

Design of a Socio-Economic Impact Assessment Framework for Small-Scale Entrepreneurship Projects in Tanzania

by Margherita Andorno



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Table of Abbreviations

Abbreviation	Meaning
SEIA	Socio-Economic Impact Assessment
SMEs	Small and Medium-sized Enterprises
GDP	Gross Domestic Product
WBCSD	World Business Council for Sustainable Development
BoP IAF	Base of the Pyramid Impact Assessment Framework
NGO	Non-Governmental Organisation
YEP	Youth Empowerment Project (organisation in Misungwi)
SDGs	Sustainable Development Goals
IRIS	Impact Reporting and Investment Standards
IFC	International Finance Corporation
OECD	Organisation for Economic Co-operation and Development
UNDP	United Nations Development Programme
PPI	Progress out of Poverty Index

Table 1: Table of Abbreviations

Executive Summary

Small-scale entrepreneurship in low-income countries such as Tanzania plays an important role in supporting economic growth, reducing poverty, and promoting social development. In recent years, there has been a steady increase in projects led by NGOs, universities, and local organisations that aim to support existing businesses or help create new ones. Despite this, there is no commonly used framework to assess their socio-economic impact in a clear and structured way. Most existing tools are designed for large companies, focus mainly on financial outcomes, or require resources and time that small-scale projects cannot afford. This makes it difficult for practitioners to assess whether a project has had a positive effect, what changes it brought about, and how future support could be improved.

This research seeks to address this gap by designing a context-sensitive framework specifically aimed at assessing the socio-economic impact of small-scale entrepreneurship projects in Tanzania. The main research question guiding this work was: *What context-relevant framework can be designed to assess the socio-economic impact of small-scale entrepreneurship projects in Tanzania?*

To answer this question, the study explored what indicators are used to measure impact, which are most suitable for small-scale projects, and what insights can be gained from applying the framework in practice.

Tanzania was chosen because small and medium-sized enterprises are a key part of its economy, making up about 95 percent of all registered businesses and contributing nearly half of GDP (Cooper, 2023), which makes it well suited to explore how the impact of entrepreneurship can be assessed in practice. Moreover, many SMEs rely on partnerships and external support to overcome structural barriers such as limited access to finance and markets. Second, the research benefitted from established collaborations between the Delft University of Technology and local organisations such as YEP Tanzania and the CHAKO organisation, which facilitated field access and overall logistical coordination.

The design of the framework followed a multi-phase process grounded in a Design Thinking approach. A literature review was conducted, identifying around 1,800 indicators from established frameworks. Although these sources primarily addressed large-scale or corporate projects, they provided a valuable starting point. Indicators were filtered in successive steps based on relevance, measurability, and contextual fit, significantly reducing their number.

To complement this theoretical foundation, twelve semi-structured expert interviews were conducted with academics, programme coordinators, and local practitioners to validate the selection and integrate practical insights.

Building on these findings, a prototype framework was developed and tested during a one-month field study in Tanzania, involving two weeks of work with YEP Tanzania in Misungwi and two weeks with the CHAKO organisation in Zanzibar. During this period, interviews were conducted with project participants to assess the perceived relevance of the identified impact areas, the clarity of the questions, and their cultural sensitivity. In addition, the framework was applied to two case studies consisting of student-led projects implemented in recent years to evaluate its usability and consistency.

The final version of the framework is designed to be accessible, time-efficient, contextually appropriate, and adaptable to different types of interventions. It is available in four formats, in Swahili and English, with options to administer it after completion or before and after an intervention. The framework is provided both as a text-based tool and as an online version to facilitate wider use.

While the framework provides a practical way to assess socio-economic impact, it also has limitations. Further testing across more projects is recommended to refine its validity, understand when income-related indicators are appropriate, and ensure it remains relevant in diverse contexts. Overall, this work has introduced a structured approach to measuring the impact of small-scale entrepreneurship projects, filling a gap where no practical tools were previously available.

Preface

Writing this research has been a meaningful journey. At first, I was not fully convinced about the value of developing something that focused primarily on measurement. I wanted to work on something more concrete and direct. However, over time, I started to understand how important it is to measure things properly. During my fieldwork in Tanzania, I had many conversations with local coordinators and saw firsthand how useful it was for them to hear the results of the interviews. Many of the insights that emerged were completely new to them. They had never collected that kind of information before, and they immediately started reflecting on how they could improve their projects. That moment helped me realise that this work can truly make a difference.

I now believe that the results of this thesis can be helpful in practice. This was confirmed not only by the interest shown by people in Tanzania but also during interviews with experts. They expressed curiosity and support for the topic and confirmed that there is a clear gap in the research. There is currently no tool that specifically looks at the impact of small-scale projects, and even less so for small-scale entrepreneurship initiatives.

The most important part of this experience was undoubtedly the fieldwork. At first, I had many doubts, especially because it was my first time in Africa and I was traveling alone. In the end, this became the part that shaped the project the most, as well as an extraordinary personal experience. Being there, talking to people, and seeing the projects in person gave me insights I could never have gained by only reading or working behind a screen. It also made me realise how essential it is to design something that works in the local context, not just in theory. Beyond the research, I was also lucky to experience Tanzania in a genuine way. I met wonderful people and built friendships that I truly hope will continue in the future.

