

Evaluation Report

GIZ

Final Evaluation of the Coffee Innovation Fund

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Abbreviations

BMZ	German Federal Ministry of Economic Cooperation and Development
CCA	Climate Change Adaptation
CIF	Coffee Innovation Fund
CCM	Climate Change Mitigation
DAC	Development Assistance Committee
EUDR	EU regulation to prevent deforestation
GAP	Good agricultural practices
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH
ICT	Information and Communication Technology
INA	Initiative for Sustainable Agricultural Supply Chains
IR	Inception Report
MoU	Memorandum of Understanding
ToC	Theory of Change
ToR	Terms of Reference
UCDA	Uganda Coffee Development Authority

1 Introduction

Mainlevel Consulting AG (Mainlevel) has been contracted by the Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH to conduct an evaluation of the project “Coffee Innovation Fund”.

This evaluation report provides an overview of the project’s results as well as learnings and recommendations to inform a possible follow-on project. Findings are structured along the GIZ evaluation criteria, based on the DAC-Criteria, namely: Relevance, Coherence, Efficiency, Effectiveness, Impact, and Sustainability.

The evaluation will place a particular emphasis on the Effectiveness criterion where the project has the highest interest in knowledge.

2 Background on the project

The project “Coffee Innovation Fund” (CIF) has been implemented in two phases between 06/2019 - 10/2020 (phase 1.0) and between 03/2021 - 06/2023 (phase 2.0) under the Sector Program “Initiative for Sustainable Agricultural Supply Chains” (INA). The overall budget of the project is EUR 4.625 million (phase 1.0: EUR 1.825 million, Phase 2.0: EUR 2.8 million) and is financed by GIZ contributions funded by the German Federal Ministry of Economic Cooperation and Development (BMZ) in kind via service contracts or procurement (up to EUR 50,000 per project). During the initial project phase, a total of 21 projects were supported across four countries: Ethiopia (4), Indonesia (8), Vietnam (5), and Myanmar (4). During the subsequent second phase, which was divided into segments 2.1 and 2.2, a total of 32 projects received support within East African countries. Ethiopia (5), Uganda (5), Rwanda (5), and Kenya (5) were the beneficiaries of phase 2.1 (20 projects in total), while under phase 2.2, 12 projects were implemented in Uganda (4), Rwanda (3), and Kenya (5).



Figure 1: Project countries

The CIF is part of the INA. The aim of the programme is to establish sustainable value chains with local governments of producer countries to improve livelihoods of small-scale producers and protect entire landscapes from unsustainable exploitation of natural resources. The CIF aims to enhance the profitability of smallholder coffee farmers and ensure a fairer distribution of value across the coffee supply chain. This fund operates through collaborative development partnerships involving both private sector entities and public development cooperation. These partnerships leverage the innovative capacity of private companies alongside the resources, expertise, and experience of development cooperation, fostering possibilities to drive positive development outcomes in partner nations.

The primary funding criteria encompass innovation, replicability, inclusivity, and potential impact. The overarching objective is to establish a more sustainable, profitable, and equitable coffee sector for all its stakeholders. Proposed projects span a wide spectrum, from digitalization and environmental initiatives to gender-related measures, diversification strategies, and inventive processing

methods. These initiatives span various stages of coffee production, processing, and marketing, generating greater local value.

The CIF is implemented by local GIZ country teams and coordinated from GIZ Germany. In the initial stage of promoting the fund, the country teams used different channels to promote the fund locally, including organising an outreach event in collaboration with partners from the local network. A selection committee decided about the projects to be included in the CIF by undergoing a selection process containing of pre-selection, project concept development and final selection.

During the inception phase, the evaluation team developed a simplified results model (theory of change) with the CIF project team in order to structure the intended effects at outcome and impact level. The results model was initially created based on documents and guided by the evaluation questions in the terms of references. It was then refined and validated with the CIF project team in a joint inception workshop to accurately represent the project logic and impact pathways. The results model will be used to evaluate the project's achievements, as depicted in the figure below.

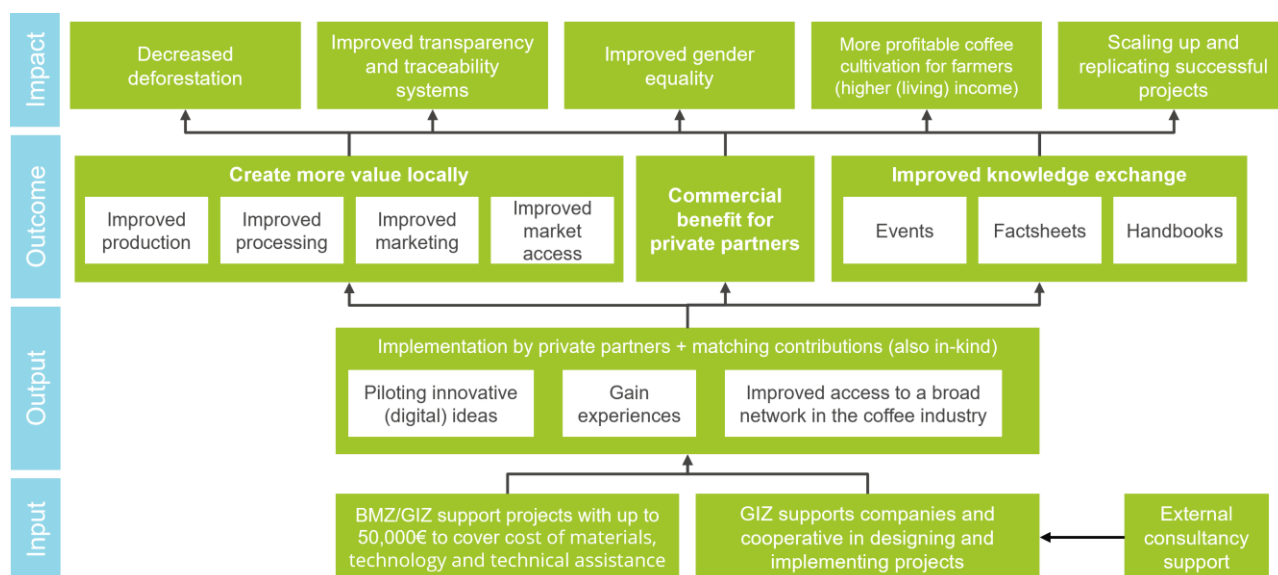


Figure 2: Simplified results model of the CIF

3 Evaluation Objectives

As defined in the terms of reference (ToRs) and the Inception Report (IR), the evaluation had the following objectives:

Recording and demonstrating impacts (outputs, outcomes, impacts) that provide the most robust statements possible about the **longer-term effects and sustainability** of the CIF.

- To **understand** and communicate the long-term **impact** of the project on the profitability of participating companies.
- To **identify measures** to improve cooperation between GIZ and private companies in future project phases.
- To **identify projects** with upscaling potential and learn from the least successful for the upcoming phase.

4 Methodology

Based on the evaluation objectives and the ToR, the evaluation has been conducted in four steps as depicted in the figure below:

Methodological Approach to Final Evaluation of GIZ Project

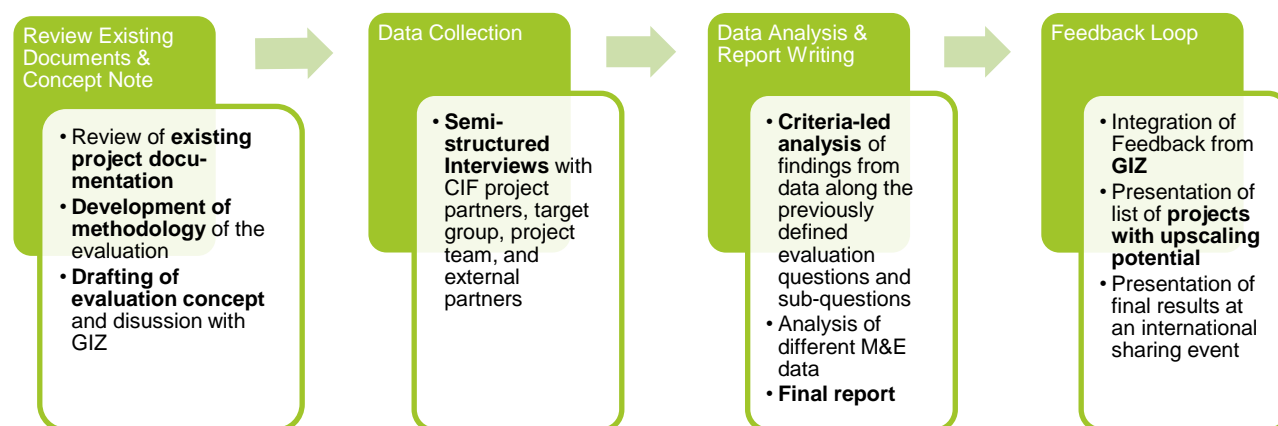


Figure 3: Methodological approach

The evaluation has been implemented with a mixed-methods approach to allow for triangulation of data. All collected data have been analysed based on the evaluation matrix included in the inception concept provided at inception stage (Annex 1).

The following data collection and analytical methods have been used for this assignment:

(A) Desk study and documents analysis

A variety of documents have been systematically analysed and information was triangulated with findings from primary data collection. The analysed documents include project-related documentation (project specific final reports, concept notes, factsheets) as well as monitoring data. A list of the most relevant analysed documents can be found in the annex.

(B) Interviews

In total 41 interviews were conducted in Ethiopia, Indonesia, Kenya, Rwanda and Uganda. These comprised representatives of 35 funded projects, key partners as well as employees of the GIZ involved in the implementation. Interviewees were selected based on their knowledge of the CIF and the respective projects and potential ability to contribute to the different evaluation questions (as laid out in the evaluation matrix). Selection and contacting of the interviewees were facilitated by the project team to minimise the risk of political repercussions. In addition, two focus group discussions with farmers were conducted to validate certain aspects of the interviews. Interviews were conducted in a semi-structured format to cover all critical aspects while at the same time allowing interviewees to answer openly and include further information not covered.

5 Assessment according to OECD-DAC Evaluation Criteria

5.1 Relevance

As part of the relevance criterion, the evaluation examined the alignment with needs and capacities of beneficiaries and stakeholders and the appropriateness of the project design.

