	2.2.2	Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)
	2.3.2	Average income of small-scale food producers, by sex and indigenous status
	2.4.1	Proportion of agricultural area under productive and sustainable agriculture
Sustainable coffee production	13.1.1	Number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 population
	13.1.3	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies
	15.1.1	Forest area as a proportion of total land area
	15.1.2	Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type
	15.2.1	Progress towards sustainable forest management
	15.4.2	Mountain Green Cover Index
	15.5.1	Red List Index
Health and well-being	3.2.1	Under-five mortality rate
	3.2.2	Neonatal mortality rate
	3.4.1	Mortality rate attributed to cardiovascular disease, cancer, diabetes, or chronic respiratory disease
	3.4.2	Suicide mortality rate
	3.5.2	Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in liters of pure alcohol
	3.8.1	Coverage of essential health services
	3.8.2	Proportion of population with large household expenditures on health as a share of total household expenditure or income
	3.9.1	Mortality rate attributed to household and ambient air pollution
	3.9.2	Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation, and Hygiene for All (WASH) services)

Priority Area	Indicator Number	Indicator Description
Education	4.1.1	Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex
	4.1.2	Completion rate (primary education, lower secondary education, upper secondary education)
Water and sanitation	6.1.1	Proportion of population using safely managed drinking water services
	6.2.1	Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water
	6.3.1	Proportion of domestic and industrial wastewater flows safely treated
	6.4.2	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources
Efficient and clean energy	7.1.1	Proportion of population with access to electricity
	7.2.1	Renewable energy share in the total final energy consumption
Infrastructure and digital access	9.1.1	Proportion of the rural population who live within 2 km of an all-season road
	9.c.1	Proportion of population covered by a mobile network, by technology

Indicators will often have to be localized to a specific coffee-producing region within the selected country, making it more useful to consolidate multiple indicators into one. For instance, when conducting this exercise for Cerrado Mineiro (Brazil), the indicator for "prevalence of undernourishment" (2.1.1) was replaced with "child malnutrition" (2.2.2) due to data constraints.

Indicators may draw from a variety of data levels, including national, regional, provincial, or municipal. National Coffee SDG Plans should carefully consider which level they draw from, since they risk overlooking the farmworker population with data that are too general. A general rule is to target the most precise level possible for each indicator, then move up a level if it is not available. Rural populations should also be targeted if possible. The more the analysis relies on aggregated data—meaning national level, not local—the less specific and, consequently, less precise the resulting information tends to become. Therefore, it is essential that the source and nature of the data used in such assessments (e.g., national, rural, regional, municipal) are clearly acknowledged and transparently mapped, to ensure the findings are credible and interpretable.

For this purpose, it is recommended that any substitutions or modifications made to the suggested set of indicators are recorded in a table like the one below (Table 2). The table should use different color gradients to show different data collection levels, with a lighter color assigned to general levels of data, becoming darker as the data get the more granular. If data are completely missing, they should be assigned a different color, such as gray in the example below.

Table 2 - Selected indicators and their substitutions. The colors of each cell demonstrate the levels at which their data were collected. This is an excerpt from Cerrado Mineiro's Coffee SDG Plan developed by CCSI, which substituted multiple indicators to gather more precise data on the coffee-growing regional level (dark blue) rather than the national level (light blue).

Priority Area	Indicator Number	Indicators
Social protection	**1.1.1**	Proportion of the population living below the international poverty line by sex, age, employment status, and geographical location (urban/rural) *(Substitute: Poverty headcount ratio at $2.15/day, 2017 PPP, %)*
	1.2.1	Proportion of population living below the national poverty line, by sex and age *(Substitute: People with income up to 1/4 of the minimum wage (%))*
	1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims, and the poor and the vulnerable *(Substitute: Percentage of people enrolled in the Single Registry receiving Bolsa Família)*
	1.5.2	Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)
	2.1.1	Prevalence of undernourishment *(Substitute: Child malnutrition (%))*
	2.3.2	Average income of small-scale food producers, by sex and indigenous status
	2.4.1	Proportion of agricultural area under productive and sustainable agriculture *(Substitute: Establishments practicing organic agriculture (%))*

Availability of data and institutions that collect them will vary by country.[35] However, most countries will have a centralized statistics department that provides the majority of the data necessary. For example, Colombia's National Administrative Department of Statistics (DANE) has a program for collecting data on the SDGs.[36] DANE and other institutions have regional- and municipal-level data available, but sometimes a coffee-growing region of interest will require manual aggregations of data. For example, Cerrado Mineiro is not a federally recognized region, so it was necessary to average each indicator from each city in the region, creating a new database for the purposes of the Coffee SDG Plan.[37]

Regional databases should also be used. For instance, the Agenda 2030 website is an important source of information for all countries in Latin America and the Caribbean (LAC).[38] This database has data for the region by country and SDG indicator, often including extra information such as rural and urban statistics. Even if the data are too general for a localized plan, regional averages are always helpful as points of reference for local performance.

Finally, not all countries will have centralized data bureaus that are easily accessible. Indeed, only 12 countries in the African Union have an official statistical organization.[39] There is a growing body of literature describing the tools available for regions looking to develop better data to advance toward the SDGs, especially in developing countries. Orhan and Guajardo (2021) analyze and connect 142 data analytics articles from 2009 to 2019 with the corresponding SDG that their findings would help to measure.[40] Although each article is written about a distinct developing country, their review acts as a database for methodologies that future researchers can follow for their own region. Similarly, the International Federation of Operational Research Societies has an online database for development researchers to find publications, tools, and conferences to learn about gathering data for a specific area of research.[41] The Global Partnership for Sustainable Development Data has also published helpful roadmaps for streamlining data in developing countries, although this may be beyond the scope of this Plan.[42]

Creating the SDG dashboard for the region

The SDG dashboard presents an easily understandable assessment of the SDG progress in the region(s) of interest. The recommended procedure to build the SDG dashboard is straightforward: (1) Collect the indicators for all relevant levels, from local to national, possibly distinguishing rural and urban areas, and (2) compare them with a performance threshold. The most common performance thresholds for Coffee SDG Plans are calculated by the SDSN.

The SDSN publishes performance "bands" for a variety of indicators on a much larger scale in its Sustainable Development Report (SDR).[43] This Handbook adopts these bands as the main way to evaluate an indicator, so the following is an excerpt of Section 1.5.2 in SDSN's 2018 SDG Index and Dashboards detailed methodological paper:

> To assess a country's progress on a particular indicator, we considered four bands. The green band is bounded by the maximum that can be achieved for each variable (i.e., the upper bound) and the threshold for achieving the SDG. Three color bands ranging from yellow to orange and red denote an increasing distance from SDG achievement. The red band is bound at the bottom by the value of the 2.5th percentile of the distribution. Upper and lower bounds are the same as for the SDG Index.
>
> Additional thresholds were established based on statistical techniques (typically using the mean and standard deviations) and in consultation with experts. The country assessments were subject to a public consultation and direct consultations with members of the Sustainable Development Solutions Network and other experts, including national and international statistical offices. All thresholds were specified in absolute terms and apply to all countries.
>
> The purpose of the global SDG dashboards is to highlight those SDGs that require particular attention in each country and therefore should be prioritized for early action. For the design of the SDG dashboards, the same issues related to weighting and aggregation of indicators apply, as discussed above for the SDG Index.
>
> Averaging across all indicators for an SDG might hide areas of policy concern if a country performs well on most indicators but faces serious shortfalls on one or two metrics within the same SDG. This applies particularly to high-income and upper-middle-income countries that have made significant progress on many SDG dimensions but may face serious shortfalls on individual variables.
>
> As a result, the global SDG dashboards aggregate indicator ratings for each SDG by estimating the average of the two variables on which a country performed worst. To this end, the indicator values were first rescaled from 0 to 3, where 0 corresponds to the lower bound, 1 to the value of the threshold between red and orange ("red threshold"), 2 to the value of the threshold between yellow and green ("green threshold"), and 3 to the upper bound. For all indicators, the yellow/orange threshold was set as the value halfway between the red and green thresholds (1.5). Each interval between 0 and 3 is continuous.
>
> We then took the average of the two rescaled variables on which the country performed worst to identify the rating for the goal. We applied the added rule that in order to score green for the goal both indicators had to be green—otherwise the goal would be rated yellow. Similarly, a red score was applied only if both worst-performing indicators score red. If the country has only one data point under the SDG, then the color rating for that indicator determines the overall rating for the goal. If the country has less than 50% of the indicators available under a goal the dashboard color for that goal is "gray."[44]

For the highest possible accuracy, this methodology may be adjusted by a regional institution (e.g., a national department of statistics) to develop region-specific thresholds.

For the purposes of this handbook, and on the basis of the methodology developed by SDSN, the overall status of each priority area is determined by its worst-performing global indicator. For example, even if most indicators in the health and well-being priority area for a region are green, if one indicator is yellow, then the entire area is classified at that level. This method ensures that areas with remaining challenges are not overshadowed by improvements in other indicators.

05 Info Box

How to select alternative metrics for indicators

In the event that the global SDR thresholds are deemed too general, unhelpful, or are altogether absent from a Plan's selected indicators, alternative metrics can be used in the dashboard. The SDR methodology has a section detailing the process for deciding whether an indicator has been achieved.[45] This info box will provide the list of steps to take, which can then be applied to different indicators if future plans differ from those selected in the 2024 Sustainable Development Report.

Taken from their methodology section:

1. "Use the absolute quantitative thresholds of the SDGs and targets: e.g., zero poverty, universal school completion, universal access to water and sanitation, full gender equality.
2. Where no explicit SDG target is available, apply the principle of "Leave-No-One-Behind" to set the upper bound to universal access, or zero deprivation.
3. Where science-based targets exist that must be achieved by 2030 or later, use these to set the 100% upper bound (e.g., zero greenhouse gas emissions from CO_2 as required by no later than 2050 to limit global warming to 1.5°C, 100% sustainable management of fisheries).
4. For all other indicators, use the average of the top five performers."[46]

Another option is to search for regional databases on SDG progress. In the sample dashboard below (Table 3), the aforementioned Agenda 2030 LAC database was utilized for its comparisons of SDG progress between countries at the urban and rural level. The final column of the dashboard reports whether the region of Cerrado Mineiro in Brazil performed better or worse, statistically, than the LAC average.

Data that cannot be found should be marked as not available (N/A) on the dashboard. Many indicators have data for more than one geographical level, and all available levels should be included. The most relevant level used for evaluation should be marked with a blue highlight.

The dashboard not only identifies areas where the region is progressing but also emphasizes significant challenges that remain. It serves as a baseline for ongoing monitoring and a guide for targeted interventions, ensuring that development efforts are strategic and aligned with global sustainability goals. When combined with qualitative data (section 4.c), it highlights the most pressing challenges in the region of interest, guiding future investment needs.

Below is an example of one priority area—sustainable coffee production—in Cerrado Mineiro, Brazil. In this case, data were collected for Cerrado Mineiro first, then for Minas Gerais (where local data sources were unavailable), and lastly at the national level. SDSN thresholds were preferentially used to assess the performance, but when missing, the indicators were assessed against the LAC average. It should be noted that, although Cerrado Mineiro performs better than average and even "green" in some indicators, the fact that it has low biodiversity protection signals a major challenge to achieving the relevant SDGs.

Table 3 - Dashboard example for sustainable coffee production in Cerrado Mineiro

Priority areas	Performance	Indicator	Indicator description	Cerrado Mineiro	Minas Gerais	National	Year	SDSN dashboard	LAC Dashboard
Sustainable coffee production	Major challenges remain	13.1.1	Number of deaths, missing persons, and directly affected persons attributed to disasters per 100,000 population	N/A	N/A	210.3	2022	N/A	Better than average
		13.1.3	Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	N/A	N/A	N/A	N/A	N/A	N/A
		15.1.1	Forest area as a proportion of total land area	22.5%	N/A	N/A	2017	N/A	Worse than average
		15.1.2	Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	N/A	N/A	45.7% terrestrial; 28.6% fresh water	2023	Red	Better than average
		15.2.1	Progress toward sustainable forest management	N/A	N/A	N/A	N/A	N/A	N/A
		15.4.2	Mountain Green Cover Index	N/A	N/A	99.5%	2018	N/A	Better than average
		15.5.1	Red List Index	N/A	N/A	0.9	2024	Green	Better than average

Conducting the quantitative SDG analysis

Although the SDG dashboard is the main component for deciding priority investment areas in this section, it provides little explanation beyond the color in its performance column. A more detailed analysis of the state of the SDGs in the selected coffee-growing region provides an opportunity to highlight the most important aspects of the priority area's SDG performance and to summarize caveats to the statistics found during data collection. Visuals such as graphs and maps can also be included here to help the reader contextualize data trends.

Two examples are given below:

SDG quantitative analysis - Example 1

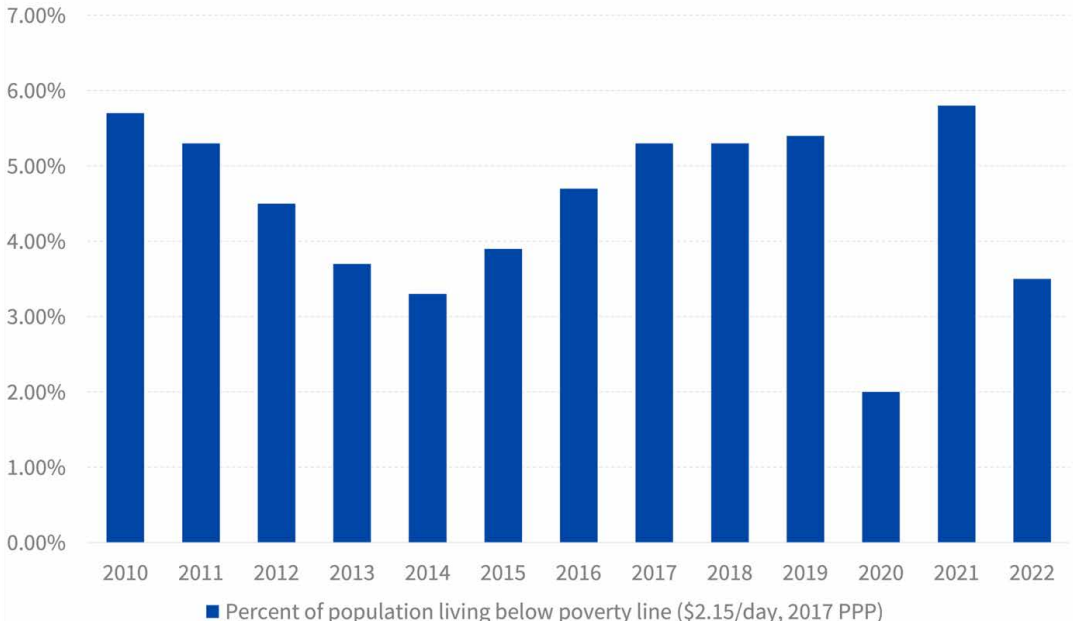
Cerrado Mineiro, Brazil - Social Protection (SDG 1)

Social protection highlights the need to eradicate poverty and extend the social safety net, including by guaranteeing high quality life in old age. Significantly reducing poverty is also expected to combat hunger and malnutrition.