Looking back, I feel proud of the framework I developed. I am aware that it is not perfect and still needs further testing, but I believe it offers a solid starting point. More than anything, this experience has made me even more motivated to keep working on initiatives that combine research and technology to create positive impact in challenging contexts, perhaps measured with this framework or future iterations of it.

I would like to thank my Chair Victor Scholten and my supervisors Ellen van Andel and Fatima Zahra Abou Eddahab Burke, first of all for giving me the opportunity to carry out this thesis project. I still remember the moment I learned it would be possible. I was sitting in Ellen's office and nearly cried with happiness. Thank you also for all the support, from the travel tips to the weekly meetings and the meticulous guidance on how to conduct the research and structure my work. I feel very fortunate and know I have learned a lot from your feedback.

Thank you to all the wonderful people I met in Tanzania. Without you, this project would never have happened.

Thank you to my family, who, even if you are sometimes understandably worried about my decisions (as you were in this case), always support me wholeheartedly and let me be free to be who I am.

Thank you to my friends in Delft. Thanks to you, I can truly call this rainy city home. And thank you to my friends back in Turin for always making me feel like I never left whenever I return.

Thank you to the Energy for Refugees family for showing me that it is possible to create impactful projects as a student.

Finally, thank you TU Delft. After these two years, I have a much clearer sense of who I am and what I want to do next.

Introduction

The opening chapter discusses the absence of suitable frameworks for evaluating the socio-economic impact of small-scale entrepreneurship initiatives in low-income contexts. In response to this gap, the thesis develops a context-specific framework designed to assess such projects in Tanzania. The chapter further describes the motivation behind the research, formulates the main research question and sub-questions, sets out the research objective, and provides an overview of how the thesis is structured.

1.1. Research Context

The Role of Small-Scale Entrepreneurship in Low-Income Contexts

In recent years, entrepreneurship has been increasingly recognised as a key contributor to development, with growing consensus that supporting innovation and small businesses is essential not only for economic growth but also for achieving positive social impacts. In low income countries, small scale entrepreneurial initiatives often represent one of the few available means to strengthen local economies, expand opportunities, and support community development (Gherghina et al., 2020; Redondo-Rodríguez et al., 2023; Rwehumbiza & Hyun, 2024).

In the sub Saharan African context, small and medium sized enterprises (SMEs) play a particularly central role. They make up approximately 95% of registered businesses and contribute around 50% of the region's GDP (Cooper, 2023). Despite their centrality to the economic fabric of the region, SMEs in sub-Saharan Africa continue to face structural and systemic challenges that limit their potential. Financial constraints affect nearly 40% of these enterprises, while inadequate infrastructure, limited market access, and bureaucratic inefficiencies further hamper their growth (Cooper, 2023; International Finance Corporation, 2019). These persistent obstacles not only threaten the survival of individual businesses but also undermine broader efforts toward economic transformation.

External Support and International Partnerships

In response to these challenges, many SMEs increasingly rely on partnerships and support from international institutions, particularly those based in high income countries. Initiatives such as the World Bank's SME Finance Forum and the European Union's External Investment Plan have demonstrated how targeted financial and technical assistance can help overcome local constraints and strengthen entrepreneurial ecosystems (European Commission, 2021; SME Finance Forum, 2020). This external support is not limited to existing enterprises. Governments, development agencies, philanthropic foundations, private companies, and universities from the Global North also actively promote the emergence of new entrepreneurial initiatives. By providing financial resources, technical expertise, and access to international networks, they help create favourable conditions for aspiring entrepreneurs. These efforts contribute not only to the growth of individual businesses but also to the formation of more resilient and inclusive economic ecosystems. As a result, both the reinforcement of existing SMEs and the encouragement of new ventures are essential components of long term development strategies in low income contexts (Keller & Smith, 2023; Manning & Vavilov, 2023).

Limitations of Existing Evaluation Approaches

Although small scale entrepreneurship is increasingly recognised as an important factor in development, and despite the growing involvement of institutions from high income countries in supporting such initiatives, the tools available to assess their effectiveness remain limited. In particular, there is no widely accepted framework for assessing the impact of small-scale entrepreneurship projects in low-income contexts. Existing methodologies often focus on large-scale programmes or place exclusive emphasis on economic impacts, leaving a gap in the evaluation of smaller initiatives. Common indicators such as investment levels, business growth, or financial return capture only part of the picture. They often fail to reflect the broader social impact of these initiatives, such as improvements in individual well-being, increased autonomy, or the strengthening of community structures (Organisation for Economic Co-operation and Development, 2023).

Small-scale entrepreneurship projects are initiatives that support the creation or development of income-generating activities carried out by individuals, informal groups, or small organisations operating with limited financial and human resources. These projects often focus on local markets and are characterised by modest turnover, fewer than 20 employees, and restricted access to formal financing (Beck et al., 2005; International Finance Corporation, 2019). This limitation is closely linked to the dominant role that gross domestic product (GDP) has played for decades as the primary measure of progress. Since the post-1945 period GDP has been widely used by development institutions as a proxy for advancement. However, this approach has faced increasing criticism. GDP does not take into account how wealth is distributed, nor does it reflect environmental costs or people's quality of life. It includes all market activity regardless of its social or environmental consequences and often prioritises short term growth over long term (Harriss, 2014).