Relevance – Dimension 1: Alignment with needs and capacities of the beneficiaries and stakeholders

The overarching objective of the CIF was to increase the profitability of small-holder coffee farmers and foster fairer, more equitable value distribution in the supply chain. In pursuit of this, the CIF clearly addressed prevalent **needs of the farming sector** in the respective countries. The coffee sectors in Ethiopia, Indonesia, Kenya, Rwanda and Uganda face a set of shared challenges, including limited market access, infrastructure constraints, and the challenge for technology adoption, all of which pose typical hurdles for smallholder coffee farmers. Thus, each stakeholder faces own challenges and has different needs in line with the innovative solutions that they have pitched.

The projects primarily targeted (social) entrepreneurs, and SMEs, offering both technical and financial resources to enhance value addition in local and export markets. A substantial number of projects focused on establishing connections with and for farmers, specifically addressing their need for improved market access and increased profits. Therefore, the CIF also targeted smallholder farmers as final beneficiaries. The majority of the evaluated projects focused on either innovation in cultivation, processing and market access or digitalization. Furthermore, the topic of ecological sustainability, biodiversity and Climate Change Adaptation (CCA) followed by women empowerment were main objectives of the projects. Nevertheless, it needs to be mentioned that especially women empowerment and sustainability were also important topics for the projects in the categories of innovation and digitalization.

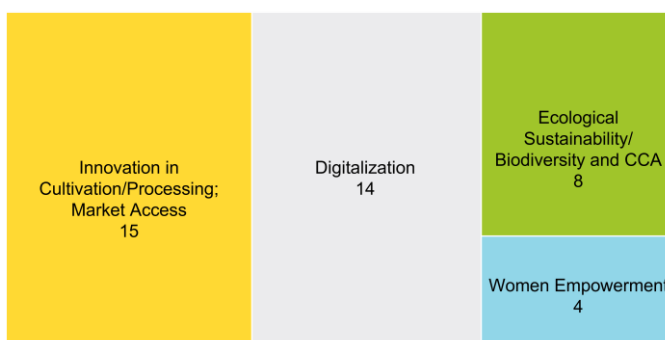


Figure 4: Project categories

Based on the needs of the target group (entrepreneurs) and the final beneficiaries (smallholder farmers), it can overall be seen that the CIF addressed common **needs and capacities of the different entrepreneurs**. The cooperation with GIZ proved instrumental in addressing the needs of the participating companies. In many cases, the CIF turned out to be essential for the foundational stages and incubation of projects. The funding therefore served as a **catalyst for innovation**, with companies materializing prototypes, introducing impactful solutions, and improving overall productivity in the coffee farming sector. As the different interviews confirmed, the CIF has proven to be beneficial for companies to **pilot new products**. Several project partners confirmed that the CIF provided them with the opportunity to introduce new products and **gain experience**, which would not be possible without the funding. Additionally, the project funds enabled them to **gain visibility** in the market and successfully deliver products to the market.

Notably, the endorsed project designs were inclusively developed through joint efforts by the partner companies and GIZ. During interviews, project partners highlighted **the positive technical support provided by GIZ** during the inception phase, facilitating a predominant alignment with their needs and capacities.

Regarding the **final beneficiaries of smallholder coffee farmers**, it is overall yet too early for a final assessment. It can be observed that the entrepreneurs have laid the foundation and established the infrastructure for value addition for both local and export markets. Furthermore, entrepreneurs were able to already meet initial needs of the farmers when it comes to production, processing techniques or the procurement and support in goods such as fertilizers. Moreover, farmers highlighted learning events and trainings especially to be helpful. Nevertheless, many entrepreneurs considered the farmers needs as very diverse and that ultimately more profitable cultivation and sales are their

primary need to increase their living income. The question of the extent to which the CIF had an influence on this aspect is dealt with below in the chapter on effectiveness.

Relevance – Dimension 2: Appropriateness of the design

In terms of the appropriateness of the project's design, the **concept of the CIF** proved to be suitable and in line with the rationale of the CIF. The CIF supported local start-ups and SMEs in the coffee sector, with contributions from GIZ provided in-kind (up to EUR 50,000 per project) — extended through service contracts or procured goods and services. Adopting this rather small-scale approach and promoting local entrepreneurs, allowed to promote ideas at the local level and facilitate needs-based support. The decentralized nature of the approach ensured that small-scale producers and farmers could be targeted directly. The large number and diversity of applications received across all five implementation countries affirmed the relevance of the chosen approach. The proposals were submitted along the entire coffee value chain, encompassing production, processing, and marketing.

Selection process

An extensive selection process was carried out to choose the selected projects, in which a suitable project idea (impact potential, potential for scaling, innovative strength and replicability) was given a particularly strong weighting (45%) in the evaluation of the project applications. In addition, the organisations were assessed in their capacity as social entrepreneurs (30%) and in their ability to implement the technical aspects (25%).

Overall, the number of applications for the CIF was very high which led to an extensive review process. For further application rounds, this process could be made more efficient by formulating the criteria more specifically so that the evaluation can be simplified. The aspect that the project idea has a high priority should be retained, as it corresponds to the nature of the fund. Nevertheless, it could be considered separately for the individual sectors (digitalisation, production, etc.). At present, the range of funded projects was very wide, so consideration could be given to funding certain promising approaches in a more targeted manner and thus investing less in a broad range.

Especially for larger companies, compared to the amount of funds the CIF offered, its application process was recognised as extensive. Also, further reporting requirements were deemed as burdensome. In order to maintain the character of an innovation fund, processes should be kept as lean as possible. Furthermore, especially for projects within the sector of production, the implementation timeline was considered challenging at times. For the production sector it would need more time in advance to plan with the funds ahead.

Monitoring of results

Each project was required to define its objectives, indicators, and milestones within its project concept. Progress towards these objectives and indicators was then assessed as an integral part of the final progress reports. In view of the very small-scaled nature of the projects, it is justifiable that the results and activities were not systematically tracked by the project team of the CIF. Nevertheless, it is worth highlighting that efforts were made by the CIF to monitor the achievements in general and the promoted projects in specific. Overall, the monitoring efforts should remain as lean as possible to not overburden project partners and the GIZ team. It is recommended for a potential future CIF to have overarching indicators that each project needs to report to and each project's needs to be aligned with. This would allow for a better results communication and a lean monitoring of the project's achievements. This could be orientated on the processes of DeveloPPP, for example, or on selected BMZ standard indicators, which use indicators that allow data to be aggregated across projects.

Project duration

The CIF had a duration of usually one-year in funding and support. Overall, many project partners recommended a longer period in the future: e.g., the one-year **duration of project funding** is relatively brief for agricultural endeavours, hindering the thorough analysis of weather data and the intricate interaction between bees and coffee plants, essential for learning what practices yield positive results. A considerable number of project partners, when interviewed, expressed a preference for an extended timeframe to further solidify the knowledge acquired within the framework of the programme. The CIF's timeframe was deemed too short to support the entire innovation process comprehensively. Several additional factors contributed to this sentiment: the **bureaucratic processes associated with procurement services emerged as a formidable challenge, demanding significant time and effort**. Delays in contracting service providers, in some cases, impacted the overall project timeline. Moreover, several interview partners called it a challenge to hire staff for only a one-year period, given that the recruitment process itself is also time-consuming and deducts from the project's duration.

Nevertheless, it must be added that with the available funds of EUR 50,000, a longer project phase would also be associated with higher costs that are not available. In view of this, it is recommended that in principle a one-year project implementation can be maintained, but on the one hand there should be more flexibility in the start and end of the project duration (e.g. to adapt it to production cycles, to procure equipment etc.). Therefore, a 3-month phasing-in and 3-month phasing-out period could be introduced in each case, which would allow a little more room for manoeuvre in implementation, particularly for procurement and project planning.

Power of innovation

As already assessed in the previous chapter, it can be confirmed that the CIF promotes the development and implementation of innovative practices, systems and tools in the coffee sector. It serves as a strong catalyst for the partners involved. In particular, the range and combination of incentives, such as commercial advantages for the private partners and development policy advantages for the coffee sector in the country, act as strong success factors. Even if the CIF process can be improved through the processes described above, it should be noted that the basic orientation of the instrument is very promising. It should maintain the success factors of speed, simplicity and at the same time strong ownership of the project partners, so that innovative and good approaches can be tested quickly and, if necessary, scaled and replicated.

5.2 Effectiveness

The effectiveness criterion comprises of assessments of the achievement of intended project objectives to date, based on the information provided by the project partners in their project reports, and the assessment of contributions to the outcome objectives of the CIF.

Effectiveness – Dimension 1: Achievement of the (intended) objectives

The CIF as a whole had no concrete indicators that could be verified across all supported projects using aggregated data. To assess the extent to which intended objectives were achieved, the evaluation team looked at the extent to which the supported projects achieved their self-defined objectives. Each project had specific individual objectives that differed from one another. Thus, a systematic analysis of the information provided in the reports was conducted. In the following dimension 2 as well as in the impact chapter, specific overarching results (e.g., Improvement of knowledge

exchange, generation of commercial benefit for private partners and local value creation) are analysed in more detail.

Figure 5 summarises the results. As no final reports have been submitted for the first phase of the fund, the assessment refers only to the second phase and did not include any projects implemented in Indonesia, Vietnam and Myanmar. Upon the conclusion of the funding period, project partners were required to assess the success of their projects using the following scale: 4 = Achieved as planned; 3 = Partially achieved; 2 = Not achieved; 1 = Aborted.

Overall, the majority, accounting for 56% of projects, successfully achieved their self-defined project objectives. Another 39% of projects partially achieved their intended objectives, while only one project (6 %) reported that it could not attain its goals. This was primarily attributed to a project delay caused by the procurement process, preventing project beneficiaries from utilizing the project results in a timely manner, especially as the coffee harvesting season coincided with the delay.

Additionally, as indicated by the mean values across the various project categories in Figure 6, there are no significant differences between the four project categories *women empowerment*, *innovation in cultivation/processing*, *market access*, *sustainability/biodiversity/CCA/CCM* and *digitalization*.

In nearly all cases where the defined targets were not met, challenges related to contract and procurement issues were mentioned as hindering factors. These delays had consequences on the overall implementation of the projects. For instance, in one specific case, these delays resulted in a postponed completion of the construction of rainwater collection tanks. Consequently, effective utilization of harvested rainwater for parchment coffee processing within the coffee harvesting season was unattainable, leading to a reliance on sun drying for drudger coffee processing.

Moreover, delays also impacted stakeholder and beneficiary engagement. In one instance, the delayed supply of materials demoralized farmers who had already expressed interest in the product, causing them to withdraw their involvement.

Other hindering factors included the fluctuation of coffee prices in the international market, keeping some farmers from investing in the coffee business. In addition, restrictions in connection with the fight against the Ebola outbreak (in Uganda) made it impossible to carry out awareness campaigns. Delays in rolling out field activities were also noted due to the deterioration of the security situation in certain implementation regions.