In Brazil, at the national level, social spending accounts for 15% of the GDP, lower than the OECD average of 21.1%.[47] In 2021, at the national level, pension spending accounted for 9.1% of the GDP, against the OECD average of 7.7%,[48] and public spending for family benefits was 1.5% of the GDP - lower than the OECD average of 2.4%.

Figure 5 shows that poverty levels have been oscillating in Brazil in the last 15 years. Poverty reduced during the COVID-19 pandemic in 2020 as the government increased social spending with direct cash transfers as part of the public response to the pandemic.[49] Poverty rate has recently decreased to 3.5%, the lowest level in 8 years.

Figure 5 - National Poverty Levels in Brazil 2010-2022



There are limited data available for poverty in the Cerrado Mineiro's municipalities, but it is reasonable to assume that poverty followed a similar trend as the national data. The region's income is higher than Brazil's, but inequality and poverty persist. Many people rely on government social benefits; in 2023, around 42% of the Cerrado Mineiro population[50] was registered in the CadÚnico, the government platform for low-income families[51] to receive benefits such as Bolsa Família.

Even with the government benefit, in 2017, 40% of the Cerrado Mineiro's population registered to CadÚnico were still under Brazil's national poverty line.

This example illustrates two important roles that these explanations can play.

First, the graph element shows how erratic the trends have been since the pandemic. Irregularity in 2020 data is something that will remain relevant for years to come, so providing the reader with context is helpful.

Second, additional non-SDG sources can be included in the text here. Footnote 49 links to a source giving specifics to the type of pandemic aid that lower income residents received, giving more context to the graph and the dashboard.

This section is helpful to give more context to the numbers in the dashboard, transitioning well into the qualitative interview section.

SDG quantitative analysis - Example 2

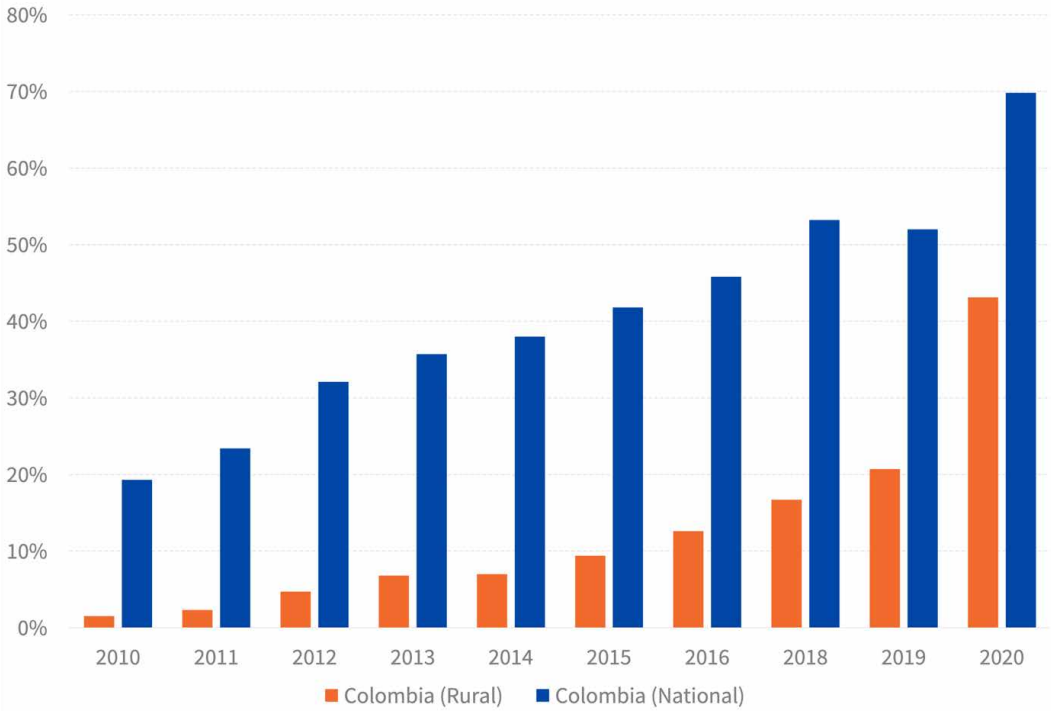
Huila, Colombia - Infrastructure and digital inclusion (SDG 9)

SDG 9 seeks to build resilient and sustainable infrastructure, and to increase access to information technology.[52]

Basic transportation infrastructure in Huila is insufficient, and statistics regarding its status are difficult to find. In 2018, the proportion of the department's rural population that lived within two kilometers of an all-season road was 66.3%.[53] Although this is a few percentage points above the national average of 63.7%, it is far below the SDSN target threshold of 90%.

The digital infrastructure is also insufficient, although the proportion of households with internet access more than doubled from 2019 to 2020 in rural areas. Only 51.5% of households in Huila had internet access in 2021.[54] In rural areas of Colombia, this number drops to 28.8%. Only 49% of Huila's rural population had a smartphone in 2020, so SDG 9.c.1's target for 75% mobile network coverage is far from realization.[55]

Figure 6 - Percent of Colombian Households With Internet Access: Rural vs. National Data



In the 2021 DANE report concerning digital access and technology, 40.8% of interviewed rural households without internet declared that it was because of high costs, while 24.4% blamed the lack of coverage.[56] Asked the same question about why they did not use a computer, 58.1% blamed the cost.[57] Digital access should not be seen in isolation, rather it ties back to SDG 4, and how those students lacking internet and computer access are found to score 20-30 points lower than those with them.

This example especially helps to understand the discrepancy between rural and urban areas in SDG achievement. For countries with generally high-scoring SDGs, this aspect is of high importance because it helps isolate the needs of the coffee sector specifically.

Although the qualitative interview section serves as the main way to gain insight into the issues faced by coffee workers on the ground, the inclusion of any supplemental details like those included in the last paragraph serve to bolster the argument that will be made at the end of the Coffee SDG Plans.

06 Info Box

Dealing with data constraints

As seen above, the SDGs are a set of specific and measurable goals, and effective impact measurement and data collection are critical to their success. To track progress towards the SDGs and define interventions to close the SDG gaps, data are key. Poor-quality, outdated, incomplete, privately-owned data risk leading to inaccurate assessment of the SDG challenges in a given region, and are a significant obstacle in monitoring the progress of SDGs, especially for comparing data over time and across countries.[58]

However, data constraints should not be a reason for inaction. Policymakers, financial institutions, and coffee associations, etc., should continue to make decisions, even in the face of incomplete or limited data.

The Handbook acknowledges that SDG-related data may be limited during the development of a Coffee SDG Plan, and outlines several practical strategies to address these constraints:

- **Use higher-level data when local data are unavailable:** If municipal-level data are missing, draw on regional data; if regional data are also unavailable, use national-level data.
- **Rely on proxies or alternative indicators** that can provide relevant insights when direct data are not accessible.
- **Consult existing literature** to identify estimates, benchmarks, or case studies that may help fill gaps.
- **Make well-justified assumptions**, clearly documenting the rationale behind them and noting any implications for the reliability of results.
- **Engage experts and stakeholders through interviews** to supplement missing data, especially where granular information is essential for local-level planning.
- **Be transparent about data limitations**, noting any uncertainties related to outdated information, lack of granularity, or use of proxies.
- **Establish connections with statistical offices, government agencies, research institutions, and think tanks**, which may hold non-public data or have the technical capacity to generate the missing information.

Finally, it is critical to **systematically document any data gaps** encountered. This not only supports transparency but also helps guide future data collection and monitoring efforts.

07 Info Box

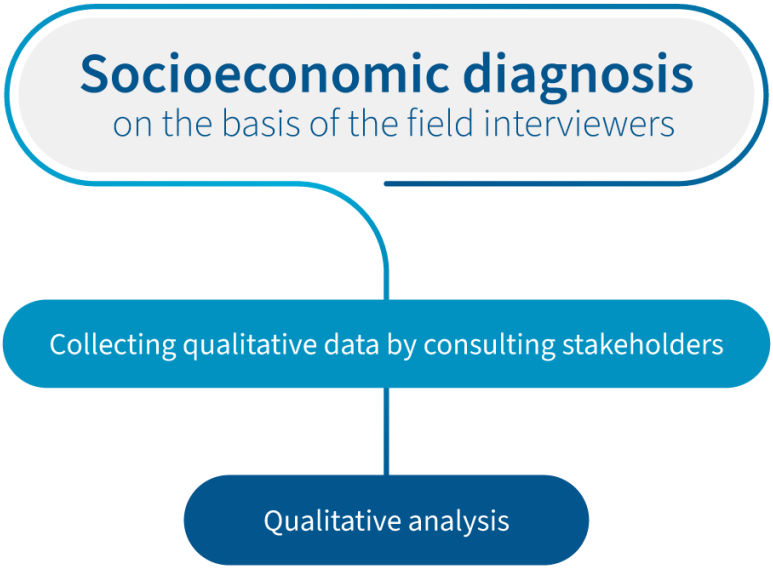
Multidimensional Poverty Analysis

The SDG diagnoses described in this Handbook can be complemented by a Multidimensional Poverty analysis. The Multidimensional Poverty Index (MPI) has been adopted by the United Nations since 2010 as part of the Human Development Report, and represents an opportunity to further investigate SD1, Target 1.2, namely *"By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions."* The concept of multidimensional poverty recognises that poverty is not solely a matter of insufficient income, but rather a complex phenomenon encompassing multiple, overlapping deprivations that affect individuals and households simultaneously. In the context of the Coffee SDG Plans, building a local MPI can complement the SDG diagnoses by offering a household-level perspective on poverty, thereby supporting a more comprehensive understanding of the development challenges facing coffee-producing communities.

A major challenge in constructing a local MPI is the lack of granular, high-quality data across all relevant dimensions, particularly at the local level. Addressing these data constraints requires adopting context-specific strategies - such as leveraging administrative records, using proxy indicators, or incorporating participatory methods - to ensure the MPI reflects local realities. Although the development of a localized MPI falls outside the scope of this Handbook, the methodology has already been piloted in three coffee-growing regions - Brunca (Costa Rica), Huila (Colombia), and Cerrado Mineiro (Brazil) - where different strategies were employed to navigate data limitations and adapt the MPI to the specific context.

c Socioeconomic diagnosis on the basis of field interviews

Figure 7 - The socioeconomic diagnosis



Collecting qualitative data by consulting stakeholders

Stakeholder interviews are an essential step in complementing the SDG quantitative analysis. This mixed methods approach allows the Coffee SDG Plan to reflect the realities on the ground with greater precision and granularity. The interviews aim to capture critical insights into the challenges of each region, ensuring that the proposed sustainable development strategies are accurate and context sensitive.

Quantitative indicators alone often fail to capture the full picture. For example, in the SDG framework, the overall status of a priority area is determined by its worst-performing indicator. Even if most indicators in a region's Health and Well-Being category show strong performance, a single underperforming indicator (e.g., in yellow) lowers the classification for the entire area. While this method highlights persisting challenges, it lacks nuance and does not provide insights into the underlying factors. Furthermore, in some regions, there is a lack of sufficient data, making qualitative insights even more valuable. These gaps in data emphasize the importance of stakeholder interviews to provide a more comprehensive view of the region's challenges and help bridge this gap by providing context.

To collect qualitative data, it is suggested to use the methodology of semistructured interviews. Semistructured interviews consist of several key questions that help delineate the areas to be explored, while leaving the interviewer and interviewee the freedom to further explore some aspects and raise points that were not anticipated. This interview format is particularly helpful in the context of this work since it provides interviewees with some guidance, but also with the flexibility to amend the scope of the answers and elaborate more on selected elements.

Figure 8 - Collecting qualitative data by consulting stakeholders

As a first step, the planners should **select the relevant stakeholders to be interviewed**. In section 4.a, the subheader titled "The coffee sector" presents a map of the main actors of the coffee value chain, and on that basis the actors who will be interviewed should be selected. The interviews during this phase do not seek to collect statistically representative data. Even so, an effort should be made to select a group of interviewees that can provide a diversity of opinions and approaches, have the knowledge or authority to provide answers to the issues of interest, and are key players in the coffee value chain. The interviewees are chosen using the following cumulative criteria:

- They are involved or work in one of the seven focus areas: social protection and zero hunger, sustainable coffee production, health and well-being, education, water and sanitation, efficient and clean energy, infrastructure and digital access.
- They represent different parts of the coffee value chain (producers, traders, government).
- They work at different levels of the industry (local, regional, national, international).

08 Info Box

Example of interviewees selected for the Coffee SDG Plan in Huila, Colombia

In Huila, Colombia through this process, eight types of institutions were selected:

- Local coffee producer organizations
- Regional Department of Economic Development
- Regional office of the Ministry of Agriculture
- Coffee research institutes and/or extension services
- Rural financial institutions or credit cooperatives
- Associations of value chain actors
- Representatives of multinational coffee companies
- Organizations focused on labor, migration, and social welfare issues

The second step is to **create an interview protocol.** The interviews follow a common basis but should be tailored to each institution. Through the interviews, the objective is to obtain critical information about the challenges faced by each region to ensure that the development strategies put forward in the Coffee SDG Plan accurately reflect the realities on the ground. A set of questions should be posed to each participant, encompassing priority areas linked to the SDG-based diagnosis, such as human capacity and demography, sustainable coffee production, health and food security, water and sanitation, efficient and clean energy, and infrastructure and digital inclusion. Additionally, the interviews should extend to broader topics, according to the context of the region. Therefore, the questions are related to the following broad issues:

- What are the main development challenges (related to coffee production, but also related to any other aspect of the SDGs: e.g., health, education, energy, connectivity)?
- How are the relationships between the community and other actors, including local government, national government, companies, and coffee producer associations?
- What are the solutions to the communities' challenges, including investment needs?
- Which other organizations or initiatives are relevant? Are there national, regional, or global development bank projects or nongovernmental organizations (NGOs)?