In light of these limitations, researchers and institutions have increasingly called for a more comprehensive understanding of development and a multidimensional approach that includes also the social aspect alongside economic performance is now widely considered essential (Burchi & Rippin, 2020; (UNDP), 2022).

In this research, *impact* is understood as the set of significant changes resulting from a project or intervention. These changes can be intended or unintended, positive or negative, and can appear at different moments. Although there is no universally agreed timeframe that separates outcomes from impacts, a common distinction is provided by the Theory of Change framework. According to this perspective, impacts are the transformations that go beyond immediate outputs and more direct outcomes, and they may only become visible some time after the activities have been implemented (Connell, 1995; Taplin & Clark, 2013). More specifically, a Theory of Change describes a sequence in which:

- **Inputs** are the resources invested, often measured in financial terms.
- **Activities** are the concrete actions undertaken, such as training programmes or product distribution.
- **Outputs** are the direct, immediate results of these activities, like the number of beneficiaries reached.
- **Outcomes** refer to shorter-term or intermediate changes in behaviour, skills, practices, or access to resources.
- **Impacts** describe significant improvements in living conditions, such as higher income stability, better education, or improved health, which typically emerge after some time that project activities are completed. (Stern et al., 2012b).

While impacts often take more time to emerge than outputs and outcomes, in practice the timeframe can vary depending on the project and its context. What defines an impact is not simply when it occurs, but the extent to which the change is meaningful and likely to last beyond the initial intervention (Taplin & Clark, 2013). The lack of context specific tools for evaluating small scale entrepreneurship points to a broader challenge, both methodological and practical. Understanding the impact of these projects is essential not only to ensure accountability, but also to improve how future interventions are designed and implemented (Gertler, Martinez, Premand, Rawlings, & Vermeersch, 2016; Stern et al., 2012a). Without a more nuanced and multidimensional perspective, it is difficult to assess what works, in which context, and for whom.

Measuring impact brings value to all actors involved by providing a basis for learning, accountability, and more effective allocation of resources (Brest & Born, 2012; Copestake, 2014). Without adequate tools

that integrate both social and economic dimensions, evaluations risk overlooking important aspects and misjudging the success or limitations of a project. As several scholars have pointed out, the absence of such tools not only reduces learning opportunities but also limits the potential of these initiatives to generate lasting and equitable change (Eckhardt & Shane, 2018).

Socio-Economic Impact Assessment

One approach that responds to this gap is the socioeconomic impact assessment (SEIA), which expands the scope of evaluation by jointly considering both economic and social aspects. Developed in the early 1990s as an evolution of previous social assessment methods, SEIA was introduced to better understand how development initiatives influence communities not only in terms of income and employment, but also in relation to well-being, participation, and local capacity building (Esteves & Vanclay, 2012; Vanclay, 2003).

This thesis adopts SEIA because it offers a structured and adaptable framework that fits the characteristics of small scale entrepreneurship projects in Tanzania. These initiatives often operate at the local level and generate transformations that are not fully captured by traditional economic indicators. SEIA makes it possible to include both tangible economic results and broader social effects, which are essential to assess long term outcomes.

Alternative approaches, such as environmental or sustainability assessment, were considered but not selected, as they focus primarily on environmental outcomes. The decision to focus on social and economic dimensions stems from the belief that, in the current Tanzanian context, these are the most urgent and relevant areas to understand the value of entrepreneurship.

This dual perspective enables a more holistic understanding of how development initiatives affect communities at multiple levels (Rodrigues & Díez, 2017). While there is no single, universally accepted definition of economic and social impact, it is important to distinguish between these two dimensions to structure the analysis in a clear and systematic way. In this thesis, the following descriptions are adopted:

- **Economic impact:** The effect of a project or policy on local economic activity. This includes changes in employment, business revenue, value added, household income, property values, and other indicators that reflect the material well-being of individuals and communities (Weisbrod & Weisbrod, 1997).
- **Social impact:** The transformations in social relations, community structures, and cultural norms resulting from an intervention. It encompasses changes in how people live, interact, and organise their everyday life, including dimensions such as social cohesion, inclusion, agency, and participation (Burdge & Vanclay, 1996).

While analytically distinct, economic and social impacts are deeply interconnected. Improvements in education, empowerment, or community engagement often foster greater economic participation and productivity. Conversely, increases in income or employment can enhance individuals' capacity to participate in community life, access essential services, and exercise agency.

For this reason, the present research adopts an integrated socio-economic perspective, treating economic and social outcomes not as separate domains but as interrelated components of the same transformation process. This approach ensures that the assessment captures both tangible and intangible changes, offering a more accurate representation of the project's overall impact.

Some frameworks have been developed to move beyond financial metrics and offer more holistic approaches to assessing socio-economic impact in low income settings. Ten of these are presented in a report by the World Business Council for Sustainable Development (WBCSD, 2013). Although not specifically designed for small-scale entrepreneurship, these frameworks provide useful insights into relevant indicators and assessment structures.