Overall, 53 projects were implemented in phases 1 and 2 of the CIF. The monitoring data indicates that the profitability of small-holder coffee farmers and the awareness and capacities of private sector

Achievement of intended objectives

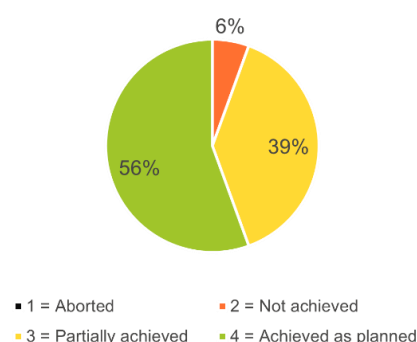


Figure 5: Were the objectives achieved?

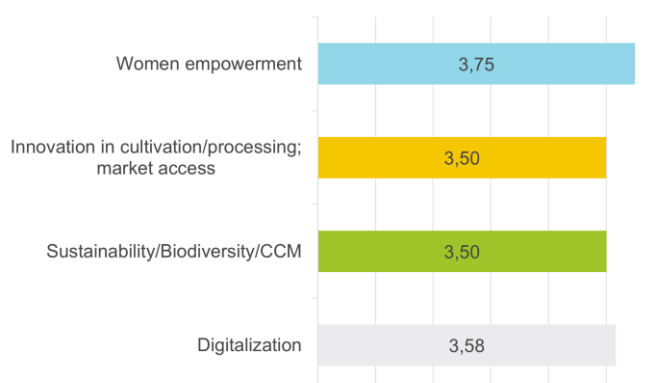


Figure 6: Achievement of intended objectives (1-4)

actors in the production country or their organizations (e.g., producer organizations) for environmentally, socially, economically, and gender-sustainable production were strengthened:

- In total, approximately 60,000 small-scale farmers were reached.
- Around 14,000 small-scale farmers were reached through capacity-building trainings, particularly in Good Agricultural Practices (GAP).
- Approximately 18,000 women and 8,000 young people benefited from women and youth empowerment initiatives.¹
- 1,800 project stakeholders improved their negotiating power through the implementation of traceability measures.
- Estimated 17,700 individuals experienced increased income and diversification.
- Around 15,000 stakeholders saw improvements in market access.

The above results must be viewed with caution. They are based on the project monitoring data but cannot be retrospectively reconstructed by the evaluation team.

Effectiveness – Dimension 2: Transmission Channels

As objective indicators do not always fully reflect project results in their entirety, this section goes beyond indicator assessment and looks at key transmission channels to assess the contribution of the CIF to the outcome results. In line with the CIF's results logic (see Figure 7), the results are summarised below structured along the key outcome objectives of the CIF. The chapter is divided into the 3 topics (i) to create more value locally through improved production, processing, marketing and market access **for coffee producers**, (ii) to generate commercial benefit **for private partners** (added value) and (iii) to improve knowledge exchange (through events, factsheets and handbooks). For an assessment of the contribution of the CIF to the three outcome objectives the interviews were used to obtain different perspectives on the various project contents. The 35 interviewed project representatives were asked to give a self-assessment of the results on a scale of 1 - 5, with 1 corresponding to the lowest assessment ("not at all") and 5 to the highest ("very much"). In the following question, they were also asked to give qualitative reasons for their assessment. A mean value of the answers was then calculated for the evaluation. When analysing the results, a particular focus was placed on examining the extent to which there were any significant differences between the different project categories. Where extreme values occurred, the qualitative explanations and the final project reports of the projects were specifically taken into account.



Figure 7: Intended results at outcome level.

¹ It is likely that there are overlaps between these groups.

Creation of local value

Creation of local value is considered the CIF's contribution to improved market access, marketing, processing and production of mainly local farmers. This includes the effect that CIF project partners have on the local value creation of coffee.

Figure 8 provides an overview of extent to which the CIF's project partners contributed to the sub-categories. The overall assessment indicates moderate results, with a composite score of 2.96 out of 5. Notably, the lowest results were observed in relation to enhanced market access, with a mean of 2.65. Conversely, the funding provided through the CIF demonstrated more significant effects on the improvement of processing, reflected by a mean of 3.30 followed by improved marketing (3.11) and improved production (2.78).

- In terms of **market access**, most progress was made through projects in the **digitalization sector**. More than half of the projects in the digitalization sector reported improved **market access of coffee producers** through various means, such as enhanced data management systems for international compliance and trade or facilitating the access of smallholder exporting coffee producers to premium international market via a digital platform. Projects falling under the category of *Innovation in Cultivation/Processing*, performed the least favourably either because it was not a specific objective of the project or due to the challenge of measuring it at this early stage. Projects that are focussing on ecological sustainability achieved notable success in enhancing market access and increasing prices through improvements in coffee quality, strategically placing initiatives in a prime position with target customers, particularly farmers, and obtaining valuable insights on resourcing.
- Improved **marketing** was not the ultimate objective in many projects. Marketing was often also considered awareness raising among farmers. In one specific case this implied, for instance, showing them the benefits of a postharvest tool to reduce post-harvest losses, ensure faster drying and ease the labour demands of the drying process, and therefore valued as an important outcome of the project's activities. Other activities of project partners such as branding the project concept using an online platform, developing marketing promotional materials, and engaging in professional field outreach to the target group were not targeted to improve the marketing of local producers but rather to improve the marketing of the CIF's partners themselves.
- **Processing** did overall improve moderately. The most substantial progress in improving processing of coffee was unsurprisingly observed in projects falling under the category of *Innovation in Cultivation/Processing* through means such as the introduction of a wet coffee processing method, including awareness raising efforts on the advantages of the method for farmers, in one case. Compared to the other categories, the results of the gender-specific projects were particularly low. This can be explained by the fact that the focus of these projects was on other activities.
- As for the improvement of **production**, advancements were made through measures like the introduction of yeast in the fermentation process. However, several project stakeholders mentioned that achieving a significant improvement in production was challenging due to the short duration of the projects. In particular, for projects where farmer training was a key component, it was noted that the training durations were too brief to sustain and enhance the results for improved production. Moreover, particularly, concerning digitalization-related projects, production enhancing measures were out of the project scope.

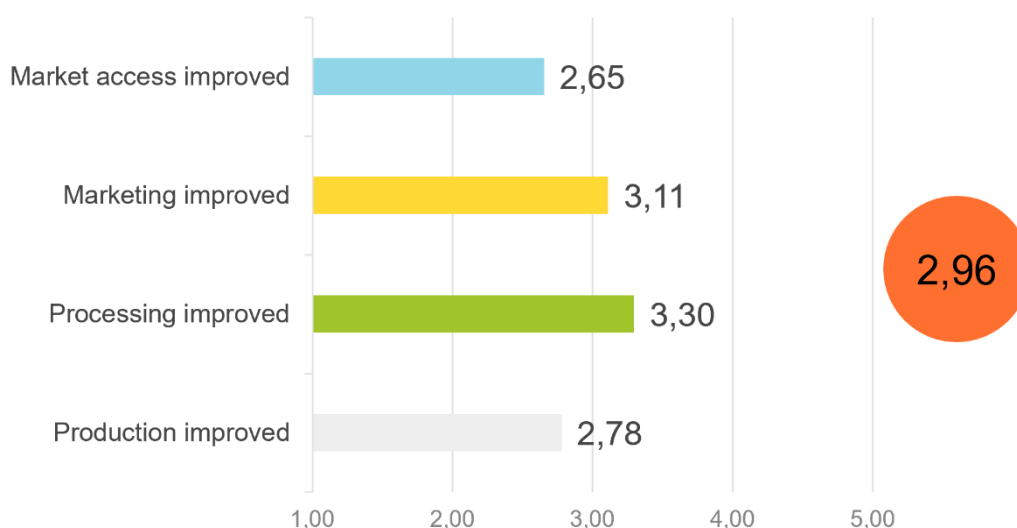


Figure 8: Was more value created locally (improved production, processing, marketing, market access)?

Commercial benefit for private partners

Overall, it was found that the involvement in the CIF led to considerable generation of added value including commercial benefits for the private partners. The majority of project partners indicated that they generated added value through the project, resulting in an overall high score of 4.21 out of 5 (see Figure 9). No major differences could be identified between the different project categories. In all the supported projects the CIF played a pivotal role as a catalyst in several dimensions.

Direct **commercial successes** have so far only been observed to a **limited extent**. In many cases, it is still too early to measure the financial benefits. In other cases, however, a number of processes have already been established that make further commercial effects likely. The following aspects can be highlighted:

- The CIF successfully enabled the entrepreneurs to test out new and innovative approaches or products. Therefore, one of the main goals of the CIF was achieved. Partners highlighted in several cases that they were able “to plant a seed”, to develop new product categories. Especially projects in the digital sector were able to therefore develop their tools and apps further and to expand their outreach (e.g., to farmers).
- Furthermore, it needs to be pointed out that the procurement of production equipment would not have been possible without the CIF. The financial support provided by the CIF enabled the acquisition of equipment that might have otherwise been financially unattainable for the recipients.
- The CIF contributed to enhancing business models, resulting in more streamlined and efficient production processes and, consequently, a reduction in product costs due to optimized resource allocation. Although this cannot yet be considered commercial benefits in the sense of increased income, it lowered the overall costs which then leads to better cost effectiveness.

- In some cases, it can already be observed that e.g., new innovative cultivation processes led to a better quality of coffee beans which in turn enabled the entrepreneurs to not just pay a higher price to coffee farmers (and therefore improve their income) but to also improve their selling price. Furthermore, the increased outreach through additional network access already enabled the project partners to increase their sales.
- Beyond these operational improvements, the CIF helped to attract new funding, elevating visibility, and accessing new markets for project partners.
- Particularly noteworthy is the CIF's role as a lifeline during the challenging times brought about by the COVID-19 pandemic, acting as a financial kick-starter for projects in need and aiding in their recovery post-COVID-19.

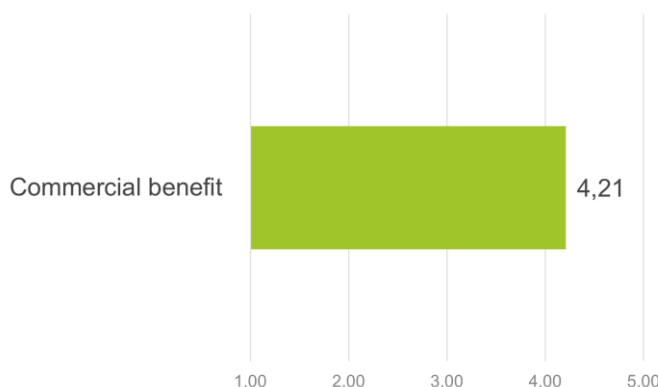


Figure 9: To what extent was added value generated (including commercial benefit) for you as the cooperating company?