In Annex I we suggest an interview protocol that can be presented to the stakeholders during the field visits. The interviews should be conducted in the local language to ensure they are inclusive, but the English translation is provided below.

Qualitative analysis

Following the completion of stakeholder interviews, a process has to be employed to structure and analyze the insights gathered. This ensures that the findings are comprehensive and actionable, forming the foundation for subsequent phases of the project.

A first approach to conduct this qualitative analysis is to categorize interviewees into distinct stakeholder groups to facilitate a targeted analysis of their inputs. Stakeholder categories can include:

- Farmers: Small farms, medium-scale producers, and large-scale agribusinesses.
- Institutional actors: Representatives from governmental bodies, agricultural agencies, and public policy institutions.
- NGOs and civil society organizations: Groups focused on environmental, social, and economic advocacy.
- Private sector and industry representatives: Exporters, coffee traders, and cooperatives.
- Community representatives: Indigenous groups, workers' unions, and collectors' associations.

Each typology, therefore, provides unique perspectives on challenges and opportunities, which should be analyzed in tandem to ensure an inclusive understanding of regional issues.

Another approach could be to organize the information shared by stakeholders into thematic areas. This is particularly helpful since many interviewees address multiple themes within a single answer, which makes it challenging to distill their insights into clear, actionable conclusions. For example, a farmer, when asked about challenges with production, might also discuss access to credit, institutional support, and generational concerns within the same response; or a representative from an NGO might highlight both gender disparities and broader issues related to social infrastructure when responding to a single question about sustainability. Therefore, the inputs can be broadly categorized into areas such as:

- Sustainable coffee production, with a focus on coffee production and processing: insights on farming practices, environmental impacts, and climate adaptation strategies.
- Social and economic dynamics: topics such as access to credit, labor conditions, gender equity, and generational challenges in coffee farming.
- Health and infrastructure: issues related to health care, water, sanitation, renewable energy, and digital inclusion in rural areas.
- Institutional and organizational support: effectiveness of government programs, cooperatives, and other supporting institutions in fostering sustainable practices and market access.

After the responses are grouped thematically or on the basis of stakeholder groups, it is advised to create a summary of findings in a table. Key insights should be presented in the summary table, with an emphasis on gaps identified by interviewees.

d Validating the SDG challenges

Once the SDG dashboard has been created and the insights gained through the qualitative interviews have been systematized, the planners should have a comprehensive understanding of the sustainable development challenges the country and region are facing. As a final step, these findings should be presented to the relevant stakeholders for validation. Ideally, the same groups of stakeholders who have been interviewed should be involved in this validation phase.

The objective of consulting stakeholders during this phase is to (i) validate the findings, ensuring the SDG dashboard and the field interviews capture the reality of coffee-growing communities; (ii) ensure the correct interpretation of the data and the overall SDG assessment (quantitative and qualitative); (iii) add information and nuances when missing.

These consultations can also happen online to help save time and resources. However, if these risks excluding relevant stakeholders, alternative means should be explored. Tools such as PowerPoints, graphs, and visuals can support the presentation of the findings and facilitate stakeholders' engagement. These materials should be shared in advance with those participating in the consultations to grant them enough time for comment. After this validation phase, a document summarizing the consultation results should be shared with relevant stakeholders.

Financing pathways

Uses a seven-step bottom-up unit cost model to estimate the financial resources needed to close SDG gaps at national or subnational levels.

5

Methodology to prepare "Part II: Financing Pathways for the Region" of the Coffee SDG Plan

This part of the Handbook describes the methodology to measure SDG financing gaps in the region and country under scrutiny. It provides a detailed explanation of how the gaps can be estimated, and it is complemented by a technical Annex providing information on the costing tool model and data needs (Annex II).

To measure SDG financing gaps, it is suggested to adopt a bottom-up unit-cost approach, meaning a methodology that relies on the costs of actual inputs. To estimate future financing needs, unit costs are then combined with economic growth and demographics projections. Across the different methodologies, bottom-up unit cost approaches are the best to provide detailed and granular estimates of financing needs; thus, they can be useful to assess financing needs at more disaggregated levels (e.g., local and sectoral levels). They can also be easily implemented even in contexts when there is limited capacity among policymakers and other stakeholders.

To provide planners with a user-friendly and flexible tool for assessing SDG financing gaps, this Handbook presents a bottom-up unit cost approach that allows estimation of SDG financing needs and gaps at the national and subnational level. The model can be readily implemented by stakeholders, notably at the local level. It aims to be transparent and open to improvements.[59]

a A seven-step bottom-up unit-cost approach

The proposed approach for assessing SDG financing gaps in coffee-producing regions is a bottom-up unit cost model. This approach is designed to enable costing at different levels of disaggregation by SDG priority area, budget category, and sector of activity. The model is based on the diagnosis outlined above and consists of seven key steps (Figure 9), with Step 1 detailed in section 4.b.

Step 1: Define a set of SDG priority areas, after having assessed the performance and progress toward the SDGs (e.g., by using an SDG index) in the context under investigation. The priority areas can be identified using existing development plans or frameworks such as the SDG Six Transformations framework.[60]

Step 2: Select a set of actions with transformative impacts on the defined SDG priority areas. The proposed approach uses the key interventions defined in the SDG Six Transformations framework.[61]

Step 3: Identify an array of inputs by determining the desired outcomes of each selected action. The SDG indicator frameworks can be used to identify these outcomes. In the proposed model, the United Nations global indicator framework for the SDGs and SDSN's SDG Index are used to identify the golden set of SDG indicators and conduct this step (Annex II).[62]

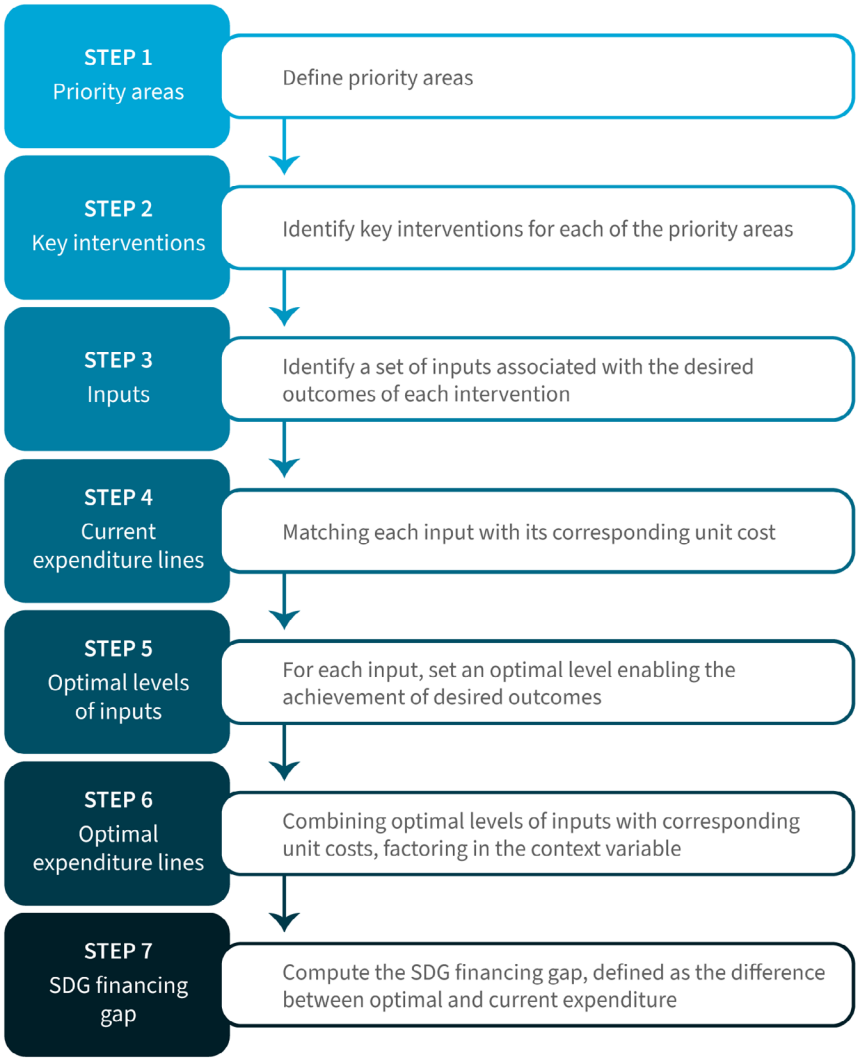
Step 4: Evaluate expenditure lines by matching each input with its corresponding unit cost.

Step 5: For each input, set an optimal level ensuring the fulfillment of the desired outcomes. The optimal levels of inputs can be determined by considering SDG principles such as the SDG targets, the leave-no-one-behind principle of the SDGs, other global targets, or science-based targets (including those defined by human sciences).

Step 6: Combine the optimal levels of inputs with their corresponding unit costs, to determine the optimal expenditure, factoring in the *context*[63] variable.

Step 7: Compute the SDG financing gaps defined as the difference between optimal and current expenditure (see also Annex II).

Figure 9 - Steps to assess SDG financing gaps

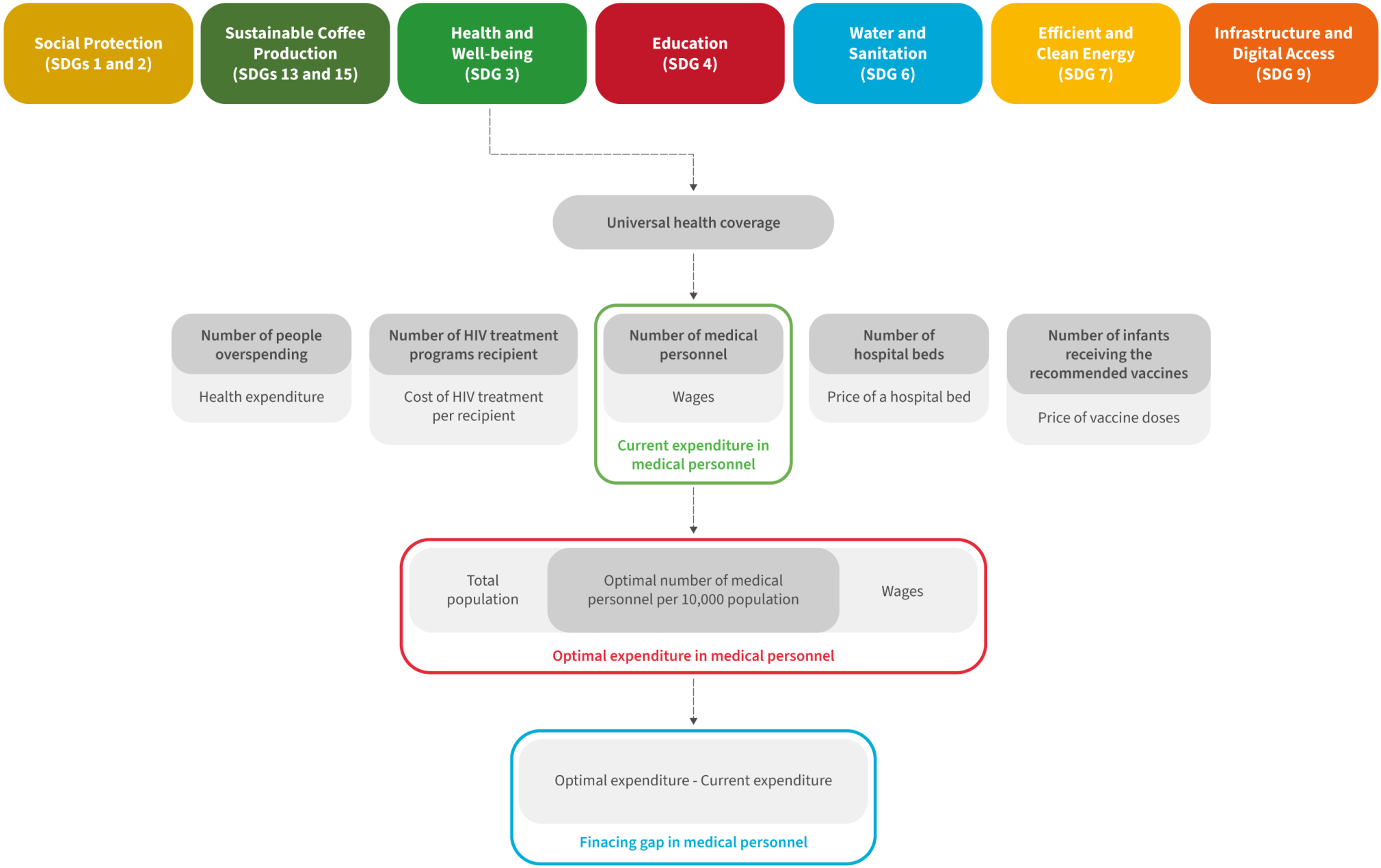


Taking the health sector as an example of a priority area (step 1), it is important to begin by deciding on a key goal—such as making sure everyone has access to health care—and identify a set of interventions to achieve that goal (step 2). Each intervention should be designed to produce a specific outcome, like improving access to essential health services.

To assess how much funding is missing (i.e., the financing gap), the following steps are necessary:

1. Identify the resources (called *inputs*) available (step 3)—such as the number of doctors, nurses, dentists, and pharmacists—and calculate how much they cost based on their wages (called *unit costs)*. The result is the current expenditure (step 4).
2. Estimate what is needed (called *optimal levels of inputs,* or *optimum*). For instance, use international guidelines on how many health workers are needed for a healthy population (step 5).[64]
3. Calculate the cost of meeting this ideal level of care (called *optimal expenditure*) by multiplying the needed number of health workers by their wages (step 6).
4. Compare the ideal cost with current spending. The difference between the two shows how much more funding is needed to meet the goal (step 7).

Figure 10 - Example of an application of the model to the health sector



b Strengths and limitations

This model enables users to easily input data and calculate SDG financing gaps for each geographical zone by input, budget category, and priority area. The model has the potential to be developed into an online tool with enhanced features, notably in terms of data visualization.