Among these ten, the most recognised are the Base of the Pyramid Impact Assessment Framework (BoP IAF), the Measuring Impact Framework, and the Poverty Footprint Framework. The key indicators included in each of these frameworks are summarised below.

The Base of the Pyramid Impact Assessment Framework, developed by Ted London, evaluates impact through three dimensions:

- **Economic Well-Being:** Employment, local businesses, market competition.

- **Capability Well-Being:** Access to infrastructure, future aspirations.
- **Relationship Well-Being:** Social equity and environmental factors.

Although conceptually sound, this framework is resource-intensive and designed primarily for corporate initiatives, making it difficult to apply to small scale entrepreneurship projects with limited time and capacity (London, 2016).

The Measuring Impact Framework, introduced by the World Business Council for Sustainable Development (WBCSD), assesses socio-economic contributions through four categories:

- **Governance and Sustainability**
- **Assets and Infrastructure**
- **People and Skills**
- **Financial Flows**

While methodologically robust, its corporate focus and extensive data requirements limit its relevance for grassroots entrepreneurship initiatives (World Business Council for Sustainable Development (WBCSD), 2017).

The Poverty Footprint Framework, developed by Oxfam and the United Nations Global Compact, offers a multidimensional view of poverty by assessing business impacts across five areas: livelihoods, empowerment, health and well-being, stability, and inclusion. Despite its comprehensive scope, it shares the same limitations as the other two: long timeframes, high resource needs, and an orientation toward large scale corporate engagement (United Nations Global Compact, 2015).

A synthesis of key indicators from these frameworks is presented in Table 1.1.

Framework		Economic Indicators	Social Indicators
BoP IAF		Jobs, economic opportunities, existing businesses, market competition	Access to information and infrastructure, aspiration for the future, social equity, environmental factors
Measuring Framework	Impact	Infrastructure development, availability of products and services, employment, job security, procurement, taxation, investment in local economies	Corporate governance, transparency, stakeholder engagement, skills development, work-life balance
Poverty Framework	Footprint	Earnings, wages and benefits, income security, small scale enterprise support, economic development of the community	Workplace safety, healthcare access, vulnerability to displacement, access to essential resources, wage disparities, inclusion of marginalised groups, worker rights, participation in decision-making, child development, environmental health, community voice

Table 1.1: Comparison of Economic and Social Indicators across Three Impact Assessment Frameworks

Despite differences in structure and focus, the three frameworks converge on several core indicators. On the economic side, they highlight employment, income security, and support for small enterprises, elements directly relevant to small scale entrepreneurship projects. On the social side, they all include aspects such as access to basic services, inclusion, worker protection, and skill development. These recurring indicators reflect a shared understanding of what constitutes meaningful socio-economic progress, even if each framework applies different methodologies.

1.2. Research Objective

The objective of this research is to design a framework capable of systematically assessing the socio-economic impact of small-scale entrepreneurship projects in Tanzania.

As mentioned before, these projects are understood as initiatives led by individuals, informal groups, or small organisations with limited resources, which aim to create income-generating activities, strengthen local economies, and contribute to community development.

The decision to focus on Tanzania is deliberate. Working within a specific national context makes it possible to tailor the framework to local socio-cultural and institutional conditions, increasing both its validity and relevance for stakeholders who operate in similar environments. Tanzania represents a particularly compelling case because of the widespread presence of small-scale entrepreneurship initiatives supported by international and local partnerships. Moreover, the existence of long-standing projects developed through the International Entrepreneurship and Development minor at TU Delft provided an opportunity to engage directly with practitioners and beneficiaries and to test the framework in real-world conditions.

The framework is intended for **NGOs, donors, local associations, and university programmes** that fund, implement, or evaluate small-scale entrepreneurship projects in low-income settings. Its primary purpose is to offer a structured and accessible tool for measuring impact in a way that goes beyond conventional financial indicators. In doing so, it seeks to capture both material and less tangible transformations that these projects can generate in people's lives and communities.

A central aim of the research is to ensure that the framework is both conceptually robust and applicable in diverse operational contexts. To this end, it draws on a **Design Thinking** approach that emphasises the balance of three key dimensions:

- **Desirability:** the extent to which the tool is user-centred and reflects what people need, value, and find relevant in their own context.
- **Feasibility:** what is technically and operationally achievable within resource constraints.
- **Viability:** what can be sustained over time, institutionally and financially (Dam & Siang, 2020).

By integrating these principles, the framework is designed to be context-sensitive, clear in its structure, and capable of supporting more informed and equitable decision-making processes.

In line with these objectives, particular attention was dedicated throughout this research to ensuring that the framework meets criteria of clarity, relevance, and usability. The intention is not only to provide an academic contribution but also to deliver a tool that can be adopted by those working on the ground to support entrepreneurship in settings where resources are limited but the potential for positive impact is significant.

1.3. Research Questions

The study is guided by the following main research question:

What context-relevant framework can be designed to assess the socio-economic impact of small-scale entrepreneurship projects in Tanzania?