Even if a number of positive results for the project partners themselves can already be identified here, the impact is still being held back by hindering factors. The main obstacles encountered were the delays in the tendering process and the awarding contracts as well as the rather short implementation period. Especially promising and already successful projects could be further supported. It would therefore be recommended to include an optional follow-up project already in future application rounds as an incentive for the participating companies.

Improvement of knowledge exchange through events, factsheets and handbooks

Overall, based on the quantitative self-assessment of projects, an enhancement of knowledge exchange for both, coffee farmers and project partners, was achieved through a variety of effective channels (3.75 on a scale from 1 to 5)². These observations were consistent across projects of all categories. Projects with a focus on women empowerment had the strongest approval rates (4.67) followed by projects focusing sustainability (4.00) and projects focussing on innovation in processing (3.77; see Figure 10). Digitalization projects achieved a slightly lower approval of 3.14 but were still rated positive. Based on further qualitative data, the interview partners highlighted in particular the relevance of events and trainings in fostering a collaborative environment among coffee farmers, researchers, and other stakeholders. Factsheets and handbooks were mentioned in fewer cases but were still recognized as valuable contributors to knowledge exchange.

Learning events and targeted training sessions proved beneficial for farmers, offering valuable insights and practical skills. The exchange of knowledge also facilitated the sharing of innovations and best practices, contributing to a collective elevation of expertise within the coffee sector.

Remarkably positive outcomes were observed in projects falling within the category of women empowerment, where successful knowledge exchange played a pivotal role in equipping beneficiaries with diverse skills. This included facilitating valuable training in content production and marketing campaigns, as well as fostering technical and reporting skills through interactions with GIZ project

² With 1 corresponding to the lowest assessment ("not at all") and 5 to the highest ("very much").

partners. Consequently, this led to **expanded networks and increased confidence** in engaging with donors.

However, it is noteworthy that the comparable **short implementation period emerged as a constraining factor** in the knowledge exchange process (e.g. to reach a higher number of beneficiaries with training), as highlighted by several project stakeholders.

Overall, the monitoring data from the final project reports collectively demonstrates significant progress in enhancing the profitability of smallholder coffee farmers and promoting a fairer, more equitable distribution of value in the supply chain. Further assessment reveals moderate levels of improvement in knowledge exchange through events, factsheets and

Knowledge Exchange

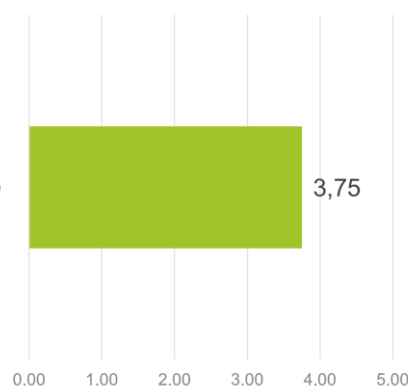


Figure 10: Did the knowledge exchange improve (through events, factsheets and handbooks)?

handbooks as well as in creating local value and a substantial level of added value in terms of commercial benefit. Nevertheless, challenges associated with contract and procurement issues, as well as the relatively brief implementation period, prevented a better outcome. It is important to consider, however, that the CIF fund was primarily designed for testing and experimenting with ideas within short durations and relatively modest budgets. As such, there was no expectation for projects to be conceptualized as inherently long-term from the outset.

5.3 Efficiency

As part of the efficiency criterion, the evaluation examined the extent to which project resources were used appropriately with regard to the translation into tangible results at output and outcome level.

To assess the efficiency of the CIF, strengths and weaknesses that were identified in terms of efficiency throughout the evaluation are summarised as followed. In terms of efficiency gains, the following stand out:

+ Valuable support services from GIZ:

The assistance provided by GIZ was predominantly viewed as exceptionally positive by the project partners. Above all, the technical expertise of GIZ, along with guidance in project implementation, was highlighted. The GIZ teams maintained regular follow-ups on reporting, ensuring that the grantees received consistent guidance and support. The extensive network of GIZ was also deemed advantageous, as it facilitated connections with potential partners capable of supplying the essential components for the development of the coffee drying machine. This assistance not only streamlined the projects but also heightened their feasibility.

While feedback on communication structures was generally positive, an area for potential optimization could be identified. As it turned out, in some case there were notable delays at the GIZ headquarters when certain decisions could not be reached within the GIZ office in the partner country. Given the seasonal nature of the coffee sector, delays can have significant repercussions.

+ Effective, well-structured selection process:

In all of the implementation countries, the call for applications yielded successful results. Key factors contributing to the large number of proposals, mentioned by project stakeholders, included the simplicity of the application process and the diversity of the themes. The multi-stage application process, encompassing a thorough screening of application documents and in-person interviews, was perceived by the majority of surveyed project participants as well-structured and comprehensible, albeit occasionally perceived as too tedious and lengthy.

Of particular note was the positive feedback regarding the structure, facilitating applicants in articulating their project's objectives and key activities. The submitted applications underwent evaluation based on a matrix of criteria. This assessment encompassed technical considerations, such as a demonstrated capacity to lead projects, criteria related to social entrepreneurship, for instance, a demonstrated commitment to sustainable and inclusive business practices, and concept-related criteria, including the level of replicability in other areas, countries, or regions. From the evaluators' perspective, these criteria are deemed comprehensible and purposeful in advancing the objectives of the fund.

In terms of efficiency losses, the following aspects were identified throughout the evaluation:

– Delayed procurement process:

The most significant obstacle encountered in the implementation were long procurement processes. A considerable portion of the project stakeholders expressed dissatisfaction with service procurement delays, such as those related to contract awards, approvals regarding the provision of essential equipment, and the execution of training sessions by external service providers. As a result, project partners often found it challenging to implement their projects according to the planned timeline, leading to efficiency losses. In some cases, they had already allocated resources that they were then unable to fully utilize. Furthermore, expectations had been raised among farmers in some instances that could not be met. In certain cases, delays also resulted in misalignment with the coffee harvesting season in the project timeline and made it difficult to realize the activities as originally planned.

The delayed procurement process also led to external factors affecting the projects, restricting budget planning. These factors include fluctuations in exchange rates, inflation, and increases in commodity prices. As a result, the budget was excessively constrained, leading in some cases to cuts in activities. Correct procurement processes within GIZ are of crucial importance to ensure the correct utilisation of funds. In the case of the project partners, however, the picture that emerges is that they had different expectations of the processes and may not have been sufficiently informed about the duration and complexity of the processes. This aspect, in combination with a short implementation period, created a correspondingly high level of pressure and thus dissatisfaction.

– Short implementation period:

The one-year project duration of the projects was identified as a big challenge for most of the project partners. This was particularly the case given the contracting, implementation, monitoring, and impact measurement required within that timeframe. Given that agriculture projects are subject to seasonal variations and coffee harvesting only occurs once per year, a large number of the stakeholders pointed out that this makes it challenging to complete them within a single year.

In conclusion, the CIF demonstrated notable efficiency strengths through the invaluable support provided by GIZ teams and the straightforward call for proposals and selection process. Nonetheless,

it encountered efficiency challenges, particularly concerning delays in procurement and the constraints imposed by a relatively short implementation period.

5.4 Impact

In the realm of the assessment of impact, the evaluation scrutinized the potential contributions of the project to higher-level developmental changes and cross cutting topics.

Selected potentials shall be explored in the following (see Figure 11), with a primary focus on the contribution to **a higher profitability of coffee cultivation for farmers, aiming for higher (living) incomes for farmers**. The further dimensions, i.e. decreased deforestation, improved transparency and traceability systems and improved gender equality, although not direct objectives of the CIF, are analyzed given their general relevance to the sector development. The aspect of scalability is further analyzed under the sustainability section (see chapter 5.5)



Figure 11: Intended results at impact level

Decreased deforestation

The overall assessment of the projects' contribution to reduced deforestation presents a mixed picture. Overall, projects showed moderate effects, with a mean of 2.68 out of 5.

In several cases, a reduction in deforestation was not a specific focus of the projects. Where effects were achieved, they are more appropriately assessed as side effects. The most significant impact was observed in projects related to *ecological sustainability/biodiversity/climate change mitigation*. This included e.g. the launch of a tool to deliver agroforestry and crop diversification advisory models to farms in Uganda, which can execute tailored made farm designs and select the most adequate crop diversification for farmers. One project in the area of digitalization implied the development of a remote sensing application to measure, model and mitigate carbon emissions from land-use change in smallholder coffee farms in Ethiopia. The initial analysis of the remote sensing data revealed severe deforestation on these coffee farms. The project raised awareness among farmers, exporters, and buyers regarding the issues associated with deforestation and emphasized the importance of preserving the remaining forests.

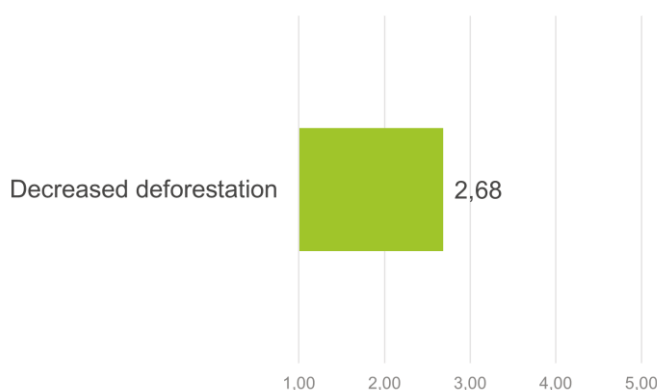


Figure 12: To what extent were the projects able to contribute to decreased deforestation?

Improved transparency and traceability of the coffee value chain

Likewise, figure 13 shows moderate effects in terms of an improvement of transparency and traceability of the coffee value chain, with a mean of 2.86. The highest score was achieved by projects in the area of *digitalization*.³

As the stakeholder interviews revealed, there is significant potential for digital tools to contribute to elevated transparency and traceability standards, especially through the integration of GPS mapping. Positive outcomes have already been observed, such as through digitized management systems that pave the way for the traceability of production methods and the promotion of deforestation-free practices. One example includes the creation of a verifiable digital traceability tool, which has been regarded as a notable success in providing end-to-end traceability for the Indonesian coffee sector. The online system allows buyers to access traceability data thereby allowing them to obtain better information about the Indonesian coffee market and communicate with their consumers. However, the full potential for improved transparency and traceability of the coffee value chain has not yet been fully realized due to pending implementation. This is exemplified by another project in the sector of digitalization. While the successful implementation of an integrated, efficient, and remote online coffee trading platform has been achieved, the further goal of enhancing the system to incorporate a more elaborate traceability functionality, benefiting coffee buyers and ultimately consumers, will only be met in the future.