The described bottom-up unit cost approach has the advantage of being able to be implemented at different administrative levels, from the national to the more local level (e.g., countries' regions), and adapted to different contexts. Moreover, by relying on the use of data stemming from surveys, census, or public programs, it can promote improvements in data availability and quality. The model also has the advantage of producing highly detailed and disaggregated results facilitating local and sector-specific planning, but also more aggregated results for a holistic assessment. It is also important to stress that the proposed model based on simple accounting formulas can be easily used in contexts characterized by limited resources and capacity among stakeholders.

Despite these strengths, there are some limitations. First, the flexibility and adaptability of the approach could pose challenges for international comparisons in which it is necessary to ensure global relevance and applicability of selected priority areas, key interventions, and associated inputs. Second, the results of the model are sensitive to data availability and quality. Third, the model relies on actions and related inputs deemed transformative for each priority area, thus potentially overlooking excluded factors that could have significant impacts. Fourth, the model could be improved by taking into account the synergies and trade-offs among priority areas, key interventions, and inputs. Finally, the proposed approach could also be enhanced by accounting for shifts in public policies and spending priorities over time.

Investment roadmap

Prioritizes investments based on the territorial diagnosis, distinguishing roles for public and private actors in closing the financing gaps.

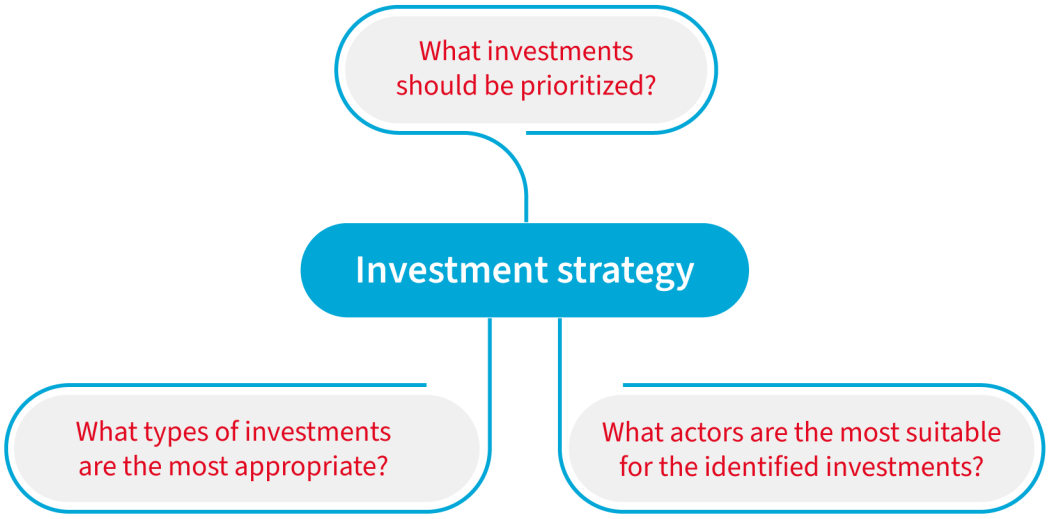
6

Methodology followed to prepare "Part III: Investment Roadmap" of the Coffee SDG Plan

The objective of this Handbook is to present a methodology to identify the investment needs of coffee-producing regions and define corresponding action plans to achieve sustainable development and support the prosperity of coffee farmers. Rather than act as a point of comparison between countries, it aims to allow for an inward-looking analysis of the priorities of the coffee sector. "Part III: Investment Roadmap" accomplishes this goal precisely.

The purpose of this section of the Coffee SDG Plan is to describe how, on the basis of the collected data, planners can create an investment roadmap. The approach suggested in this Handbook is to merge investments in coffee production with investments in coffee-growing communities, focusing on infrastructure investments and social services. Adopting this approach allows for combining the private and public sector economies and to identify the role each actor plays in closing the SDG gaps.

Figure 11 - Developing the investment strategy



a The investment strategy: identifying priority investments

The identification of the sustainability challenges carried out in Part I of the Coffee SDG Plan will inform the development of an investment strategy for the country and region.

The SDG dashboard serves as the primary tool for prioritizing the key challenges faced in the region under analysis in relation to the SDGs. The dashboard highlights critical SDGs, in which further interventions are needed to make significant progress toward achieving them.

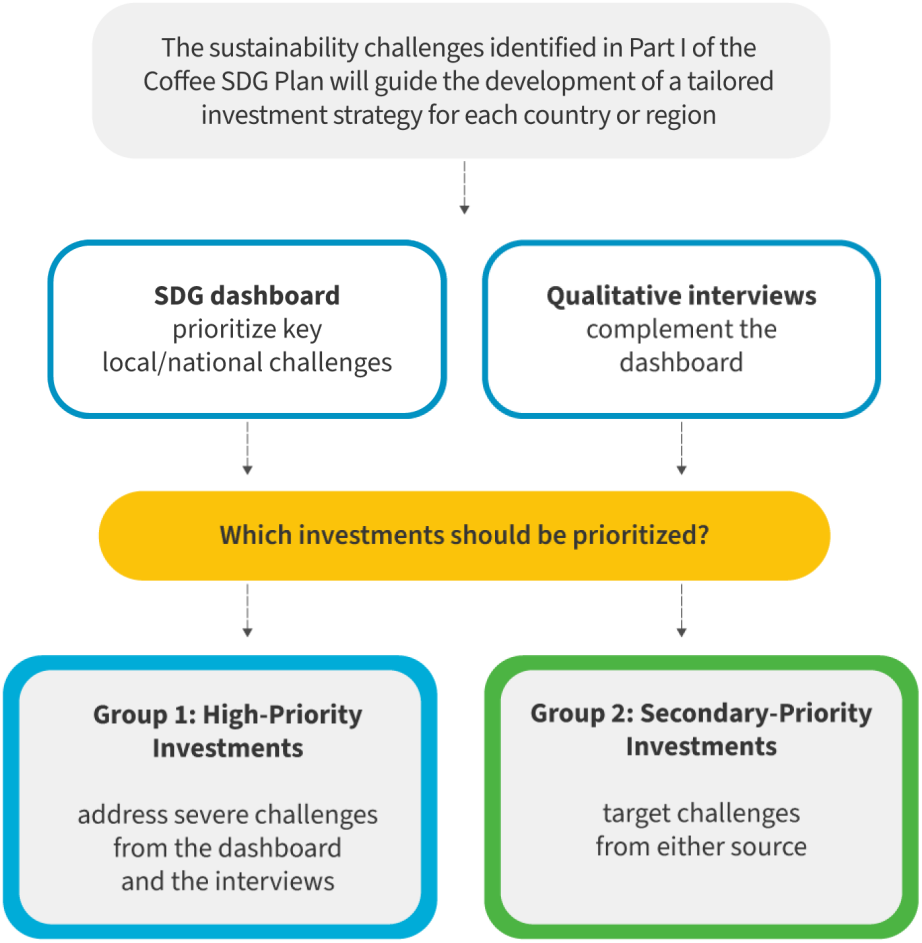
To strengthen this quantitative assessment, the qualitative interviews will complement the SDG dashboard, by either confirming the findings of the dashboard or identifying additional challenges not captured through the quantitative assessment.

Since the investment strategy has to be tailored to the needs of the country and region, each context should be carefully analyzed to identify the most relevant intervention. The starting point for building the investment strategy is: Which investments should be prioritized?

Based on insights from the dashboard and the qualitative interviews, the Coffee SDG Plan will identify two groups of investments:

1. **Group 1 - High-Priority Investments:** These address the sustainable development challenges identified as severe in both the SDG dashboard and the qualitative interviews.
2. **Group 2 - Secondary-Priority Investments:** These address the sustainable development challenges identified through SDG diagnoses or qualitative interviews. Therefore, secondary-priority investments consider discrepancies between the SDG data from the SDG diagnoses and the findings from the qualitative interviews. Such a discrepancy arises when SDG data lack the granularity needed to fully assess the challenges of coffee-growing communities. These investments are not as urgent as high-priority ones, but they still play a key role in overcoming challenges faced in the coffee sector in relation to the SDGs.

Figure 12 - Identifying priority investments



For clarity and ease of reference, it is recommended to develop a visual table that shows lagging SDGs and categorizes them based on whether they require high-priority or secondary investments. This graphical representation allows a better understanding of priority areas for intervention. Below is an example from a pilot Coffee SDG Plan in the region of Brunca, Costa Rica.

Table 4 - High-priority and secondary-priority investments for Brunca, Costa Rica

SDGs	High-Priority Investments	Secondary-Priority Investments
13 (Climate Action) and 15 (Life on Land)	✓	
1 (No Poverty)	✓	
9 (Industry, Innovation, Infrastructure)		✓
6 (Clean Water and Sanitation)		✓

In addition to the identification of the two groups of investment, the Coffee SDG Plans should also include a section on the **enabling environment**, which outlines actions that enhance the effectiveness of the selected investments.

Further description of the investment categories and how to tailor the enabling environment section will be provided below.

b Investment typologies and relevant actors

Building on the SDG-based assessment and the qualitative analysis, the Coffee SDG Plan provides a platform for envisioning the coffee future that producers and other relevant stakeholders in the country want and can realistically achieve, and for determining the steps needed to get there. Once the high-priority and secondary-priority investments are identified, the second and third questions to be addressed are: Which types of investments are the most appropriate to achieve set goals? Which actors are most suitable for the identified investments?

Numerous options are available, so it is advisable to systematize the typologies of investments using three categories:

1. On-the-farm investments for livelihoods
2. Infrastructure investments for the community
3. Social investments

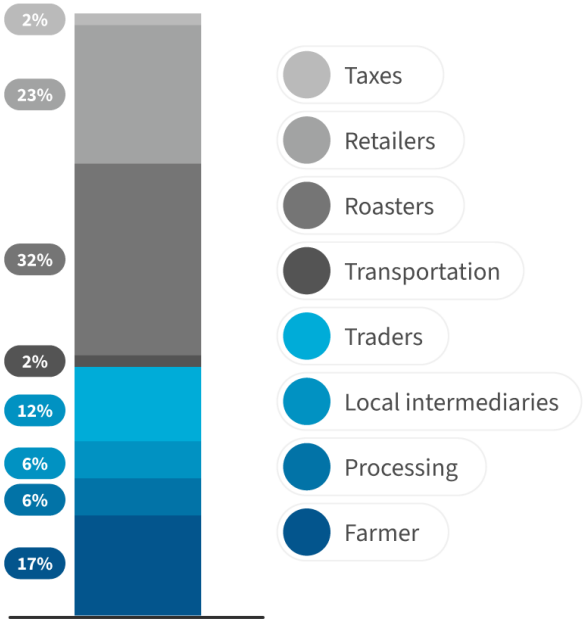
These investment categories are intended as guidance for the identification of the appropriate financing tools and actors that should provide resources.

09 Info Box

Value Chain Distribution

Roasters, followed by retailers, receive the largest share of the value created by the entire coffee supply chain.[65] Thus, value is mostly concentrated in industrialized countries, since they predominantly handle the roasting, exporting and retailing of the product.[66]

Figure 13 - Distribution of Value Created in French Coffee Market[67]



This approach identifies three major areas of opportunity for farmers:

- **Product upgrading:** Focusing on strategies to enhance the sale price of green coffee can provide direct and immediate benefits to farmers. Product upgrading is one way to add value at the top of the supply chain, usually by improving selective picking by hand, or adopting sustainability standards. Data from the ICO suggest that for poor, unstable countries, product upgrading is the most likely path to be successful, it requires less capital and not as dependable on the country's general stability.[68]
- **Upgrade participation in the value chain toward processed products:** Encouraging farmers and producing countries to move up the value chain by engaging in processing activities, such as producing roasted or soluble coffee, can capture more value domestically. This requires more substantial investment and stable institutional frameworks but offers significant long-term benefits.
- **Empowerment of farmers through networking and consortia** facilitates access to inputs, knowledge, technology, and high-value markets, making this an imperative step towards redistribution.[69] Often consortia are created around the adoption of specific production standards and certifications. For example, Fairtrade-certified cooperatives in Peru receive 18.8% as opposed to 12.4% of the value in the conventional system, with producers receiving 16.1% vs. 11.6%.[70] Governments can also play a role in this type of certification. For instance, Cerrado Mineiro, Brazil, has its own Designation of Origin certification for cooperatives which ensures traceability and visibility of the producers working in the region and adds value to the perception of their product.[71] A thorough examination of three separate coffee supply chains (Huila, Colombia; Brunca, Costa Rica; Cerrado Mineiro, Brazil) carried out by CCSI, as well as a review of literature on other regions (Honduras,[72] Guatemala,[73] Uganda[74]), reveals that no two supply chains are directly comparable, therefore, the role of cooperatives will vary greatly depending on the context.

The Coffee SDG Plan gives the opportunity to develop a thorough and granular diagnosis of the coffee sector and its SDG challenges in the specific context from which they arise. Therefore, it can guide the identification of the tailored solutions established to be so important in this industry. Building on its diagnosis, the SDG Plan defines an investment roadmap, providing a blueprint for how the local redistribution process can be financed. The SDG Plan, by determining who is the most appropriate actor to pay for a specific investment, also gives the authors a data-backed platform to stand on when demanding a more responsible role played by private and public actors in the industry.

The first category directly concerns the climate resilience and profitability of coffee production, but the second category looks at the infrastructure needed for the well-being of the community, such as infrastructure for sanitation or to provide clean energy, better transportation, and telecommunications. Finally, the third category covers those interventions targeting essential social services, notably education, health care, and income-support programs for the most vulnerable population. The investment categories could fall under both the high-priority and secondary-priority investments groups, depending on the local context. For instance, on-the-farm investments for livelihoods could be helpful to achieve SDGs that are of high priority or of secondary priority, as exemplified in Figure 14 below.

Figure 14 - Investment categories

Deploying these three investment categories, the Coffee SDG Plans should analyze which of these investments are essential to address the challenges identified in the SDG dashboard and qualitative interviews. The Coffee SDG Plans should also outline the financing tools and key actors needed to achieve these investments. The specific investments, financing tools, and actors may vary depending on the context; general guidance is offered below.

On-the-farm investments for livelihoods

These are investments directly focused on enhancing the sustainability and productivity of coffee production to improve the livelihoods of coffee growers. For a coffee farm to operate effectively, farmers require access to essential equipment. This includes machinery and agrochemicals, climate-resilient plantations, insurance to protect coffee trees against weather events that could damage the harvest, and technical support. Profitable coffee production would ideally allow farmers to cover these costs themselves, but the uneven profit distribution across the coffee value chain means that farmers typically receive the lowest profit margins. Therefore, the identified investments should be directed toward covering the costs of these critical activities, especially for small farms.