To address this overarching question, the following sub-questions are explored:

1. **What indicators are being used to measure social and economic impact?**
This question identifies the most relevant indicators for assessing impact, based on a review of existing frameworks and literature.
2. **Which (set of) indicators are most suitable for application in small-scale projects?**
This question focuses on selecting and adapting indicators for practical application, ensuring clarity and usability.
3. **What insights can be gained from applying the developed framework in a real-life setting?**
This question evaluates the feasibility and relevance of the framework through field testing in Tanzanian entrepreneurship projects.

1.4. Connection to the MSc Management of Technology Programme

As a student of the MSc Management of Technology (MOT) at TU Delft, I developed this thesis to reflect the programme's interdisciplinary focus on strategy, innovation, data analysis, and ethics applied to real-world challenges. The work integrates knowledge and skills from multiple courses:

- **Context-sensitive innovation and strategy.** The research draws on the course *Technology, Strategy, and Entrepreneurship*, creating a framework adapted to the conditions of small-scale entrepreneurship in Tanzania rather than applying a standardised model.
- **Digital design and user focus.** The course *Digital Business Process Management* guided the design and structure of the tool, with particular attention to process alignment and usability. The development of a digital version that enables real-time visualisation demonstrates how digital solutions can improve decision-making in practice.
- **Systems thinking and socio-technical integration.** The course *Technology Dynamics* helped position the framework within broader social and institutional systems. This shaped the inclusion of indicators related to empowerment, inclusion, and resilience, in addition to economic measures.
- **Data analysis and indicator development.** The courses *Business Analytics* and *Spatial Data Science* contributed to the structured process of selecting, filtering, and validating indicators, combining qualitative and quantitative methods.
- **Methodological design and research ethics.** The course *Research Methods* provided the foundation for defining the research problem, developing the conceptual model, and designing the interview process. It also supported reflection on reliability and ethical considerations.
- **Reflexivity and positional awareness.** The course *Inter- and Intra-organizational Decision Making* emphasised the importance of recognising one's role, power dynamics, and potential biases when conducting fieldwork in a different cultural setting.

By combining these areas of knowledge in strategy, design, systems thinking, analytics, and reflexivity, this thesis illustrates how technology can be applied not only to improve performance but also to support more inclusive, context-aware, and ethically grounded initiatives.

1.5. Thesis Outline

The thesis is structured as follows:

- **Chapter 1: Introduction**
Presents the background, research objective, research questions, and the overall motivation for the study.
- **Chapter 2: Methodology**
Describes the research approach, the design process, and the methods used to collect and analyse data.
- **Chapter 3: Knowledge Aggregation**
Presents the findings from the literature review and expert interviews, which informed the selection of impact areas and indicators and guided the overall framework design.
- **Chapter 4: Conceptualisation of the Framework**
Explains how the results from Chapter 3 informed the design choices, presents the prototype of the framework, and details its initial structure.
- **Chapter 5: Testing of the Framework**
Reports on the testing phase carried out in Tanzania, including interviews with individuals affected by the projects and pilot testing through case studies.
- **Chapter 6: The Final Framework**
Presents the refined version of the framework, integrating insights from the testing phase.
- **Chapter 7: Conclusion**
Summarises the main findings and contributions of the research, and highlights its implications.
- **Chapter 8: Reflection**
Provides academic and societal reflections on the research process and its outcomes.

2

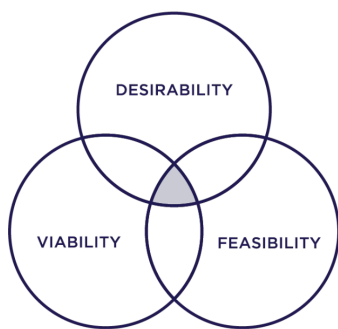
Methodology

This chapter outlines the methodology adopted in this research, grounded in a human-centered Design Thinking approach. It describes the key steps from initial exploration to framework testing and discusses ethical considerations.

2.1. Research Process

Given the aim of this research to design a context-specific and usable framework for assessing the socio-economic impact of small-scale entrepreneurship projects in Tanzania, the Design Thinking methodology provides a fitting foundation. It is adopted as the overarching approach for its ability to address complex challenges where user needs and contextual constraints must be balanced.

Design Thinking is a human-centered, iterative process originally developed at Stanford University, now widely recognized for developing innovative and actionable solutions to so-called wicked problems¹ (of Design at Stanford, 2020). Assessing impact in low-income contexts qualifies as a wicked problem: it is complex, involves multiple stakeholders, depends on local conditions, and lacks a universal evaluation model. Design Thinking addresses this by combining analytical depth with iterative prototyping, while centering on human needs and lived experiences.



A fundamental strength of the methodology lies in its emphasis on the intersection of three core dimensions: desirability (what people truly need and value), feasibility (what is technically and operationally achievable), and viability (what can be sustained over time, both financially and institutionally) (Dam & Siang, 2020). This triad is central to the Design Thinking approach and aligns closely with the goals of this research: to develop a framework that is theoretically sound, contextually feasible, and meaningful for the intended beneficiaries and future users of the tool.