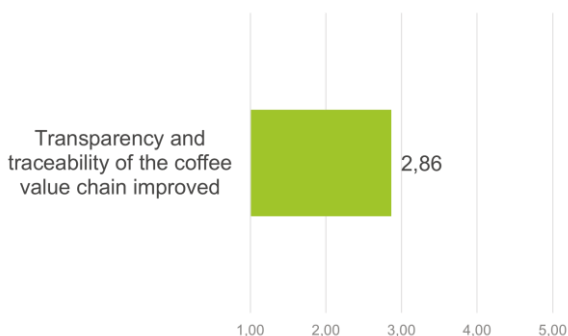


Figure 13: To what extent were the projects able to improve the transparency and traceability of the coffee value chain?

Improved gender equality

Observed effects on the impact level in terms of gender equality are shown in Figure 14. Overall, only moderate effects occurred so far, with a mean of 2.92 out of 5. However, all of the projects with an explicit gender focus (project category *women empowerment*), indicated very positive effects, while projects in the realm of *digitalization* did not identify any major effects.

The projects classified under the *women empowerment* category all successfully contributed to promoting gender equality. This included:

- The development of capacity among 266 female coffee farmers to employ good coffee farming practices, increasing coffee cherry yield per tree, and diversifying their income sources through the integration of modern bee apiaries.
- Strengthening the financial independence and decision-making power of women in the coffee sector through training farmers from women's associations in content production activities, the development of a strategy and brand guideline, and running a marketing campaign for a women-owned coffee brand. As a result, the brand's sales increased by 21% for the period January-June 2022 compared to July-December 2021.

³ As only a small proportion of projects in the area of *women empowerment* provided information on this aspect, they were not included in the overview.

- Contributing to additional employment opportunities in coffee-based tourism for female casual working through the provision of training on good agricultural practices (GAP), handcrafting, and saving and lending schemes for around 200 workers.

At the same time, in some of the projects, no gender-related impacts were achieved. This can be attributed to the fact that gender was not an explicit focus in many projects, especially those in the field of digitalization.

However, despite the granularity and heterogeneity of the projects, many cases exhibit promising approaches that can unfold long-term positive effects. It is worth noting positively that the inclusion of women and marginalized groups was explicitly considered during the assessment of the commitment to sustainable and inclusive business practices in the selection process for the second project phase. Particularly when women are explicitly targeted in the course of project activities, promising preliminary results emerge. Overall, approximately one-third of all CIF projects address gender-related issues. During the funding period from May 2022 to September 2022, a total of 9,235 women were directly reached by 19 projects. This corresponds to approximately 35% of all directly reached individuals. Additionally, during the same period, 14 all-women and 17 women-led cooperatives benefited from the measures.

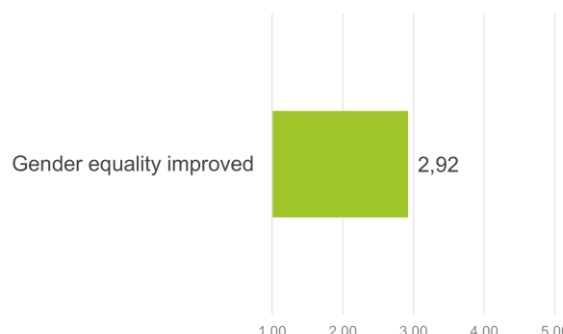


Figure 14: To what extent did you improve Gender equality?

More profitable coffee cultivation for farmers Figure 15 gives an overview of the projects' contribution to increased profitability of coffee cultivation for farmers. The overall result is a moderate impact, with an average score of 2.96 out of 5. No significant differences between the project groups were evident, with projects belonging to the category *women empowerment* performed the best, achieving an average score of 3.33 followed by *innovation in cultivation* (3.00), *digitalization* (2.83) and *sustainability* (2.80).

Overall, the analysed data showed that it is still **too early to see effects** in profitability of coffee farmers. The majority of responses indicate that observing such effects often requires future harvest season and sometimes even several years, and the project term was deemed too short to conclusively assess increased profitability of coffee farmers. Instead, the **focus has been on knowledge and skills development**. In certain cases, where projects

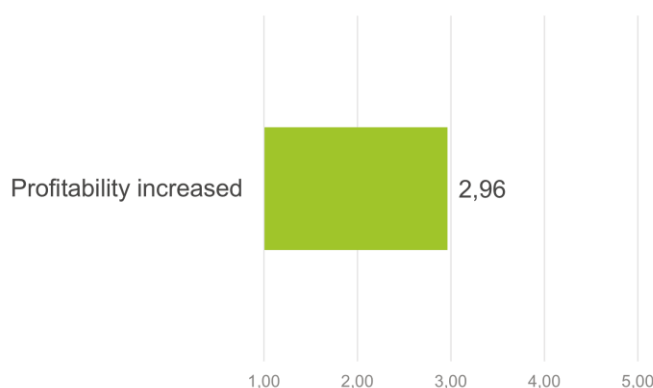


Figure 15: To what extent has the profitability of smallholder coffee farmers increased through the project?

did not have a direct connection to farmers (such as traceability systems and digital systems), the anticipated effects are expected to be more long-term in nature.

However, some short-term impacts have been noted, particularly in terms of higher quality coffee and increased buying prices. This is attributed to the introduction of new machinery e.g., for drying and processing as well as the exploration of new marketplaces that enable projects to sell their produce at more favourable prices. Additionally, in several projects, farmers have experienced savings due to reduced costs, such as those related to self-made fertilizers and the use of solar panels. A notable positive example is the development of a digital marketplace that partners with local export

processors and works directly with smallholder producers in Ethiopia. This platform reduces export hurdles for smallholder coffee producers, improving their access to foreign markets and obtaining better net profit, all while preserving smallholder ownership and agency over their goods. According to the company representative, farmers selling directly receive a minimum net increase in profit of 34% compared to selling at the farmgate. However, as this is the impact level, the CIF did not yet expect any large-scale effects, but instead focussed on piloting new approaches.

One aspect that needs to be emphasised is external effects. Even if many innovations lead to greater resilience, market entry and sustainability of coffee farmers, profitability in particular is strongly linked to the market price of coffee, weather conditions or other external factors. Therefore, an increased living income would also need to be connected to diversification. Only a very limited number of supported projects focused on the diversification of income for coffee farmers e.g., through bee keeping, planting of sunflower, fruit trees or improved coffee tourism.

In essence, the CIF holds substantial potential for broader impact at various levels, although this is currently evident only in parts through best-practice examples. The primary focus on enhancing profitability in coffee cultivation demonstrated a moderate impact, with varied performance across project categories. Despite early challenges in observing direct effects on farmers' income, short-term gains such as improved coffee quality and increased buying prices were noted, emphasizing the importance of new approaches and innovations. Gender equality initiatives, particularly in the women empowerment category, showcased positive effects, emphasizing the successful integration of women into the coffee sector. While not all projects explicitly addressed gender concerns, the commitment to inclusivity during project selection yielded promising results. The data shows moderate effects on reducing deforestation, primarily driven by sustainability and biodiversity initiatives. Notably, projects focusing on climate change mitigation demonstrated significant success through soil cover improvements. Similarly, improvements in transparency and traceability of the coffee value chain were observed, with digitalization projects leading the way. It is important to note, however, that due to the granularity of the projects, long-term effects across all impact dimensions are unlikely and often exceed the scope of the projects. Additionally, robust statements can only be made to a limited extent at the current time, shortly after the project's completion.

5.5 Sustainability

Under the sustainability criterion, the evaluation assessed the capacities of beneficiaries and stakeholders to establish sustainability measures and maintain key project results over time, as well as the overall durability prospects of the results.

To consolidate key findings and observations, the following chapter systemises key factors that support sustainability and factors which pose a risk to lasting sustainability of key results of the CIF. On the side of **factors that support the sustainability** of the results of the promoted projects, the following stand out:

+ High scalability and replicability potentials:

The scalability and replication potential played a pivotal role in the selection process for funded projects. It is therefore noteworthy to highlight that the supported projects showcase significant potential

for scalability and replicability⁴. As indicated in the interviews, some projects have already achieved scalability. The overall data, depicted in Figure 16, illustrates that 44.4% of the partners have successfully scaled their projects, with 55.6% not undertaken scaling efforts. Noteworthy instances of successful scaling include:

- Expanding farmer training to two new sites with higher numbers of beneficiaries to help farmers introduce improved agroecological production conditions and practices for better-quality outcomes, implemented by *Baca Development Partners* in Kenya.
- Increasing coffee production by introducing yeast in the fermentation process and collaborating with an expanding network of stakeholders, partners within the coffee industry, and various coffee farmers' groups, implemented by *So So Good Coffee* in Indonesia.
- Transferring an innovative, low-cost coffee processing system to deliver premium and specialty-grade coffee beans to two new sites, implemented by *Tanamera* in Indonesia.

Did you already scale your project up?

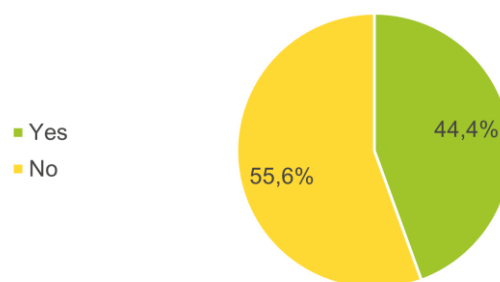


Figure 16: Share of scaled projects

In addition to such success stories, the project partners expressed strong confidence in replication and scaling potentials of their respective projects. The majority of implemented projects evaluated themselves as highly replicable and scalable, resulting in an overall score of 4.42 and 4.53 out of 5. This is in particular the case for projects in the areas of *women empowerment* and *digitalization*. In contrast, projects in the realm of *sustainability/ biodiversity/ CCA/ CCM* have only modest potential for scaling, while having high replicability potentials (see Figure 17). Drawing on anecdotal information from the interviews, the following can be inferred: Digital projects were planned in such way that new functions can be integrated within the developed models and applications. However, effort is needed as scaling and replication would often involve identifying a new region or local producing segment.