Investments falling within this category will assist coffee growers with the following activities:

- Renewal of coffee plantations
- Protection of biodiversity and their associated ecosystem services, such as soil fertility, flood prevention, and carbon storage

- Building infrastructure to store and process coffee, selecting technologies[75] that use natural resources, such as water, more efficiently and have a reduced impact on biodiversity
- Building infrastructure for farm workers, such as housing and bathrooms;
- Purchase of insurance
- Extension services, in particular to advise on climate smart and environmentally positive agricultural practices
- Research and development programs, especially for climate adaptation and natural resource management

Coffee production is experiencing notable reductions in the number of producers, production volume, and yields over the past two decades. Climate change is a key driver of this decline, causing a reduction of the areas suitable for coffee production rising temperatures, variations in weather patterns, and increased vulnerability to pests and diseases. The perception that coffee farming will become increasingly unprofitable or unfeasible over time decreases younger generations' entry into the industry. Therefore, investments aimed at **increasing the resilience of coffee plantations** in light of the threat of climate change are key to maintaining profitability and attracting younger generations to the sector. Such investments would be targeted to renew plantations, including adopting standardized climate-resilient varieties, and integrate climate-smart practices into the production system. At the same time, it is important to recognize that greater species loss is associated with higher-intensity management strategies.[76] Practices aimed at maximizing short-term productivity—such as heavy chemical inputs—negatively affect biodiversity and degrade ecosystem services critical to long-term farm resilience. Therefore, investments should prioritize both climate-smart and biodiversity-friendly practices.

Public subsidies, usually in the form of income support, discount programs, and economic or fiscal incentives, can play a crucial role in supporting the purchase of new seedlings for plantation renewal and the adoption of climate adaptation strategies—such as agroforestry—when applicable to the local context. It is important for subsidies to target small farms instead of large farms to avoid exacerbating inequalities.

Concessional finance[77] can be another useful financing tool, and its structure will depend on local context. Development financial institutions (DFIs) could partner with local commercial banks and rural financial institutions that will lend directly to small farms. Where appropriate, coffee federations can leverage their influence to create and manage their own funds to finance the renewal of plantations and the integration of climate-smart practices.[78]

First-tier financial institutions—in particular, local commercial banks, agricultural banks, and national development banks—play a critical role in mobilizing capital in local currency for farmers and cooperatives. They can provide essential financing for purchasing inputs, seedlings, renewing plantations, or improving irrigation systems: all vital investments for productivity and resilience.

Tightly connected to increasing sectoral resilience, **agricultural insurance** is another valuable tool for safeguarding farmers against yield loss. Index insurance[79] is regarded as the type of insurance with the largest potential for scalability among small farms, but the decision to join an insurance scheme depends on multiple factors, such as

farmers' education, farm size, climate change perception and experiences, and insurance knowledge.[80] Insurance affordability is a significant barrier to its widespread adoption, especially among small farms. Some governments and coffee federations are trying to implement insurance contracts to protect farmers from the adverse effects of climate change, but the industry's role in this space remains limited. Given the distribution of profits along the coffee value chain, the responsibility for mitigating the effects of climate change should be shared in a way that ensures those profiting the most contribute more to the costs, rather than allowing these costs to be externalized onto farmers and governments. Thus, the coffee industry is the appropriate actor to cover insurance premiums. Insurance funding could be included as mandatory in contractual arrangements with local producers, providing insurance coverage when the coffee is purchased.

Coffee growers often experience a disparity in value distribution compared with importing countries, which capture more profits through value-adding activities. To increase their profit margins, coffee growers have been increasingly focusing on enhancing the quality of their coffee production, even though their efforts are constrained by outdated processing facilities. On-the-farm investments aimed at **upgrading processing, storage, and irrigation infrastructure** can significantly enhance coffee quality and enable farmers to move up the value chain. Farmers who rely on outdated processing equipment can diminish coffee quality, but they can also contribute to environmental degradation, particularly through the pollution of waterways from improper cherry-washing processes. Any plan to upgrade processing infrastructure must account for these environmental impacts to ensure environmentally positive coffee production. Several financial tools can effectively support these improvements. If the region has strongly institutionalized cooperatives, **pool funding** could be an excellent tool to build centralized infrastructure for coffee storage and processing. Cooperatives and coffee associations can also support farmers to negotiate **money advances** from traders and the coffee industry. Money advances consist of an initial payment to coffee growers before the actual harvest and the balance paid later. They help farmers cover production costs and potentially invest in the necessary infrastructure to upgrade their production and processing systems. When money advances are given by coffee companies, they can make the final payment contingent on the farmer's adherence to certain farming practices and sustainability standards.

Extension services are another key area for investments aimed at improving coffee growers' livelihoods. **Targeted agricultural extension services and specialized training** for coffee growers are essential to improve the quality of coffee processing and to implement climate-smart practices that increase farmers' resilience and their ability to adapt to climate change. They also support compliance with legal requirements established by third countries (see Info Box 10 on EUDR). These services should focus on equipping farmers with the technical skills required to enhance modern coffee production and with processing techniques. In addition, they integrate business-management skills, enabling farmers to operate more efficiently and profitably. A range of financing options, from public to private, can be explored to enhance the provision of extension services. Fully subsidized extension services should be considered, but the limited government budgets make a combination of private and public services a more effective alternative. Publicly financed extension services would focus on broader agricultural practices, especially those relevant to increasing environmental sustainability and resilience; privately financed technical advice could focus on specific technologies and support the development of business knowledge. To maximize the benefits of industry-led extension services and ensure that technical support programs are effective and respond to farmers' needs rather than companies' commercial interests, technical agreements between the coffee federations and coffee roasters should be put in

place. This would allow the coffee federation to safeguard the interests of the institution and coffee growers. For instance, companies should disclose potential conflicts of interest and implement technical support programs through local partners.

Only large farms may be able to afford the fees for services provided by a technical adviser from the coffee sector (the extensionist), but membership fees for farmers in cooperatives can create a regular revenue stream to sustain extension services for members, reducing reliance on unpredictable government or donor funding. This approach is viable when cooperatives are well-established and farmers can bear the cost of the membership fee. Two other approaches to be explored are characterized by a more prominent role for the private sector. **Bundled services**—multiple products or services offered as a package, often at discount—could be provided by input suppliers. However, these companies are more likely to focus on advising farmers on how to use their products rather than offering guidance on broader agricultural practices that support sustainability and resilience. **Contract farming** can work as a financing tool through which farmers would agree to supply a specified quantity of coffee under agreed terms and conditions before the crop is planted or harvested. The buyer—coffee traders and companies—typically provides support to the farmer, which can include inputs, technical assistance, and guaranteed purchase prices, while the farmer agrees to grow and deliver the product based on the contract terms.

The coffee industry plays a key role in research and development (R&D) since it is well-placed to harness the potential of new technologies. For instance, mobile services could provide weather-related information and guidance to farmers affected by climate change and lacking the know-how to face droughts and pests. New technologies have to be adapted to the local context, and especially given the aging farming population, considerable efforts are required to ensure the uptake of these tools. Therefore, cooperation with local partners, trusted by the coffee growers, would accelerate the adoption of these new tools. To rapidly advance R&D pipelines and projects, precompetitive agreements (i.e., agreements between companies or stakeholders in the coffee value chain to address common industry challenges or promote shared goals, without directly competing in the marketplace) and blended finance schemes could also be considered.

Finally, to continue exporting coffee to the European Union, compliance with the EU Regulation on Deforestation-free Products (EUDR) is critical. Small farms should not bear the administrative and financial burden of compliance, which requires coordinated technical and financial support across public and private actors. Companie—intermediaries and roasters—that place products on the EU market are legally responsible for compliance and must avoid passing costs down to small and medium coffee growers. The coffee industry could pay a premium to small farms and cooperatives to reward compliance efforts. This is especially important during the first years of implementation, to help coffee growers adapt to the new regulatory requirements. The coffee industry, through farmers' associations, should provide technical assistance and trainings to farmers to clearly explain not only the due diligence requirements but also how data should be collected, submitted, and maintained. Precompetitive investments could support joint investments in shared infrastructure, and could facilitate exchange of information to increase value-chain transparency. Producing countries' governments also have a role to play. For instance, through public-private partnerships they could support the creation of digital traceability platforms, providing access to land registries and geospatial databases; meanwhile, the private sector develops mobile applications and user interfaces. In countries with a high risk of noncompliance, concessional capital can help producing countries build traceability systems and land records.

10 Info Box

Compliance with the European Union Deforestation Regulation (EUDR)

The EUDR aims to promote the use of deforestation-free products to reduce the EU's impact on the world's forests, thereby reducing the EU's contribution to global climate change and biodiversity loss. Coffee is a "relevant commodity", namely it is among the commodities covered by the law.

The EUDR establishes three fundamental requirements that relevant commodities must satisfy to be placed on, made available on, or exported from the EU market: (i) they must be "deforestation-free"; (ii) they must have been produced legally, meaning in accordance with the relevant legislation of the country of production;[81] (iii) they must be covered by a "due diligence statement" (Article 3, EUDR). Rules begin to apply for medium & large operators and traders at the end of December 2025, and at the end of June 2026 for micro and small enterprises.

To ensure these requirements are respected, the EUDR requires companies who import, trade and export relevant commodities and products into/from the EU to complete a mandatory "due diligence" process on their supply chains (Article 8, EUDR). At the core of this process are requirements to:

- Identify the area where the product originated;
- Check the land was not deforested after 2020; and
- Ensure the production of the product was conducted legally.

This entails the collection of relevant data - e.g. the geolocation of all plots of land where the relevant commodities was produced as well as date or time range of production (Article 9, Paragraph 1.d, EUDR), a risk analysis, and, unless the risk of non-compliance is negligible, the adoption of risk mitigation measures. Such a "due diligence" process – and the information EU companies rely on to complete it – will be the primary mechanism for demonstrating, checking and verifying compliance with the law's requirements.[82]

Challenges and Opportunities for coffee growers

The EUDR has been praised as part of greater global efforts to address deforestation and related social and environmental challenges. At the same time, however, many critics have questioned whether the EUDR has sufficiently taken into account smallholder farmers, the main workforce of commodity agriculture,[83] including in coffee production.

Main challenges of the EUDR include:

- Burden on smallholders and risk of exclusion from the EU market - The regulation places legal responsibility on EU-based traders, roasters, and retailers, but risks shifting costs and compliance burdens to small-scale farmers, who may lack the capacity to handle complex data systems without significant support. This, in turn, might lead to the exclusion of those who cannot meet traceability or administrative requirements.
- Infrastructure gaps - in countries characterized by inadequate infrastructure to collect land and forest monitoring data, low levels of traceability and a significant presence of smallholders, the industry is likely to encounter difficulties in meeting the EUDR requirements. Among these countries are Ethiopia, Uganda, Tanzania, Kenya, Peru, Colombia, and parts of Central America.[84]

Main opportunities of the EUDR include:

- Greater transparency in supply chains - Improved traceability is potentially beneficial also for smallholders. Roasters, cooperating with local governments and coffee federations, could establish a digitalized system to collect and maintain traceability information that should be accessible also for producers. This will reduce the complexity of the supply chain, which often disadvantages smallholders.[85]
- Potential for capacity-building and inclusion - With proactive industry support and partnerships, the EUDR can drive investments in infrastructure, training, and tools that empower smallholders. Companies can use their due diligence risk assessments to develop targeted support for smallholders in high-risk areas, strengthening sustainable coffee production and addressing deforestation drivers.

Certifications and EUDR compliance

Voluntary Sustainability Standards can assist with EUDR compliance helping with geolocation and traceability, but they do not replace the due diligence obligations for companies. This means that even if a product meets the requirements of a VSS, it will not be automatically considered EUDR-compliant.[86] The same is valid for organic coffee certifications. Although these certifications can support compliance by requiring full traceability along the value chain and preventing organic coffee from being mixed with non-organic, organic certifications are not necessary in line with the EUDR requirements.

Coffee SDG plans and the EUDR

Coffee SDG Plans can support compliance with the EUDR, since the plans can:

- be a tool to conduct country-level assessments and determine readiness for meeting the EUDR due diligence requirements, particularly concerning the effects on smallholder coffee farming families. These assessments should inform the identification of the priority investments, from technical support to smallholders to financial assistance.
- address underlying drivers of deforestation like poverty,[87] although further research is needed to explore the relationship between living income and deforestation.[88]
- support the development of traceability and compliance systems, adapting to the local context the EU implementation Guidelines.[89] This also means clarifying roles for enforcement, conducting risk mitigation activities, such as field audits, where necessary, strengthening coordination between authorities in producing countries and the EU.
- foster transparency on the use and management of geospatial and traceability data, ensuring that smallholders, farmers organizations and local institutions can access this type of information.
- map coffee agroforestry systems, clearly distinguishing them from forests, if they are present in the country. Indeed, while the regulation does not consider agroforestry systems as forests, assessments using the current parameters could make a differentiation between forest and coffee agroforestry systems difficult or impossible.[90]
- drive partnerships among in-country stakeholders as well as between producing countries and the EU
- emphasize the role of the coffee industry to swiftly prepare to meet the requirements of the law, and redirect investments towards technical support and financial assistance to smallholders.

By promoting transparent supply chains, identifying investment needs in coffee-producing regions, and defining corresponding investments for the prosperity of coffee farmers, the Coffee SDG Plans serve as a critical instrument for supporting compliance with the EUDR. These functions of Coffee SDG Plans are not only relevant to the EUDR but can also support compliance with a broader range of emerging regulatory due diligence requirements around the world. This includes frameworks focused on climate, biodiversity, deforestation, and human rights. The same principles - country-level readiness assessments, support for smallholders, traceability system development, data transparency, ecosystem mapping, stakeholder coordination, and industry responsibility - are foundational for meeting due diligence expectations under diverse international legal and policy instruments. As such, Coffee SDG Plans offer a scalable and adaptable model for aligning supply chain practices with global sustainability standards.

11 Info Box

Precompetitive agreements in the coffee sector

There are various types of precompetitive agreements: some focus on research, others on industry coordination, knowledge sharing, on-the-ground activities, or promoting standards.