Figure 2.1: Core Dimensions of Design Thinking

During the Empathize phase, this research explores the problem space to gather an initial understanding of the context and identify key challenges. The insights developed in this stage are then synthesized to define the core issues that the framework aims to address.

In the Define phase, the study focuses on analyzing and synthesizing the material collected through the literature review and expert interviews. The purpose of this stage is to transform the initial observations

¹A wicked problem is one that is difficult or impossible to solve due to incomplete, contradictory, and evolving requirements (Johnston & Gulliver, 2022).

and contextual understanding developed during the Empathize phase into a clear and focused problem definition. In the Ideate and Prototype phases, possible solutions are generated and translated into the initial structure of the framework. Through the Test and Implement phases, the framework is iteratively refined based on continuous feedback from individuals directly affected by the entrepreneurship projects and two case studies. This cyclical process of testing and revision ensures that the final tool is not only methodologically robust, but also usable, relevant, and aligned with the realities of small-scale entrepreneurship in Tanzania. Design Thinking thus emerges as the most appropriate methodological approach for this study. Its iterative, user-centered process enables the development of a framework that is both conceptually grounded and effectively suited to the needs and constraints of the targeted context.

An illustration of the process applied in this research is presented in Figure 2.2.

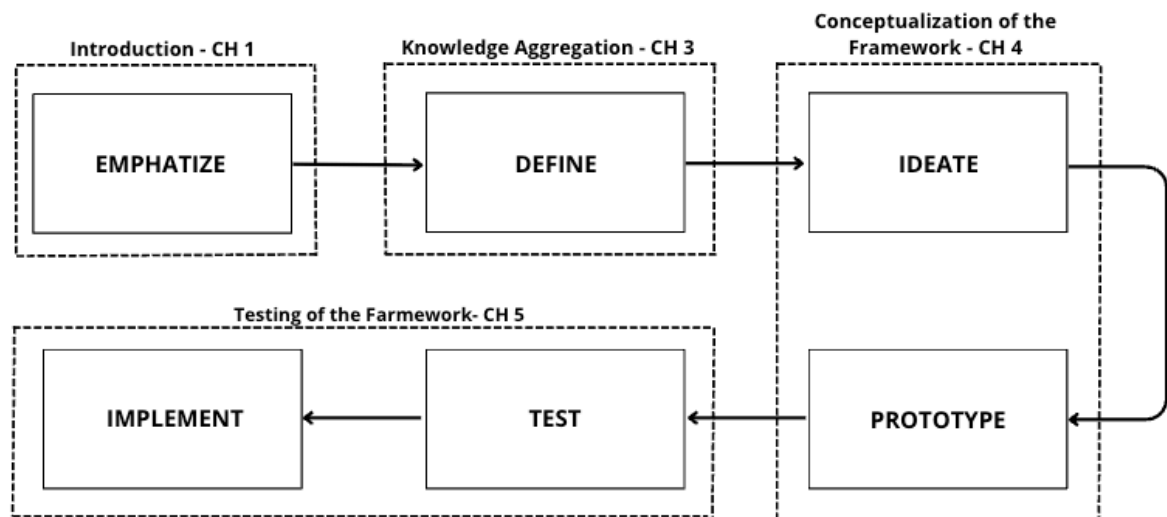


Figure 2.2: Mapping the Design Thinking Process Across Thesis Chapters

The following provides a concise overview of the overall research process:

Empathize - Introduction

The Empathize phase is the first stage of the Design Thinking process. In this phase, research is carried out to gain a deeper understanding of users' needs by setting aside assumptions and carefully observing the context. It aims to build a clear picture of users' experiences, motivations, and the challenges they face.

In this study, the Empathize phase is reflected in the Introduction, which provides an overview of the socio-economic context of small-scale entrepreneurship in Tanzania. The chapter reviews existing knowledge to explain why assessing socio-economic impact in this setting can be difficult. It also describes the specific problem the research seeks to address: the lack of a structured and context-appropriate framework to evaluate the outcomes of entrepreneurship initiatives in low-income environments.

Define - Knowledge Aggregation

The Define phase is presented in the Knowledge Aggregation chapter. This phase focuses on analyzing and synthesizing the insights gathered during the initial exploration in order to clearly articulate the core problem the research aims to address, as well as the factors that may have limited previous approaches. In this study, the Knowledge Aggregation chapter applies this stage by combining a two-part literature review with twelve expert interviews. Together, these steps help to consolidate relevant evidence and shape a clear definition of the problem. An overview of this process is provided in Figure 2.3.

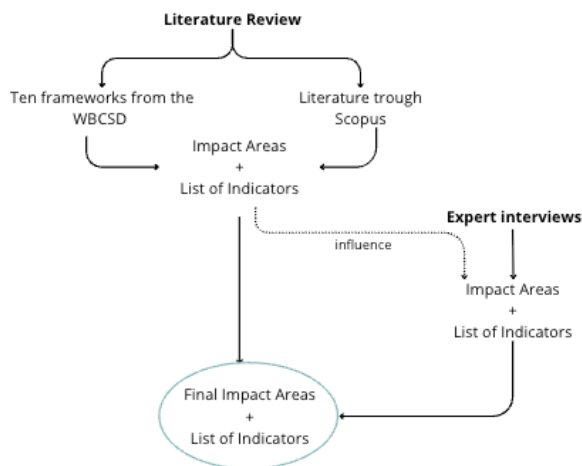


Figure 2.3: Overview of the Literature Review and Interview Process

The first part of the review examines ten frameworks developed by the World Business Council for Sustainable Development, while the second focuses on academic literature retrieved from Scopus. These steps lead to the identification of relevant impact areas and indicators.