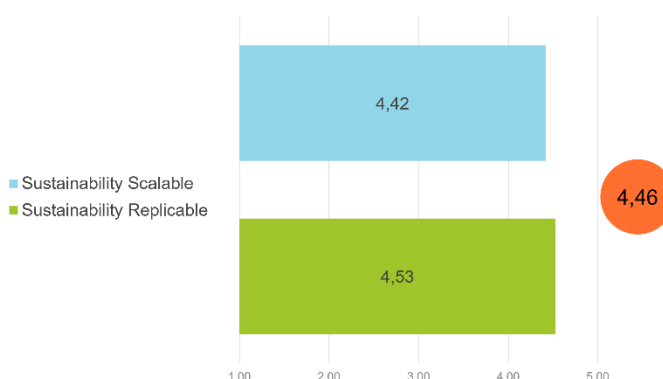


Figure 17: To what extent do you think the project is replicable and scalable?

- Successfully implemented activities such as farmer mobilisation, awareness and outreach make it easier to replicate the projects and to reach out to additional farmers in the futures as the groundwork has been covered. This was especially stated with regard to *sustainability/biodiversity/CCA/CCM*-related projects.

⁴ Scalability and replicability are understood as closely related but slightly different concepts. Replicability is defined as an approach or project that can be copied (with possible variations) to linearly grow results in relation to effort and cost. Scalability is defined as the ability of an approach or project to adjust its scale to respond to augmented volumes of demand and create better results.

- Given that coffee growing areas differ in terms of altitude, farming practices, processing of coffee and other factors, scaling would in many cases require significant input. Additional financial input and access to finance are often needed to scale further.

+ Enhanced organisational capacities:

Overall, the project partners have reported enhanced sustainability in terms of organisational capacity as a direct outcome of CIF support. This is illustrated by the overall score of 4.25 out of 5 (see Figure 18).

The acquisition of technology and equipment, such as solar panel or liquid fertilizer plants, through the CIF support has resulted in more sustainable processing methods, ultimately leading to higher coffee quality. The observed diversification of revenue sources in some instances will enhance long-term financial sustainability. Additionally, some projects highlighted an enhancement of their organizational processes. For instance, one project was previously operating within an informal organizational structure. As a direct outcome of the project, they established formal policies and procedures. This included essential measures such as delineating governance from management and recruiting dedicated management personnel.

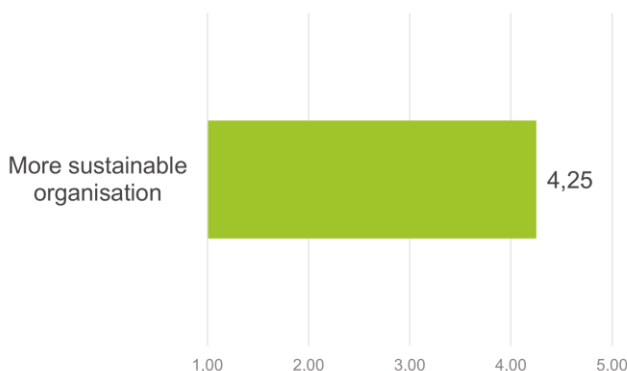


Figure 18: To what extent did your organisation become more sustainable through increased organisational capacities?

+ Increased human capacities:

The majority of project partners experienced an increase in human capacities through the CIF, illustrated by an overall mean of 3.96 out of 5. The training provided to both farmers and project staff has bolstered the sustainability of human capacities within the projects. This was exemplified by a specific project aimed at developing and promoting a post-harvest tool to reduce post-harvest losses, ensure faster drying and ease the labour demands of the drying process. As the interview revealed the collaboration had a positive effect on the **confidence and commitment of coffee farmers** to professionalise coffee cultivation. Throughout the project more than 650 smallholder coffee farmers have been skilled in the use and maintenance of the tool through trainings. Additionally, the guidance provided by the project empowered staff members to develop skills in mobilizing farmers, effectively showcasing the tool, and instilling confidence in handling and addressing individuals at both local and international levels.

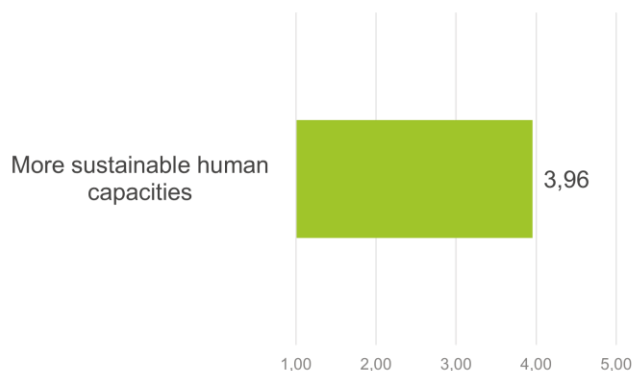


Figure 19: To what extent did your organisation become more sustainable through increased human capacities?

+ Alignment with the EU regulation on deforestation-free products:

The projects implemented under the CIF in the area of digitalization encompass essential aspects of traceability and transparency, laying initial foundations for compliance with the EUDR. Some of

the digital projects, in particular, contribute to the establishment of transparent coffee supply chains and sustainability standards through traceability functions. For example, by developing tailored ICT solutions for smallholder farmers and cooperatives that use a Big Data approach to trace the origin of coffee. In a couple of projects, deforestation-free production was explicitly stated as a goal such as in the case of the project implemented by Carble B.V. in Ethiopia, which utilized remote sensing to monitor deforestation activities, promoting principles of agroforestry, including crop diversification, natural water management, soil quality protection, and the use of natural fertilizers, all while ensuring transparent supply chains. This establishes crucial conditions for long-term viability in international markets and the potential for synergies with other initiatives related to deforestation-free production or practices. Likewise, a project implemented by Ndugu Coffee Farmers Limited in Uganda makes use of a Coffee Farm Development Tool to deliver agroforestry and crop diversification advisory models to farms to tackle deforestation.

+ Interoperability of digital tools:

With few exceptions, the supported digital projects exhibit good potentials for interoperability. Depending on the design of the tool, various models are conceivable, such as integration into other programs, utilization as an extension for existing tools, or the expansion of functionalities. This can be illustrated by a digital tool, developed by *Debo Engineering in Ethiopia*, which uses AI to identify diseases and infestations in coffee plants and thus counteract their spread. The solution has been designed in such a way to integrate with existing traceability systems, fostering collaboration and data exchange. This interoperability ensures that businesses can harness the full potential of traceability across their supply chains, promoting transparency, efficiency, and accountability while avoiding the siloed approach that can hinder progress in traceability initiatives.

On the side of **factors that pose potential bottlenecks for sustainability** of the results of the promoted projects, the following two aspects stand out:

– Limited establishment of connection with German development cooperation portfolio and other potential funding partners:

A notable impediment to sustainability, as identified, was the insufficient incorporation of projects into the German development cooperation portfolio or the development of partnerships with other potential financing partners such as other donors. In GIZ partner countries, projects are often implemented jointly with political partners. Therefore, it was stressed by project stakeholders that it would have been beneficial to create synergies with political entities from the beginning in order to not only secure the sustainability of CIF projects, but also to secure subsequent political support.

This could have been achieved by engaging political partners in project selection and implementation, or formalizing Memoranda of Understanding (MoU) that articulate how projects align with government policies. This need for stronger linkages with the government, was particularly evident in Uganda, where a lack of connection with the Uganda Coffee Development Authority (UCDA) was reported. An implementation with the input and oversight of the UCDA would, however, have been needed to ensure the contributions of the CIF resonate within the coffee industry. A stronger focus on establishing connections to bilateral projects and local political entities would have, therefore, facilitated the continued support of promising projects beyond the founding or pilot phase.

In conclusion, factors supporting the sustainability of the results of the CIF include the significant scalability and replication potential of a substantial proportion of funded projects as well as their enhanced organisational and human capacities. Moreover, projects of the category digitalization overall demonstrate key prerequisites for a future alignment with the EU regulation on deforestation-

free products and room for interoperability. However, risks to sustainability are also observed and encompass the limited establishment of connection with bilateral portfolio and unrealised synergies with political entities.

6 Conclusion and lessons learned

In conclusion, the evaluation underscored the **relevance** of the CIF in addressing the needs of small-holder coffee farmers across various countries. The CIF played a pivotal role in project incubation, acting as a catalyst for innovation and bolstering market visibility for entrepreneurs. While recognizing potential enhancements in application processes and monitoring, the CIF's project design was considered promising, emphasizing the need to maintain its core success factors for quick testing, scaling, and replication of innovative approaches.

In terms of **effectiveness**, the funded projects overall yielded positive results in knowledge exchange, commercial benefit generation, and local value creation. Knowledge exchange received high approval, and the CIF played a key role in generating added value through innovative approaches, equipment procurement, and business model enhancements. The creation of local value showed moderate progress, with improvements in processing, marketing, and production, while the biggest challenges were noted in market access enhancements. Delays in contract and procurement issues were common hindrances to project success, affecting implementation and stakeholder engagement.

With respect to **efficiency**, the CIF demonstrated strengths through the invaluable support provided by the GIZ teams and an overall straightforward call for proposals and selection process. However, efficiency challenges arose, notably in the processes associated with procurement services emerged as a formidable challenge, demanding significant time and effort. Correct procurement processes within GIZ are of crucial importance to ensure the correct utilisation of funds. Project partners had different expectations of the processes and may not have been sufficiently informed about the duration and complexity of the processes. This aspect, in combination with a short implementation period, created a correspondingly high level of pressure and thus dissatisfaction. Furthermore, delays in contracting service providers, in some cases, impacted the overall project timeline. Overall, the relatively short implementation period was too ambitious in view of the procurement, implementation and monitoring required within this timeframe.

Furthermore, the evaluation highlighted the CIF's potential for broader **impact** across various levels, albeit currently discernible only through exemplary instances. The primary focus on enhancing profitability in coffee cultivation demonstrated a moderate impact. Despite early challenges in observing direct effects on farmers' income, short-term gains such as improved coffee quality and increased buying prices were noted. Gender equality initiatives, particularly within the women empowerment category, showcased positive effects, emphasizing the successful integration of women into the coffee sector. Although not all projects explicitly tackled gender concerns, the commitment to inclusivity during project selection yielded promising outcomes. The data shows moderate effects on reducing deforestation, primarily driven by projects in the realm of ecological sustainability/biodiversity/CCA/CCM. Similarly, improvements in transparency and traceability of the coffee value chain were observed, with digitalization projects leading the way.