Precompetitive collaborations in the coffee sector have mainly been directed toward improving the sustainable development of coffee bean production by farmers by adopting certifications aimed at addressing the social, economic, and environmental challenges faced by coffee growers. In this context, precompetitive agreements seek to improve industry standards.

There is little evidence to support the case for these agreements' positive impact on coffee growing communities, especially when they focus on standard promotion and coordination. A comprehensive review[91] of almost 300 articles on certifications and multistakeholder initiatives for sustainability presents two main conclusions: (i) firms join multistakeholder initiatives (MSIs) for market-based motivations, not because people or the environment hold any intrinsic value; (ii) MSIs often produce selective or only marginally positive outcomes for the final beneficiaries.

The Coffee Barometer Report[92] also indicates that MSIs often have limited accountability systems in place, enabling companies to portray themselves as proactive without engaging with the most complex and contentious issues. MSIs do not typically include civil society organizations, labor unions, and Indigenous organizations in producing countries, which further weakens the accountability systems that are essential for this type of initiative to succeed.

The Coffee SDG Plan should pair each investment type with one or more investment tools. Below is a toolkit of the main possible financing tools that could be used for the investments identified above. The chosen financing tool will vary depending on the specific coffee region. The list includes options from an array of alternatives that range from public to private investments.

Table 5 – On-the-farm investments for livelihoods

On-the-farm investments for livelihoods		
Objective of the investment	**Financing tools**	**Actor**
Purchase of seedlings, agrochemicals, machinery	Short-term loans	First-tier financial institutions (local commercial banks, national development banks, agricultural banks)
	Concessional Finance	Financial institutions (FIs), including development FIs that could partner with local commercial banks and rural FIs that will lend directly to small farms
	Public subsidies	Government
Renewal of coffee and adoption of sustainable practices for increased resilience	Public subsidies	Government
	Concessional finance	FIs, including development Fis that could partner with local commercial banks and rural FIs that lend directly to small farms
	Medium to long-term loans and equipment financing	First-tier financial institutions (local commercial banks, national development banks, agricultural banks)
	Funds owned by coffee federations	Coffee federations
Building infrastructure to store and process coffee, for irrigation and for farm workers (e.g., housing, bathrooms)	Pool funding	Cooperatives
	Blended finance	DFIs, first-tier financial institutions, philanthropists, and the coffee industry. The role of the coffee industry should not be limited to providing capital for the development of infrastructure but should also offer technical support and capacity building.
	Money advances	Coffee traders and coffee industry
Purchase of insurance	Public subsidies and fiscal incentives	Government
	Concessional finance	Development FIs that can cofund projects to create insurance tools available to small farms
	Private companies can subsidize the total or a part of the cost of the insurance to lower its price for small and medium farmers	Primarily provided by the coffee industry and insurance partners, and only exceptionally by governments
Providing agricultural extension services to farmers	Public subsidies	Government
	Combination of private and public extension services	Government, farmers associations, and coffee roasters
	Membership fees	Midsize to large farms and cooperatives
	Fees for services	Midsize to large farms
	Bundled services	Industries supplying inputs
	Contract farming	Traders, coffee industry
Support R&D for climate adaptation and natural resources management	Precompetitive agreements	Coffee industry
	Blended finance	Government, multilateral donors, first-tier FIs, philanthropy, impact investors, and private investors
Support compliance with the EUDR for those producers exporting to the EU, including capacity building on the legal requirements, access to digital tools for data, and traceability systems and technical assistance for farm mapping	Direct payments to farmers or cooperatives for compliance	Coffee industry
	Technical assistance	Coffee industry
	Precompetitive agreements	Coffee industry
	PPPs	Government and private sector
	Concessional finance	MDBs, DFIs

Infrastructure investments for the community

These are investments to improve or build upon the foundation of regional infrastructure for water and sanitation, affordable and clean energy, and digital and road connectivity. Infrastructure projects will serve not only coffee growers but the broader community.

Access to water and sanitation services is critical to improve public health, encourage rural development, and sustain valuable water resources especially facing climate change, which has significant connections to the water cycle and overall availability of water. Depending on the local context, investments in aqueduct coverage and wastewater treatment should take priority. These investments should primarily come from public funds, coupled with concessional finance, or blended finance, to ensure universal access to water and sanitation services. If concessional finance is provided, support from MDBs and DFIs should also include technical support. The role of public-private partnerships (PPPs) in the water and sanitation sector should be carefully examined on a case-by-case basis. Although there are potential opportunities, the risks are significant. No contractual arrangement should be advanced if the public authority does not have sufficient capacity to monitor and regulate the full life cycle of the project—from conception and initiation to operation—as well as to guarantee control over tariffs.

An extensive network of all-season and well-maintained roads is also essential to connect communities, promote rural development, and provide access to markets. In many rural areas, roads are the primary mode of transport and are critical to support the delivery of community services, health care, and education. Taking into account the effects of climate change, investments should focus on flood-proof roads. For the development of large-scale road infrastructure, next to public funding, PPPs can provide an additional source of financing. Before engaging in a PPP, the government should carefully assess benefits and disadvantages, evaluating financial and nonfinancial risks of PPPs—such as environmental, social, and governance risks—and establishing mechanisms of accountability and risk management. Thanks to this form of financing, rural areas can develop cost-effective solutions to overcome structural vulnerabilities such as remoteness and exposure to extreme weather events. PPPs could also help to develop expertise and benefit from the innovations of the private sector.

Infrastructure investments to improve digital connectivity should be directed toward expanding the network, especially for those farming communities who are geographically isolated, and creating spaces where free connectivity is available. Many coffee-producing regions are mountainous, which makes providing connectivity difficult and expensive; thus, many rural areas remain inaccessible to internet providers and costly for coffee-growing communities. As with roads, PPPs can provide an additional source of financing.

Finally, investments in energy infrastructure are needed to ensure widespread electrical energy access, including in rural and remote areas. New power generation investment will be in renewable energies, which has the benefit of providing service to isolated communities without access to national power systems. The higher up-front capital cost of renewables makes them sensitive to the cost of financing. When the cost of financing is high, MDBs and DFIs are needed to enable access to long-term low-cost concessional financing, combined with technical support to governments.

Table 6 - Infrastructure investments for the community

Infrastructure investments for the community		
Objective	**Financing tool**	**Actor**
Improve and build roads and digital and energy infrastructure	Expenditures made by the government	Government
	PPPs	Government and private sector
Improve and build water and sanitation infrastructure for coffee communities	Expenditures made by the government	Government
	Concessional finance	MDBs, DFIs

Social investments

These are investments to guarantee farmers' access to basic services and advance progress toward key SDGs. They are typically investments by governments, although in some instances the coffee industry also has a role to play. In particular, the government's role is prominent when it comes to investments in social services, such as in schools and health. These investments are vital for expanding the coverage and quality of services, addressing multidimensional poverty, and improving overall living conditions in the rural areas of the region and country under analysis.

Rural communities often struggle with inadequate access to health care because of hospitals' distance from the coffee plantations and declining quality of medical services in the surrounding municipalities. The often-negative state of road connectivity makes this challenge even more severe. Therefore, depending on the gaps identified, increasing the presence of clinics, even in remote areas, is essential. These are typically public investments, but considering limited budgets, MDBs and DFIs should increase their lending capacity and provide technical support to improve development planning and investment strategies.

Education is a critical area that often requires increased government investment. Depending on local needs, funds could be allocated to subsidize or reduce the cost of books and stationery, which otherwise pose financial burdens for families. Additionally, investments could be directed toward building new schools or improving existing facilities, such as providing internet access. In rural areas, inadequate or costly school transportation often poses a significant barrier to education, particularly for children from coffee-producing families. Addressing these issues could help improve educational outcomes and reduce inequalities. Within this context, public funding to improve coverage, quality of education, and relevant facilities is essential. The financial resources to foster the achievement of SDG 4 on education should primarily come from state funds, coupled with concessional finance or blended finance.

Globally, the majority of coffee growers operate on small-scale farms, which renders them economically vulnerable and often drives many, particularly younger individuals, to migrate to urban areas. Additionally, it is common for coffee producers to forgo contributions for retirement, leading to no pension or minimal pension benefits. With an aging farming population, an increased number of coffee growers will be affected by the lack of an adequate pension system. Considering the challenge of increasing the budget available for pensions, MDBs and DFIs should foster an expansion of the pension system through concessional loans while providing technical support for broader policy reforms.

For the most vulnerable coffee growers, ways to increase income support should be explored. These could be public subsidies providing income support or cash transfers from the coffee industry. **Cash transfers** in this context are payouts from the coffee roasters that

can raise immediate household consumptions during periods of low yields or low prices. By supplementing income, this type of support is critical for preventing poverty and ensuring the economic stability of vulnerable farming communities. Cash transfers can be unconditional or conditional; the latter requires recipients to meet certain requirements—for instance, engaging with specific agricultural practices. Since these interventions do not solve the systemic issue of unfairly distributed value-chain profits, they should be considered a short-term measure, complementary to other public and private interventions presented in this plan.

Finally, in some coffee-growing regions, coffee harvesters—in certain areas, usually migrants or Indigenous people—often live in more precarious conditions than small farmers. If funding is available, coffee federations should consider adopting a protection system for coffee collectors, such as occupational hazards insurance. For the insurance to be widespread, coffee growers will have to declare the number of coffee collectors working on their farm, and once the coffee collector is registered by the coffee federation, their coverage will continue regardless of the fact that the coffee collector changes employers.

Table 7 - Social investments

Social investments		
Objective	Financing tool	Actor
Provide income support to the most vulnerable	Public subsidies	Government
	Cash transfers	Coffee industry
	Occupational hazard insurance	Coffee Federation
Expand social support programs, especially pensions	Public expenditure	Government
	Concessional finance	MDBs, DFIs
Improve access to health care services and education	Public expenditure	Government
	Concessional finance	MDBs, DFIs

12 Info Box

Examples

In the case of Huila, SDGs 1, 4, 13 and 15 were identified as needing high-priority investments. To define what type of investments would be helpful to achieve these SDGs, the Coffee SDG Plans distinguish between the three investment categories described above, including an indication of the financing tool and actor that should provide the needed financial resources. The tables below illustrate this.

Table 8 - On-the-farm investments for livelihoods for Huila to address challenges in connection with SDGs 13 and 15

Huila - On-the-farm Investments for Livelihood		
SDG 13 (Climate action) & SDG 15 (Life on Land)		
Objective	**Financing tool**	**Actor**
Infrastructure to store and process coffee	Concessional finance	Financial Institutions
	Pool funding	Cooperatives
	Blended finance	Bilateral and multilateral donors, Coffee industry
Coffee plantations - upgrading practices for climate adaptation	Concessional finance	Financial Institutions
	Subsides - FAIA Café	Government
Insurance	Fondo Nacional de Estabilización de Café	Coffee Federation
	Direct provision of the insurance/ incorporated insurance	Coffee industry and Insurance partners

Table 9 – Social investments for Huila to address challenges in connection with SDGs 1 and 4

Huila - Social Investments		
SDG 1 (No Poverty) and SDG 4 (Quality Education)		
Objective	**Financing Tool**	**Actor**
Income support to the most vulnarable	Cash transfers	Coffee industry
	Occupational hazard insurance	Coffee Federation
Schools	Public investments	Governments
	Concessional loans	Multilateral Development Banks

Based on the insights from each qualitative interview and the SDG dashboard, it is recommended to include a detailed analysis explaining the rationale behind each identified investment.

Enabling environment

This section of the Coffee SDG Plan should include actions contributing to the effectiveness of the investment roadmap. Key considerations for this section include the following:

Land rights

- *Are there issues related to land tenure?* Lack of land formalization makes investments riskier, limits farmers' ability to secure bank loans as well as, where existent, the full range of institutional support offered by the state, such as subsidies and other benefits. Therefore, actions to formalize land ownership, such as land reforms, renewing outdated and incomplete cadastral information, and integration between cadastral and property registry data, are crucial to guarantee the effectiveness of the investments identified in the Coffee SDG Plan. The reforms to formalize land rights should take into account the significant gender inequality that affects the coffee sector, with a low number of women as producers and landowners. While land reforms are inherently complex, the Coffee SDG Plan can underscore their urgency as a foundational step toward unlocking sustainable and equitable investment.

- *Is land concentration an issue?* In some coffee regions, large farmers are continually acquiring more land, indirectly pushing small farmers away from their lands. In Cerrado Mineiro, for example, less than 20% of the agricultural establishments in Cerrado Mineiro are smaller than 10 hectares, accounting for only 1.7% of the harvested area in the region. Actions to address this include creating programs to support small farms.

Policy coherence and implementation

- *Are there clear interministerial coordination mechanisms for policy implementation?* Often, lack of coordination mechanisms hinders policy implementation. This imbalance is exacerbated by the limited capacity of local governments, particularly in areas with high rurality, to effectively plan and execute development policies. In the case of Huila, for example, actions such as creating a robust interministerial coordination mechanism that aligns rural development policies across sectors were recommended. Other actions may include fostering greater civil society involvement in decision-making processes, which is crucial for developing policies that genuinely reflect the needs of coffee-growing communities, thereby improving the delivery and impact of social services and infrastructure development in the coffee region under analysis.

- *Is there widespread compliance with environmental laws?* Deforestation is a recurring issue in many coffee regions, raising a serious concern for the protection of the environment. Actions to effectively address these issues include a critical need for the government to enhance the capacity and resources dedicated to the implementation of protected areas, as well as to improve the monitoring and enforcement of relevant legal frameworks.

Labor standards and farming population

- *Are labor conditions adequate for migrant workers?* Migrants often work as coffee pickers and lack access to basic social services. In Brunca, for example, coffee pickers, mainly undocumented migrants from Nicaragua and Panama, are limited in their access to social services and have, in general, higher conditions of vulnerability. Actions to address this include government programs, coupled with the support of local civil society organizations, to guarantee these workers services such as access to health care, and provide children of migrants' opportunities for school or preschool.

- *Is the farming population aging?* There is a pressing concern about the aging coffee-farming population, as a significant number of young people are migrating to cities. Although youth are prioritized in existing support programs for coffee farmers, there are no specific initiatives designed to facilitate their entry or establishment as coffee farmers; this is an important gap that the Coffee SDG Plan should seek to address. Moreover, unless coffee farming becomes more profitable, it will remain unattractive to younger generations. Enhancing profitability is essential to positioning coffee as a viable and appealing livelihood option.