At the same time, a critical assessment of the existing frameworks shows that none are fully suitable for the Tanzanian context. To enrich the literature findings with practical insights, twelve semi-structured interviews are conducted with experts, including professors, coordinators, and project managers involved in the selected case studies. Thematic content analysis, guided by the literature review results, highlights recurring themes and generates additional impact areas and indicators, which contribute to defining the structure of the framework.

Ideate and Prototype - Conceptualization of the Framework

The Ideate and Prototype phases mark the shift from understanding the problem to shaping a first response. In the ideate phase, ideas are generated and different ways to address the problem are explored, with user needs and context kept at the center. This stage encourages creativity and opens space for multiple possibilities.

The prototype phase translates these ideas into a first draft version of the solution. Rather than aiming for a final product, it focuses on creating a testable structure to identify what works, what does not, and what can be improved before field testing. In this research, the Ideate and Prototype phases are combined in the Conceptualization chapter. Based on the insights gathered in the Knowledge Aggregation chapter, this part of the work focuses on translating the findings into the first version of the framework. The chapter starts by outlining the conceptual foundation, which reflects both the theoretical understanding and the considerations that emerged from the literature and interviews.

From there, the final areas of impact are selected. For each area, a set of indicators is defined to make the impact observable and quantifiable. Each indicator is then linked to a specific assessment question, designed to capture the information needed in a clear and context-sensitive way. A corresponding set of response options is also formulated for each question, ensuring consistency in data collection and interpretation. All these components are progressively assembled into the first version of the framework.

This phase therefore marks the moment when the research moves from analysis to design. It sets the basis for the following steps, where the framework will be tested and further refined.

Test and Implement - Testing of the Framework

In this research, the Test and Implement phases are applied to assess both the usability and the field-based performance of the framework developed during the conceptualization phase. Two types of testing take place in both field locations: Misungwi and Zanzibar.

First, a cognitive usability test is conducted to evaluate whether the selected questions are clear and appropriate in terms of language and sensitivity. Participants are asked to indicate whether each question is understandable and whether it feels too personal or intrusive. This step follows established usability testing methods used in human-centered design (Barnum, 2010; Dam & Siang, 2020).

Second, a field-based pilot test of the framework is carried out to observe how it performs when applied to real entrepreneurship projects. This phase explores whether the framework can be effectively used in practice and whether the proposed indicators and questions are relevant and applicable in the local context.

A four-week field trip in Tanzania enables the implementation of this process, focusing on two locations where TU Delft has been involved in recent years: Misungwi, in collaboration with YEP Tanzania, and Zanzibar, in partnership with the CHAKO organization. A visual representation of this iterative process appears in Figure 2.4.

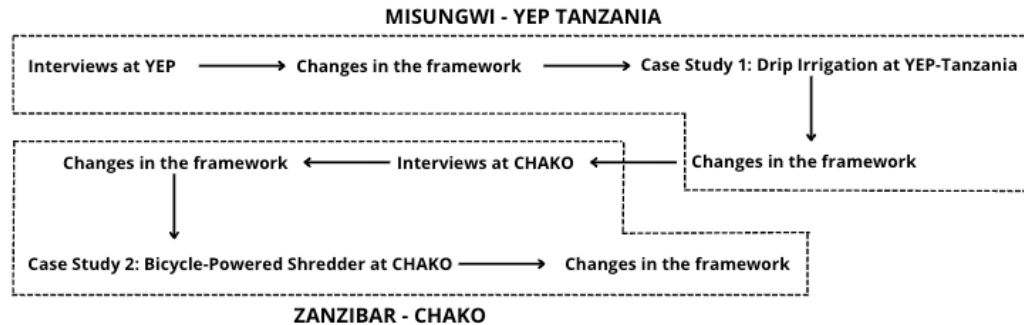


Figure 2.4: Testing and refinement process of the framework in Misungwi and Zanzibar

In Misungwi, an initial round of seven interviews is conducted to test both the clarity of selected questions and the application of the first version of the framework, using a drip irrigation project as a case study. The feedback gathered during this phase informs a first revision of the tool. A second iteration takes place in Zanzibar. In collaboration with CHAKO, seven additional interviews are conducted to evaluate the revised version of the framework. The updated tool is tested through a student-led project involving a bicycle-powered plastic shredder.

Due to logistical constraints, prototyping and testing activities are closely integrated. In both locations, the same sequence is followed: conducting interviews, analyzing feedback, adapting the framework, testing it in the field, and applying further improvements. More information about YEP Tanzania and CHAKO is provided in Appendix E.