With respect to the **sustainability** of the funded projects, factors supporting the sustainability of the results of the CIF include the significant scalability and replication potential of a substantial proportion of funded projects as well as their enhanced organisational and human capacities. Moreover, projects of the category digitalization overall demonstrate key prerequisites for a future alignment with the EU regulation on deforestation-free products and room for interoperability. However, risks to sustainability are also apparent. This includes the limited establishment of connection with bilateral portfolio, which would have facilitated the continued support of promising projects beyond the

founding or pilot phase. Moreover, in some instances, missed connections to local political entities were observed, posing a potential challenge for the long-term effectiveness of projects.

7 Recommendations for CIF 3.0

Recommendations for CIF 3.0
<p>Application process</p> <ul style="list-style-type: none"> • The multi-stage application process, encompassing a thorough screening of application documents and in-person interviews, was perceived by the majority of surveyed project participants as well-structured and comprehensible, albeit occasionally perceived as too tedious and lengthy. • The efficiency of the assessment of application could be increased by more specific selection criteria that would make it easier to assess qualitative data. • Cross cutting topics such as Gender and Deforestation need to be specifically targeted in order to achieve results. It is therefore recommended to assess in the application process if there is a specific strategy for these cross-cutting topics
<p>Project selection</p> <ul style="list-style-type: none"> • At present, the range of funded projects was very wide, so consideration could be given to funding certain promising approaches in a more targeted manner and thus investing less in a broad range of topics. • The amount of contributions (EUR 50,000) seems to have been appropriate. It was rather the case that the time was not sufficient for the implementation and the procurement, leading to delays in many cases.
<p>Monitoring</p> <ul style="list-style-type: none"> • Overall, the monitoring efforts should remain as lean as possible to not overburden project partners and the GIZ team. The impact of projects (e.g., their influence on the profitability of coffee farming) does not need be a key performance indicator yet but rather the sustainable capacity development. The CIF could learn from the monitoring approach of the develoPPP programme as they have a similar approach but in a larger scale. • It is recommended for a potential future CIF to have overarching indicators that each project needs to report to and each projects needs to be aligned with. This would allow for a better results communication and a lean monitoring of the project's achievements. • It could have been beneficial to also establish baseline values as part of the development of the concept notes.
<p>Project duration</p> <ul style="list-style-type: none"> • In principle a one-year project implementation can be maintained, but there should be more flexibility in the start and end of the project duration (e.g. to adapt it to production cycles, to procure equipment etc.). • Therefore, a 3-month phasing-in and 3-month phasing-out period could be introduced in each case, which would allow a little more room for manoeuvre in implementation, particularly for procurement and project planning.

- It is recommended to include some kind of a follow-up opportunity for successful projects. They could either be included into the next round of funding or alternatively connected with further investors, the GIZ bilateral projects or public institutions in their specific countries.

Needs based approach

- The CIF should continue with the needs-based approach, which is essential for the foundational stages and incubation of projects.
- The CIF should continue to include project partners in the procurement of goods.
- The CIF should continue to focus on the knowledge exchange as well as on the creation of recipe books and fact sheets. Furthermore, projects want to learn from similar other project ideas. Therefore, more (international/regional) sharing events could be beneficial.

Sustainability

- Instead of focussing on more projects to be funded, it should be considered to support the scaling of successful projects or to replicate approaches from some countries.
- There is a risk for a continued support of promising projects beyond the founding or pilot phase. For start-ups and entrepreneurs, a seed funding of one year is not enough. Therefore, there is a high risk that results will not be maintained. Successful projects should have further opportunities.

8 Selected projects with upscaling potential

Based on the evaluation results, projects demonstrating scalability were identified through a careful selection process guided by three key criteria:

- Self-assessment by the projects: Did the project representative assess the project as scalable?
- Overall performance of the project: Was the project at least moderately successful?
- Scaling-oriented project design: Was the project designed in a manner that suggests it can attain increased volumes of demand (e.g., through interoperability in the case of digital projects) and generate impact at a rate surpassing the rate at which effort and costs increase?

Furthermore, particular attention was given to selecting at least one project per country and per project category. The chosen projects encompass both those yet to undergo scaling and those already scaled but displaying additional potential for further scaling. The table presents an overview of the selected projects, including a brief description of their content and outlining their identified scaling potential.

Country	Project Category	Project title (Partner)	Brief Description	Scaling Potential
Ethiopia	Digitalization	Coffee Diseases Early Detection using Artificial Intelligence (Debo Engineering)	AI based early coffee disease detection, monitoring and prevention app that run on mobile, web and desktop apps	Integration of additional types of coffee diseases data within the developed model and applications
Ethiopia	Ecological Sustainability/Biodiversity/CCA/CCM	Production of Organic Cascara to increase the living income of farmers (Moyee Ethiopia)	Pilot programme to map out the full supply chain for the export and local consumption of cascara production	Boost commercial cascara tea consumption in more markets though exporting to other markets/countries
Indonesia	Innovation in cultivation/processing; market access	Improving Purpose-Driven Fermentation Process to Create New Taste Profile and to Boost Coffee Score to Access Global Market (So So Good Coffee Company)	Utilisation of yeast in coffee fermentation to enhance the quality and achieve higher coffee scores	Further development of the processing of coffee enables coffee farmers to produce higher-quality coffee, thus increasing their income from the same raw materials
Kenya	Innovation in cultivation/processing; market access	Expanding Eco-Friendly Domestic Consumption to increase farmer incomes (Utake Coffee Limited)	Expansion of the domestic specialty coffee consumption market through the introduction of a convenient at-home and travel brewing system	Upscaling of training in roasting and cupping of coffee to a bigger target group
Kenya	Digitalization	Coffee value chain automation, capacity, and efficiency	Digitalization of the commercial operation of the Othaya Farmers' Cooperative Society through a centralized information	Upscaling to more cooperatives; however, this comes with financial implications, considering that

		enhancement (Othaya Farmers' Cooperative)	management system that ranges from collection of production data to sales and accounting.	cooperatives vary in their structures
Kenya	Women empowerment	Coffee diversification: integrating modern bee farming into coffee production to cushion small holder coffee farmers from delayed coffee payments and fluctuating coffee prices (Mt. Kenya West Women in Coffee)	Integrate modern bee apiaries with smallholder coffee farming; capacity development in GAP; initiation of new tree planting	Training of more apiary management teams and farmers and enhance the capacity for marketing to increase the income from coffee and honey sales of more farmers
Rwanda	Innovation in cultivation/processing; market access	Coffee and Patchouli intercropping and rejuvenation for increased coffee production and quality (IMPEXCOR)	Provision of technical assistance with a focus on encouraging intercropping of patchouli in coffee farms	Upscaling to other regions, considering the great need of regeneration of coffee trees; investment in adequate materials, seedling and sensitization necessary
Uganda	Innovation in cultivation/processing; market access	Biogas tanks: A source of organic fertilizer to boost coffee production for women in specialty coffee (Mt. Elgon Women in Specialty Coffee)	Support to the women cooperative to boost coffee production and livelihood through organic coffee production through soil and water conservation practices	Selling of overproduced biogas into the market (infrastructure needed)
Uganda	Digitalization	Big Data for Sustainable Production and Market Access (eProd)	Big Data Platform collecting data ranging from farm size, yields, productivity, processing, and cup quality information, which enables cooperative societies and farmers access to critical services such as credit, insurance, inputs, and market price information	Upscaling to more countries and inclusion of coffee cooperatives and training programmes

Annex 1: Evaluation Matrix

Relevance

Relevance: assessment dimensions	Evaluation question	Basis for assessment
Alignment with the needs and capacities of the beneficiaries and stakeholders	<i>To what extent are the CIF's project objectives aligned with the development needs and capacities of the beneficiaries and stakeholders involved (individuals, groups and organisations)?</i>	Interviews with project partners
Appropriateness of the design*	<i>To what extent is the CIF's design appropriate and realistic (in terms of technical, organisational and financial aspects)?</i> <i>To what extent was the design of the project suitable to changes in the environment (COVID, problems due to weather)?</i>	Interviews with project partners

Effectiveness

Effectiveness: assessment dimensions	Evaluation question	Basis for assessment
Achievement of the (intended) objectives	<i>To what extent were the (intended) project objectives achieved?</i> - <i>To verify internal M&E data</i>	Internal M&E Data from project reports - If available based on indicators, otherwise based on project objectives
Contribution to achievement of objectives	<i>To what extent did the projects contribute to the overall CIF objectives?</i> - <i>Has the commercial benefit for private partners increased (What added value was generated for the respective companies?)</i> - <i>Was more value created locally (improved production, processing, marketing, market access)</i> - <i>Did the knowledge exchange improve (through events, factsheets and handbooks)?</i> <i>What reasons or factors supported or hindered achieving outcomes and impacts? (the presentation of the different perspectives is desirable: Target group, companies and GIZ country teams)</i>	Contribution analysis based on final reports and interviews with project partners Final reports Interviews with project partners and farmers
Unintended results	<i>Have there been any unintended results (positive and negative)?</i>	Explorative interviews with all applicable stakeholders

Impact

Impact: assessment dimensions	Evaluation question	Basis for assessment
Contribution to higher-level (intended) development results/changes	<p><i>How does the overall achievement of the project's outcomes contribute to the programme (INA) goals?</i></p> <ul style="list-style-type: none"> - <i>Has the profitability of smallholder coffee farmers increased? Which projects contributed to a living income/living wage</i> - <i>Are there more equitable distribution of value added in the coffee supply chain?</i> - <i>Deforestation</i> - <i>Transparency and traceability</i> <p>Where do the CIF projects already make a potential contribution to structural policy issues: <i>Do projects contribute to compliance with EU Regulation on Deforestation-Free Product (EUDR) or the German Supply Chain Act?</i></p>	<p>Basis for assessment:</p> <ul style="list-style-type: none"> - Increases in income - Increased production - environmentally friendly production - Development of digital systems - Gender equality - Living Wage Benchmarks from the ALIGN-Database
Contribution to higher-level (unintended) development results/changes	<p><i>Have there been any unintended results (positive and negative)?</i></p>	Explorative interviews with all applicable stakeholders

Efficiency

Efficiency: assessment dimensions	Evaluation question	Basis for assessment
Transformation efficiency (including production efficiency (Resources/Outputs) and allocation efficiency (Resources/Outcome))	<p><i>Instruments of the CIF on Management Level:</i></p> <p><i>Were the activities under the CIF suitable to achieve the outputs and outcomes?</i></p>	Interviews with country teams and steering unit, also with project partners