- *Is gender inequality an issue?* Gender inequality in coffee regions is reflected in a low number of female producers and landowners. Women struggle to access financing, since land ownership is typically in the hands of men, and face traditional gender challenges: a lack of child care networks and the presence of domestic violence. Actions such as gender-focused institutions and policies should be prioritized in rural areas to address this issue.

Business risks and access to finance

- *Are there untapped market opportunities for coffee growers, internationally and domestically?* By supporting coffee growers in securing access to broader markets, including through e-commerce, they can achieve better prices for their coffee, which in turn empowers them to improve their livelihoods. Actions such as collaborating closely with the coffee federations to establish strategic partnerships between coffee roasters, exporters, and producers are key to improve market access for coffee growers. Other actions include fostering the creation of cooperatives or farmer alliances that allow farmers to market their coffee as a collective, enabling them to negotiate better terms with roasters and exporters. Another venue to empower farmers to reach consumers directly is the development and promotion of e-commerce platforms. Digital tools can create new revenue streams and reduce dependency on traditional supply chains. Institutional support from cooperatives and coffee federations in navigating import requirements, managing logistics, ensuring regulatory compliance, and defining and implementing a plan for strategic marketing, would streamline the export process required by direct-to-consumer sales.

- *How can business practices be changed for effective sharing of risks along the supply chain?* Coffee growers share the biggest burden across the coffee value chain; therefore, mechanisms to share such a burden with coffee traders and companies should be explored. For instance, long-term fixed-price contracts are agreements between farmers and/or cooperatives and traders to protect the farmers against price volatility. The parties of the contract agree on a fixed price over a certain period of time, and this allows coffee growers to have a stable income, thus improving their financial planning. Agreeing on a pre-agreed floor price can be another valid option; it ensures that farmers receive a guaranteed amount for their coffee, regardless of market fluctuations. This could be implemented by the coffee industry and traders and coffee farmers who can agree on a minimum price to be established in a contract.

- *Do coffee growers have easy access to credit?* Improving access to credit for small farmers remains a significant challenge globally because of the inherent risks of agricultural lending. Limited credit availability for small farmers hinders their ability to make necessary on-the-farm investments, pay fair salaries,[93] and guarantee decent living conditions to coffee pickers and their families. First-tier financial institutions are well positioned to address this gap, in particular offering capital in local currency for inputs, renewing plantations, improving irrigation systems, or upgrading infrastructure. However, first-tier institutions face significant constraints. They often lack innovative financing instruments tailored to agriculture, are risk averse, and may not have the sector-specific expertise needed to assess and support coffee-related investments. As a result, even when they are present in rural areas, their lending to coffee growers remains limited. To enhance their effectiveness, larger financial institutions—such as MDBs and donor agencies—can play a catalytic role. Through blended finance instruments, including credit guarantees, first-loss capital, and targeted technical assistance, they can remove the risk from agricultural lending, strengthen institutional capacity, and encourage first-tier institutions to expand their outreach to coffee-growing communities. Government and DFIs can provide guarantees for loans to support those farmers who would not have access to credit otherwise or would receive a loan with less favorable terms. Additionally, long-term contracts between coffee growers and the trader/coffee industry can serve as collateral, providing lenders with added security. These mechanisms are essential to make credit more widely available to coffee growers and sustain an activity that faces fundamental cash flow mismatches.

- *Is financial literacy among farmers a key issue that must be addressed?* Financial literacy is often an overlooked aspect of support for farmers, yet it is essential for their economic resilience. Small farmers frequently prioritize immediate farm needs over long-term financial planning, making them vulnerable to economic challenges. Actions to address this issue include fostering collaboration from organizations with financial expertise to create and deliver comprehensive financial literacy training programs.

C Consultations with stakeholders to ensure alignment on the investment roadmap

Before incorporating the investment strategy into the Coffee SDG Plan, it is essential to engage in comprehensive consultations with the relevant stakeholders. These consultations are key, as they: (i) validate the assumptions and data underpinning the strategy, ensuring their accuracy and relevance; (ii) help identify potential challenges and opportunities that may not have been initially considered; and (iii) support the feasibility assessment of the proposed investment strategy thanks to stakeholders' inputs. Upon completion of the consultations, there will be alignment between the strategy and the needs and insights of key stakeholders. This will guarantee that the Coffee SDG Plan achieves broader acceptance among the stakeholders and has a higher likelihood of successful implementation.

Stakeholders

Stakeholders will vary depending on the type of investments and financial tools identified in the investment roadmap. Below are some examples of the stakeholders that should ideally be consulted during this phase:

- **Coffee farmers:** They are the main beneficiaries of the investment strategies. It is advisable to consult with small-scale farmers at the very least, and with medium- and large-scale farmers, when possible, to ensure that different views are captured.
- **Coffee federations:** If the region or country under analysis has a well-established coffee federation, consulting with them is essential. Coffee federations serve as a vital hub for information and coordination among different stakeholders within the sector. They are often well-positioned to provide an overview of the issues faced by some stakeholders within the sector and provide general insights into the feasibility and potential impact of the investment strategy.
- **Cooperatives:** If the studied country/region has well-established cooperatives, engaging with them can provide valuable feedback on the practical feasibility of some of the financing tools identified in the investment roadmap. Additionally, cooperatives often have direct and frequent interaction with coffee farmers, offering insights into their needs and capacities, particularly in cases where it is not possible to consult directly with them.
- **MDBs and DFIs:** MDBs and DFIs are key players in financing several investments mentioned above, especially for infrastructure and social services. Gaining a clear understanding of their operations and the processes involved in requesting their financial involvement, as well as the barriers they face to provide concessional capital is crucial to validate the feasibility of implementing the investment strategy.
- **Local financial institutions:** Local banks should be actively engaged in lending to coffee-growers. However, their support to coffee farmers is often hindered by a lack of innovative financing instruments tailored to agriculture and limited sector-specific expertise and their risk aversion. MDBs have a critical role to play to address this gap particularly through blended finance mechanisms and technical assistance.

- **Coffee industry:** Engaging with the private sector enhances the likelihood of securing buy-in for investments in which the coffee industry plays a critical role. As a result, this approach significantly improves the roadmap's potential for successful implementation. Furthermore, multinational companies can cooperate with local financial institutions to enable the use of their purchase agreements or invoices as collateral, thereby improving access to finance for coffee producers.

Template questions

Semistructured interviews are helpful to gain insights on the appropriateness of the investment roadmap. Questions should be tailored to the specific stakeholder interviewed, and adapted to the local context. The following template provides examples of questions that could be used during consultations with coffee growers. Although in English, questions should be asked in the local language.

Table 11 - Template questions for interviews

	Typology of investment	Questions
On-the-Farm investments for livelihoods	**Purchase of seedlings, inputs, machinery**	• Is microfinance available for farmers? • Do local banks offer loans to coffee growers? If yes, are these low-interest loans or regular loans? • Do contract farming arrangements exist in Brunca?
	Increasing plantation resilience to climate change	• Are government programs available to provide resources for adapting coffee farming to climate change? • Is concessional finance available to renew plantations?
	Agricultural insurance	• Is this type of insurance affordable? How popular is it among coffee growers? • What programs support farmers' uptake of agricultural insurance? • Do you cooperate with coffee multinationals for this service?
	Providing agricultural extension services to farmers	• How are extension services being funded? • Do you think it is necessary to increase funds for this purpose? If yes, what strategies are you exploring? • Do coffee multinationals provide extension services (maybe as part of their contractual arrangements)? If not, would you consider this appropriate?
	R&D for new technologies	• Do you see a role for the coffee industry? • Do you cooperate with other research institutes, also abroad?
	Support producers' market opportunities	• What strategies are you using? • Is direct-to-consumer selling (including e-commerce) an option for farmers in Brunca? If yes, how are you supporting it?
Social investments	**Income support to the most vulnerable**	• Are you aware of cash-transfer programs financed by coffee companies?
	Pensions	• Did you contribute to a retirement program? If not, why?

7

Conclusions and recommendations

This Handbook presents a comprehensive methodology to identify the investment needs of coffee-producing countries with the aim of promoting prosperity among coffee growers. Its aim is to identify priorities and use these as a basis for setting out plans that are actionable and easy-to-follow. The methodology by which this Handbook (and in turn, the Coffee SDG Plans) accomplish this task is by quantifying gaps between current and ideal progress toward the SDGs. Although comparisons to other countries' average progress toward the SDGs is sometimes required, the plans themselves should not be inherently comparative. Users of this guide should understand that this is a collaborative process, not a competitive one; each region has a unique path toward achieving sustainable development, benefiting from diverse partners along the way.

Closing the SDG gaps requires a multistakeholder system that involves local coffee growers; farm-based organizations, including cooperatives, national and regional coffee federations, and the World Coffee Producing Forum; international coffee companies and traders; civil society organizations; academic partners; local and national governments; the International Coffee Organization; and financial institutions, including commercial banks. The Coffee SDG Plans establish a clear direction and a set of actions, providing a supportive framework in which the multistakeholder platform can succeed.

Figure 15 - The multistakeholder system

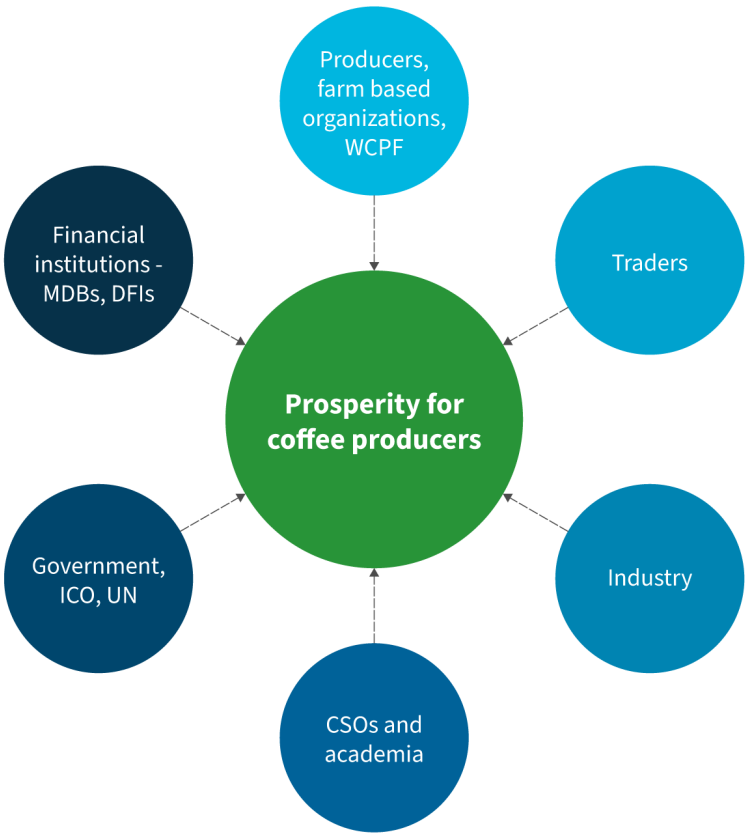


Table 12 - Description of the actors in the multistakeholder system and their roles

Actors	Role
Coffee industry (roasters, retailers, traders)	The private sector plays a critical role to finance on-the-farm investments for livelihoods, in particular to boost efforts to adopt environmentally positive agricultural practices, to adapt to climate change, and increase overall resilience. Actions include: • Finance R&D programs to improve irrigation systems, increase climate adaptation and resilience, and develop new technologies (e.g., soil sensors, weather advisory systems) • Provide insurance to small farms at no cost or at a lower price • Provide technical support, intended as extension services and financial and business literacy for coffee growers The goal of these initiatives is to play a responsible role within the sector, and support ways in which risks are more equitably distributed along the coffee value chain.
Governments	Government priorities for resource mobilization are context specific. In some countries, expanding infrastructure for sanitation, energy, roads, and telecommunications, or improving access to social services—specifically education, health care, and social protection systems—will be critical, while in others, such as Colombia, strengthening security may be a prerequisite for sustainable development. Governments are also responsible for putting forward and implementing policy and legal reforms that allow coffee growers to achieve a living income, such as designing tools to reward farmers who adopt good environmental practices, or developing capacity-building programs to educate coffee growers on new market opportunities domestically and internationally, and help them navigate regulatory requirements, or providing technical assistance to farmers for maintaining or increasing productivity sustainably.
Donors	Given limited state budgets, the key role of MDBs and DFIs is key to build infrastructure for the communities and to improve education, health care, and social protection systems. MDBs and DFIs should increase their lending capacity and provide low-cost long-term capital. They should also increase efforts to secure cofinancing, mobilizing resources from other public and private actors through blended finance. MDBs should complement funding-related services with technical support and capacity building and advice on policy and governance reforms.
ICO and UN	As the main intergovernmental body responsible for addressing the challenges facing the coffee sector globally, the ICO is the right actor to support collaboration among the different stakeholders. The ICO is already overseeing efforts to bring together the governments' and the private sector's perspectives and to identify common priorities. Next steps could be to open this partnership to other stakeholders as well, creating a truly multistakeholder system. The ICO often cooperates with the U.N., especially with the United Nations Development Programme in several projects. ICO and U.N. together have the potential to create a multistakeholder forum for dialogue, including by mobilizing research partners, civil society members, impact investors, and other international organizations.

Actors	Role
Civil society organizations (CSOs), research centers, and academia	Research centers and academia have an important role to play, including developing new disease-resistant and heat-resistant varieties, supporting tree renovation, and providing or supporting extension services, as well as providing knowledge and thoughtful guidance for effective decision-making processes. With coffee farmers everywhere in need of climate services to help them manage their risks, they require information and guidance on new varieties and agricultural practices. In some areas, they will need to understand the potential changes in coffee suitability, to help inform the long-term decisions that are necessary for coffee farming. CSOs often provide knowledge and technical support to farmers, through training and capacity-building activities. When working with academia and research institutions, they can support the research through real-world insights and connecting researchers with coffee communities. Advocacy is also helpful to foster policy and legal reform in support of small farms, and sustainability more broadly.
Producers, national grower federations, small-farm representatives, farmworker unions	Producers, producers' associations, and their representatives shoulder the majority of the risks with little returns. It is critical to ensure that participation in multistakeholder platforms is extended not only to large and medium-scale farmers, but also to smallholders, who are the most vulnerable and often marginalized in these processes.

Recommendations and call to action

Without sustained collective action, and without strategic local and national planning and investments, more producers will be thrown into or remain in extreme poverty. The prosperity of the coffee sector relies on healthy and viable farmers, including small farms; this business-as-usual scenario is not sustainable for them or for the industry.

This Handbook presents an SDG-based methodology to conduct a combined assessment of livelihoods, infrastructure, and social services, with the objective to develop a vision of public and private investments that will help address the identified SDG gaps. Closing gaps will involve all stakeholders: local coffee growers, farm-based organizations, international coffee companies, academic partners and research institutions, civil society organizations, ICO, and local and national governments.

The preparation of the Coffee SDG Plan should be followed by the **creation of a multistakeholder platform** responsible for the implementation of the investment roadmap presented in the plan. As illustrated in this Handbook, each actor will play a different role, but all stakeholders should collaborate to coordinate actions more effectively and scale up best practices. This is also in line with the latest developments at the 2024 G7, which marks the establishment of the **Global Coffee Sustainability and Resilience Fund** for "encouraging innovative approaches that attract greater investment, focusing on the most vulnerable countries and communities, while also securing the resilience of the global coffee industry."[94]

13 Info Box

Global Coffee Sustainability and Resilience Fund (GCSRF)

The GCSRF was launched in 2024 by the ICO at the G7 Development Ministers' Meeting in Pescara, Italy. Designed as a way to attract greater investment into coffee-producing countries, the ICO provides a global layer of support to the public and private projects already underway.

Indeed, the main function of the fund is to act as a uniting initiative behind which the Food and Agriculture Organization, the International Fund for Agricultural Development, the United Nations Industrial Development Organization, and G7 and partner countries have gathered. The establishment of the fund signals the G7's further commitment to this issue after acknowledging coffee as a strategic value chain earlier in the year.[95]

The GCSRF relies mostly on blended finance solutions, calling on public actors to provide investment in public goods like research and development, policy reforms, and support to vulnerable populations like smallholder farmers, women, and the youth. The private sector takes a complementary role, providing project financing, technology, and know-how to aid implementation.[96]

The following next steps should be taken:

1. Governments at the national or local level should lead the preparation of Coffee SDG Plans following the methodology presented in this Handbook, including:
    a. Collect data to identify sustainability needs and estimate funding gaps
    b. Define an investment roadmap clarifying the role of the public and the private sectors
    c. Promote a participatory process throughout the preparation of the plan to ensure stakeholders' buy-in
2. Create a multistakeholder platform for the implementation of the investment roadmap presented in the Coffee SDG Plan. A common agenda should:
    a. Establish priority actions, projects and clear timelines
    b. Identify opportunities to mobilize private sector capital for initiatives related, at least, to digital technology for climate services and irrigation systems, and R&D for climate resilience
    c. Explore options for public-private sector partnerships, including mixed funding schemes for crop insurance and extension services
    d. Identify policy and governance reforms that increase coordination among ministries and agencies, foster active civil society participation, reduce conflict around land, and decrease anthropogenic pressure on natural ecosystems
    e. Enhance transparency throughout the coffee value chain and identify the business practice modifications that will most likely promote a more equitable distribution of risks across the value chain.
3. Ensure coordination between the multistakeholder partnerships established for the implementation of the Coffee SDG Plan and global-level initiatives, including the Global Coffee Sustainability and Resilience Plan, surfacing lessons learned, highlighting country-specific investment needs, and contributing to the design of tailor-made solutions.

Annex I

Interview protocol for the collection of qualitative data

I. Introducing the project to interviewees

This research is part of a project to develop a Handbook to prepare SDG-Based National Coffee SDG Plans. The objective is to create a comprehensive guide for coffee federations and government agencies. These will provide detailed indications on how to create national and regional development plans that can form the basis of a financing strategy to achieve sustainable development in coffee-producing regions.

The interviews provide a qualitative view of regional sustainability challenges. Through this interview, we want to understand local challenges and perspectives to inform the development of the Handbook, leading to more comprehensive and effective strategies.

II. Interview template

1. Basic information

Interview number	
Date and time	
Location	
Type of institution	
Name of organization	
Name of interviewee	
Position of interviewee	
Telephone	
E-mail	
Address	

2. The institution

a. Introduction

i. Please provide an overview of your organization and its main activities.

b. Context in which the organization operates

i. What are the main challenges, barriers, weaknesses, and threats for the organization to do its work with farming communities?

ii. What are the main needs for the organization to do its work better?

3. The coffee-growing communities

a. The institution's work with coffee-growing communities

i. Describe the types of work you carry out with the coffee-growing communities.

ii. What are the main challenges faced by coffee-growing communities?

iii. What are the main needs of coffee-farming communities?

iv. What does your organization need to do to support-coffee farming communities?

v. Where does your organization obtain data on development indicators. Does your institution generate data? How does it do this?

vi. Which channels of communication do you have with coffee-growing communities?

b. Investments in sustainable coffee communities

i. What are the main challenges, barriers, weaknesses, or threats for coffee-growing communities in the region?

ii. In general, what do you think should be done to solve the problems of coffee-growing communities?

iii. What investments are needed or would be more effective to improve coffee producers' situation?

iv. Where could the funds for this come from?

c. Future Trends for Coffee-Growing Communities

i. Without changing anything about the current situation, how do you imagine the future of coffee-growing communities?

ii. Would you agree that urban migration is an existential issue facing your community? If so, how do you envision drawing more people to this line of work?[97]

iii. If these problems are solved, what do you think would be the future of coffee-growing communities? What opportunities would emerge?

iv. Are there any emerging trends or opportunities that could shape the sector?

d. Focus on gender issues

i. To what extent is gender taken into account in initiatives targeting coffee farmers?

ii. What are the most pressing problems faced by women in coffee producing communities?

4. Specific questions section for focus areas

a. Sustainable Coffee Production

i. What production challenges do farmers face (wages, fertilizer availability, productivity, vulnerability to weather patterns, use of mobile data in farming practices, etc.)?

ii. What investments are required to improve the sustainability of coffee production?

iii. How can farmers' incomes be improved?

iv. Is there a generational changeover and what are the alternatives?

v. What is the role of migrants in coffee production?

vi. Are there identifiable gaps in policy, legislation, and regulation related to coffee production? Are there any efforts to reform policies?

vii. What are the main environmental problems connected with coffee production?

b. Universal lower secondary education

i. What are the main challenges in education for farmers and their families?

ii. What can be done to improve it?

iii. What investments are required?

c. Universal Basic Health Care

i. What are the main challenges in Universal Basic Care for farming communities?

ii. What can be done to improve it?

iii. What investments are required?

d. Access to renewable energy

i. What are the challenges in energy access for farming communities?

ii. What can be done to improve it?

iii. What investments are required?

e. Clean water and sanitation

i. What are the main challenges in clean water and sanitation for farming communities?

ii. What can be done to improve it?

iii. What investments are required?

f. Digital access

i. What are the main challenges in digital access for farming communities?

ii. What can be done to improve it?

iii. What investments are required?

g. Social protection

i. What are the main challenges in social protection for farming communities?

ii. What can be done to improve it?

iii. What investments are required?

5. Any other information to share

a. Where to find more information on this topic?

b. Any useful contacts you can point us to?

c. Any projects of interest being developed?

d. Collaboration and partnerships?

e. Other organizations like yours?

Annex II

The costing tool

a. The model

In Chapter 5 - Methodology to prepare "Part II: Financing Pathways for the Region" of the Coffee SDG Plan—this Handbook describes the methodology to measure SDG financing gaps in the region or country under scrutiny. This Annex further details some technical aspects of the costing tool, including the formulas to calculate the SDG financing gaps, the criteria adopted to select the SDG indicators, and the key data sources.

For each input, budget category, sector of activity, and priority area, the SDG financing gap of a given geographical zone in a given year is calculated as the difference between the amount of total expenditure needed to reach its associated optimum (optimal expenditure) and the amount of current expenditure:

$$Financing\ gap = Optimal\ expenditure - Current\ expenditure \quad (1)$$

The optimal and current expenditures are calculated at the input level as follows:

$$Optimal\ expenditure = Context \times Unit\ Cost \times Optimum \quad (2)$$

$$Current\ expenditure = Input \times Unit\ Cost \quad (3)$$

The optimum is the ideal level of input that should be reached to achieve better SDG outcomes. These optimal levels of inputs are set upon the SDG targets, the "leave-no-one-behind" principles, global targets and science-based targets. For instance, following the leave-no-one-behind principle, the optimal number of the old-age population who should receive an old-age pension is the total old-age population, to ensure better social protection and progress toward the SDG target 1.3. The future optimal expenditure is computed using projected context data for every year up to 2030.

The current expenditure is computed by assuming the level of expenditure (i.e., input as a share of context) as constant over time. For example, if 60% of the old-age population receives old-age pensions in 2025, we assume this proportion remains unchanged over the years up to 2030.

Budget category and SDG area-level estimates are computed as the sum of input-level estimates.

b. The golden set of indicators

In section 4.b a list of 34 SDG indicators has been presented. While the broad list is helpful to get a better understanding of the sustainability challenges in the region under investigation, for the purpose of creating an **actionable** financing tool to calculate the SDG financing gaps, a so-called "golden set of indicators" should be created. Containing fewer indicators than those selected in section 4.b, the budgeting tool becomes simpler and operative, while remaining adequately accurate to estimate the financing gaps.

To identify the golden set of indicators, the following **criteria** were used:

1. **Selection of headline sustainable development indicators**: This identifies the indicators most clearly connected to the name of their priority area. For example, 1.3 measures the population covered by *social protection* systems, matching its "social protection" priority area.
2. **Prevention of redundancy between indicators**: Redundant indicators can be omitted in this shorthand for clarity of purpose. For example, 1.1 measures the population below the international poverty line, while 1.2 measures the population below the national poverty line. They differ only in metric, so only one should be included.
3. **Measurability at the local level**: Following directly from the previous criterion, some indicators will be more directly relevant at the local level. 1.2 is chosen over 1.1 because the national poverty level is more often included in state or regional data than the international level.
4. **Relevance and capacity to use indicators in the costing exercise**: Not all indicators are relevant or possible to be included in a calculation of financing gaps. For example, although an assessment of performance on math and language exams (4.1.1) is distinct from completion rate (4.1) and useful in the overall Plan, there is no *x* amount of money that can increase student performance by *y* amount, therefore it is omitted here.
5. **Interlinkages with other SDG indicators**: Similar to redundancies within each priority area, this criterion requires a final check across all areas. For example, the assessment of sustainable agriculture in the "social protection" priority area can be dropped, seeing as it is linked to the "sustainable coffee production" priority area already.

Below is an example from Huila, Colombia, which is a subset made of only 17 out of the initial 34 SDG indicators (Table 12).

Table 13 - The golden set of indicators

Priority areas	Goal	Target	Indicator description
Social protection	SDG 1	1.2	Proportion of population living below the national poverty line, by sex and age
	SDG 1	1.3	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable
	SDG 1	1.5	Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)
	SDG 2	2.2	Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)

Sustainable coffee production	**SDG 15**	**15.1.1**	Forest area as a proportion of total land area
	SDG 15	**15.1.2**	Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type
Health and wellbeing	**SDG 3**	**3.2**	Under-five mortality rate
	SDG 3	**3.8**	Coverage of essential health services
Education	**SDG 4**	**4.1**	Completion rate (primary education, lower secondary education, upper secondary education)
Water and sanitation	**SDG 6**	**6.1**	Proportion of population using safely managed drinking water services
	SDG 6	**6.2**	Proportion of population using (a) safely managed sanitation services and (b) a hand-washing facility with soap and water
	SDG 6	**6.3**	Proportion of domestic and industrial wastewater flows safely treated
Efficient and clean energy	**SDG 7**	**7.1**	Proportion of population with access to electricity
	SDG 7	**7.2**	Renewable energy share in the total final energy consumption
Infrastructure and digital access	**SDG 9**	**9.1**	Proportion of the rural population who live within 2 km of an all-season road
	SDG 9	**9.C**	Proportion of population covered by a mobile network, by technology

c. Data sources

Sources for the data will vary depending on the country or region under investigation. For instance, in a region like Cerrado Mineiro, Brazil, data are organized by municipality; therefore, data need to be aggregated for the 56 municipalities that comprise the Cerrado Mineiro region to develop a comprehensive regional analysis.

Often data will be accessed through a variety of government sources, and the most recent available data should be used. Demographic information, including population distribution by age and sex, is available from the demographic census usually conducted by statistical offices. For other data, e.g. education, social protection, healthcare, or infrastructure, the relevant government agency or institution will ideally provide reports, datasets, and detailed indicators on official websites. However, it might be necessary to break down or aggregate data into the desired region, as not all sources provide information at the municipal, state, or neighborhood level, requiring additional processing to tailor the data to specific regional analyses. When data are not publicly available, it is recommended to work with a local team of experts or get directly in contact with officials who may have access to the data.

14 Info Box

Example of data collection for Cerrado Mineiro, Brazil

To compute unit cost indicators in Cerrado Mineiro, a combination of available datasets from reliable sources was used and assumptions were applied where data gaps existed. Below a few examples of the approach followed in two key areas:

- **Education:**
  - Expenditure categories included **preprimary and primary education, secondary education, and tertiary education**.
  - Input used: Total **number of teachers** in preprimary, primary, and secondary education, sourced from the **Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (Inep)**.
  - Data limitation: No municipal data for teachers in tertiary education were available, so the total teacher count across all levels in 2023 was used.
- **Health:**
  - Expenditure categories included **medical products, appliances, and equipment**, as well as outpatient and hospital services.
  - Inputs: **Number of health care workers** and **number of infants** (sourced from the 2022 Demographic Census, Table 9514).
  - Data limitation: No information was found on healthcare workers per municipality.

Endnotes

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6 Ibid.

7 On the contrary, current trends point to life in cities being more desirable in Latin America. According to the World Bank, many LAC countries have risen from under 50% to over 80% in urban areas over the last 40 years. Costa Rica, for example, has seen the rate more than double from 34% to 81%. See: "Data Page: Share of the population living in urban areas," Our World in Data, UN Population Division, 2025, https://ourworldindata.org/grapher/share-of-population-urban.

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15 Even if the most recent report is outdated, it should still be taken into account as important context, especially if stakeholder interviews are planned. Figures and statistics from outdated reports should be clearly flagged to the reader as such to avoid confusion.

16 Coffee falls under the scope of the EU Deforestation Regulation, as detailed in Info Box 10. In contrast, the EU Carbon Border Adjustment Mechanism does not apply to coffee, as it targets high-emission sectors.

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