Sustainability

Sustainability: assessment dimensions	Evaluation question	Basis for assessment
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Capacities of the beneficiaries and stakeholders	<p><i>Are there projects with upscaling replicating potentials?</i></p> <ul style="list-style-type: none"> - <i>Special focus on projects focussing on digitalisation and traceability</i> - <i>Not just if projects were scaled up but also if there is further potential for the future (are there any future plans?)</i> 	<p>Replicability (additional effort: low, medium or high resource input) and scalability (non-scalable, scalable with resource input or scalable with minimal resource input)</p>
Contribution to supporting sustainable capacities	<p><i>Has the financial support contributed to the fact that the supported enterprises have become more sustainable?</i></p> <p><i>To what extent can the positive (and any negative) results of the intervention be deemed durable?</i></p> <p><i>Are the systems established in the projects still being used and are they in any way interoperable with other "big" traceability systems already in place?</i></p>	<p>Financial sustainability of their business model, financial funding for piloted activities</p> <p>Sustainable human capacities</p> <p>Sustainable organisational capacities (institutionalisation of systems)</p> <p>External factors influencing the durability</p>

Annex 2: Interview guideline

Coffee Innovation Fund Interview Guideline

Interviewee	
Interviewer	
Date	
Location	

Introduction:

Thank you for your availability for this interview. As the Coffee Innovation Fund project is funded by the German Ministry for Economic Cooperation and Development, an evaluation was commissioned of the funded organisations in Ethiopia, Indonesia, Uganda, Rwanda, and Kenya. This will be carried out by us as external evaluators. The purpose of the evaluation is to learn from the implementation of the last years in order to improve the project approach. We would therefore like to point out that it is extremely important that you answer honestly, do not hide anything, and help us to develop good recommendations for the future.

In the next hour, we would like to discuss various aspects of the project with you. We have prepared a semi-structured interview guide that includes questions on the relevance, effectiveness, impact, and sustainability of the project outcomes.

We would like to assure you that we will treat your data confidentially and anonymise all data received in the final report in compliance with the requirements of European data protection law.

First of all, we would like to introduce ourselves briefly and ask you to introduce yourself briefly.

Question	Answer
<i>Please briefly explain the project that has been funded to us?</i>	

Relevance

Question	Answer
<p><i>Looking at project, did the cooperation with GIZ meet the biggest needs that you have as a company/as an organisation?</i></p> <p><i>Did the project also meet the needs of the coffee farmers and industry? If yes, how?</i></p> <p><i>Which other needs do you/do the farmers and the industry have that were not met but should be met in the future?</i></p>	
<p><i>How would you describe the overall design of the project. Was it appropriate and realistic in terms of technical, time, organisational and financial aspects?</i></p>	
<p><i>Which challenges were coming up because of Covid-19 in terms of this project, e.g. in collaboration with GIZ, with further partners etc.</i></p> <p><i>How did you deal with it?</i></p>	

Effectiveness

Question	Answer				
<p><i>To what extent were the (intended) project objectives achieved?</i></p> <p><i>To what extent were all indicators achieved?</i></p> <p><i>(please compare target and current value)</i></p> <p><i>Please give an explanation if they were not achieved and why not.</i></p>					
<i>On a scale from 1 to 5 (with 5 being the best and 1 being the least)...</i>					
<p><i>To what extent was added value generated (including commercial benefit) for you as the cooperating company?</i></p>	<p>1</p> <p>Not at all</p> <p><input type="radio"/></p>	<p>2</p> <p><input type="radio"/></p>	<p>3</p> <p><input type="radio"/></p>	<p>4</p> <p><input type="radio"/></p>	<p>5</p> <p>Very much</p> <p><input type="radio"/></p>
<p><i>Please explain and give an example?</i></p> <p>What are the reasons for it (factors of success, challenges and weaknesses)?</p>					
<p>To what extent did the knowledge exchange improved (through events, factsheets and handbooks)?</p>	<p>1</p> <p>Not at all</p> <p><input type="radio"/></p>	<p>2</p> <p><input type="radio"/></p>	<p>3</p> <p><input type="radio"/></p>	<p>4</p> <p><input type="radio"/></p>	<p>5</p> <p>Very much</p> <p><input type="radio"/></p>
<p><i>Please explain and give an example?</i></p>					
<p><i>...to what extent has the profitability of smallholder coffee farmers increased through the project?</i></p>	<p>1</p> <p>Not at all</p> <p><input type="radio"/></p>	<p>2</p> <p><input type="radio"/></p>	<p>3</p> <p><input type="radio"/></p>	<p>4</p> <p><input type="radio"/></p>	<p>5</p> <p>Very much</p> <p><input type="radio"/></p>
<p><i>Please explain and give an example?</i></p>					
<p><i>...to what extent has production improved?</i></p>	<p>1</p> <p>Not at all</p> <p><input type="radio"/></p>	<p>2</p> <p><input type="radio"/></p>	<p>3</p> <p><input type="radio"/></p>	<p>4</p> <p><input type="radio"/></p>	<p>5</p> <p>Very much</p> <p><input type="radio"/></p>
<p><i>Please explain and give an example?</i></p>					

...to what extent has processing improved?	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
Please explain and give an example?					
...to what extent has marketing improved?	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
Please explain and give an example?					
...to what extent has market access improved?	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
Please explain and give an example?					
Have there been any unintended results (positive and negative)?					

Impact

Question	Answer				
<p><i>Information: The concept of a living income is considered the net income required for a household in a particular place to afford a decent standard of living for all members of that household. Living income is triggered by different success factors. Please tell us in how far you were able to improve the situation for the following aspects:</i></p> <p><i>On a scale from 1 to 5 (with 5 being the best and 1 being the least) to what extent did you improve the situation of the farmers?</i></p>					
1) To what extent did you improve the Agricultural Services (know-how, farm inputs (e.g. seeds, fertiliser, tools), warehouses, drying sheds, and post harvest machinery. <i>Links to SDGs: 2, 12, 13</i>	<p>1</p> <p>Not at all</p> <p>○</p>	<p>2</p> <p>○</p>	<p>3</p> <p>○</p>	<p>4</p> <p>○</p>	<p>5</p> <p>Very much</p> <p>○</p>
<i>Please explain and give an example?</i>					
2) To what extent did you improve the Provision of Financial Services (this includes improving affordability and access to credit, loans, savings and insurance). <i>Links to SDGs: 1,8,9,10</i>	<p>1</p> <p>Not at all</p> <p>○</p>	<p>2</p> <p>○</p>	<p>3</p> <p>○</p>	<p>4</p> <p>○</p>	<p>5</p> <p>Very much</p> <p>○</p>
<i>Please explain and give an example?</i>					
3) To what extent did you improve the market access (this relates to stabilising demand, payment of fair prices and favourable terms of trade.) <i>Links to SDGs: 2, 8, 12</i>	<p>1</p> <p>Not at all</p> <p>○</p>	<p>2</p> <p>○</p>	<p>3</p> <p>○</p>	<p>4</p> <p>○</p>	<p>5</p> <p>Very much</p> <p>○</p>
<i>Please explain and give an example?</i>					
4) To what extent did you improve Gender equality (this relates to women's participation in smallholder farming and equal economic empowerment.) <i>Links to SDG 5, 10</i>	<p>1</p> <p>Not at all</p> <p>○</p>	<p>2</p> <p>○</p>	<p>3</p> <p>○</p>	<p>4</p> <p>○</p>	<p>5</p> <p>Very much</p> <p>○</p>
<i>Please explain and give an example?</i>					
5) To what extent did you improve the provision of basic services (this relates	<p>1</p> <p>Not at all</p>	<p>2</p>	<p>3</p>	<p>4</p>	<p>5</p> <p>Very much</p>

to services which aren't always directly linked to farming including the availability and accessibility of quality education, health and water.) <i>Links to SDG 6</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Please explain and give an example?</i>					
<i>To what extent were you able to improve the coffee supply chain towards a more equitable distribution of value added?</i>	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
<i>Please explain and give an example?</i>					
<i>To what extent were you able to contribute to decreased deforestation</i>	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
<i>Please explain and give an example?</i>					
<i>To what extent were you able to improve the transparency and traceability of the coffee value chain</i>	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
<i>Please explain and give an example?</i>					
<i>Have there been any unintended results (positive and negative)?</i>					

Efficiency

Question	Answer
Now we would like to talk about the overall instrument of the Coffee Innovation Fund.	
<p><i>How did you experience the entire process of this coffee innovation fund starting from</i></p> <ul style="list-style-type: none"> - <i>Application process</i> - <i>Amount of funds</i> - <i>Reporting</i> - <i>Support provided by GIZ</i> - <i>...</i> 	
<i>Were the activities under the CIF suitable to achieve the outputs and implement the activities?</i>	
<i>Were the activities under the CIF suitable to achieve the intended results and outcomes?</i>	
<i>What would be your suggestion for a better solution?</i>	
<i>What could be changed to make the Coffee Innovation Fund more efficient and effective?</i>	

Sustainability

Question	Answer				
<i>Now we would like to talk about the sustainability of the project.</i>					
<i>On a scale from 1 to 5 (with 5 being the best and 1 being the least) to what extent ?</i>					
Are you still making use of the activities that have been piloted under the coffee innovation fund? Please explain?					
If applicable, are your traceability innovations (especially concerning digital innovations) interoperable with other "big" traceability systems? Please explain					
Did you already scale your project up?					
If no, to what extent do you think the project is replicable?	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
How much effort would be needed to replicate the project	Low effort <input type="radio"/>		Medium effort <input type="radio"/>		High effort <input type="radio"/>
Please explain and give an example?					
If no, to what extent do you think the project is scalable?	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
How much effort would be needed to scale the project?	Not scalable <input type="radio"/>		Scalable with minimal resource input <input type="radio"/>		Scalable with considerable input <input type="radio"/>
Please explain and give an example?					
To what extent did your organisation become overall more sustainable through the coffee innovation fund?	1 Not at all <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 Very much <input type="radio"/>
Please explain and give an example?					
To what extent did you become more sustainable	1	2	3	4	5

financially (business model adaptation)	Not at all ○	○	○	○	Very much ○
Please explain and give an example?					
To what extent did you become more sustainable concerning human capacities?	1 Not at all ○	2 ○	3 ○	4 ○	5 Very much ○
Please explain and give an example?					
To what extent did you become more sustainable concerning your organisational processes?	1 Not at all ○	2 ○	3 ○	4 ○	5 Very much ○
Please explain and give an example?					
Which external factors had the biggest influence on you?					
Do you think these influence are also a threat in the future?					
What are you going to do about them?					