2.2. Mode of Inquiry

This section describes the strategy adopted to answer each of the research sub-questions. Table 2.1 summarizes the methodology applied to each, following a consistent structure. It specifically addresses the following aspects: (1) the type of data needed or used, (2) the methods used for data collection, (3) the procedures for processing or cleaning the data, (4) the techniques used for analysis, and (5) the tools applied at each stage.

	SQ1	SQ2	SQ3
Data required	Indicators	Indicators	Insights from individuals affected by the projects
Data gathering	Two-phase literature review	Results from SQ1 and expert interviews	Interviews with participants and framework testing in Tanzania
Data processing	Four-step filtering process (see Table 3.1)	Manual selection and re-wording of indicators from interviews	Compilation of responses and synthesis of open-ended questions
Data analysis	Reading and synthesis	Thematic content analysis	Aggregation of results and synthesis
Tool usage	Excel and JupyterLab (Python)	Excel and JupyterLab (Python)	Excel and JupyterLab (Python)

Table 2.1: Overview of methodology applied to each sub-question

2.3. Ethical Considerations

Ethical considerations play a central role in this research, given the nature of the study, which involves direct engagement with individuals both as participants affected by entrepreneurship projects and as key informants during expert interviews. Ensuring respect, transparency, and protection of those involved is fundamental throughout the research process.

This research adheres to established academic ethical standards and has received formal approval from the Ethics Committee of TU Delft. Ethical principles guide each phase of the study to ensure that participants are treated with respect, dignity, and fairness, particularly during the fieldwork in Tanzania. A careful and culturally sensitive approach is adopted throughout.

Before each interview, participants are fully informed about the study's objectives and procedures. It is made clear that participation is voluntary, that responses remain anonymous, and that participants may decline to answer any question or withdraw at any time without consequences. Informed consent is obtained in all cases, and for interviews conducted in Tanzania, written information in Swahili is provided to ensure full comprehension.

The ethical protocol includes the following key safeguards:

- Clear explanation of the study's aim and the voluntary nature of participation.
- Informed consent obtained prior to each interview, with translated materials when needed.
- Guarantee of confidentiality and anonymity, with no personal identifiers collected.
- Careful formulation of interview questions to avoid sensitive or intrusive topics, ensuring cultural appropriateness.
- Secure data storage with access limited to the researcher and the supervisors.

In both research locations (Misungwi and Zanzibar), interviews are conducted with the assistance of local translators, who in most cases also act as project coordinators. While this dual role facilitates communication, it may influence how freely participants feel they can speak. To minimise this risk, participants are clearly reassured, both verbally and in writing, that their answers remain confidential and have no consequences for their relationship with the projects. This potential limitation is addressed further in Section 6.3. The data collected are used exclusively for academic purposes and are not shared with any external parties.

Knowledge Aggregation

This chapter corresponds to the Define phase of the Design Thinking approach. This phase focuses on analyzing and synthesizing existing knowledge to articulate the core problem and establish a solid foundation for the development of the framework. In this study, the Define phase is applied through a combination of a two-step literature review and expert interviews, which together help identify relevant areas of socio-economic impact and associated indicators. The literature review serves to gather and organize theoretical knowledge, while the expert interviews provide additional insights based on direct experience.

3.1. Literature Review

The literature review aims to identify relevant areas of socio-economic impact and practical indicators for assessing small-scale entrepreneurship projects. It combines academic and policy sources to build a solid foundation for the framework. To account for the fragmented nature of existing studies, the review is structured in two independent steps. The first step focuses on practitioner-oriented documents, the ones compiled in a guide by the World Business Council for Sustainable Development (WBCSD), from which initial impact areas and indicators are extracted. The second step examines peer-reviewed academic literature to identify additional indicators and perspectives grounded in theoretical work. In both steps, relevant documents are reviewed, and all identified indicators are recorded in a dedicated Excel database. The indicators from each step are filtered separately using a four-step process based on the SMART criteria (Specific, Measurable, Achievable, Relevant, and Time-bound) (Doran, 1981). This ensures consistency and helps retain only those indicators that are clearly aligned with the research objective and applicable in practice.

Step	Explanation	Guiding Question	SMART Criteria
Step 1	Exclude country-level or regional indicators	Is this indicator measurable at the community or local level?	Specific, Relevant
Step 2	Keep indicators measurable with simple tools	Can this indicator be measured using simple tools or information realistically accessible to small-scale entrepreneurs or communities?	Measurable, Achievable
Step 3	Select indicators tied to social or economic impacts	Is this indicator strictly related to a social or economic aspect?	Relevant
Step 4	Manually remove duplicates or unnecessary indicators	Is this indicator unique and necessary, or can it be removed?	Specific, Relevant

Table 3.1: Steps for filtering indicators according to SMART criteria

The filtering process shown in Table 3.1 is designed specifically for this research. I developed it after reviewing all the indicators collected in the Excel file, taking notes on those that appeared unclear, duplicated, or not directly related to the research objective. The goal is to retain indicators that are relevant and practical, following commonly used principles for selecting usable data (Elgin, 2021). The first three steps focus on local applicability, ease of measurement, and connection to social or economic outcomes. These are applied using Python scripts. The final step is carried out manually to identify duplicates or indicators that do not add meaningful value, such as overly generic entries (e.g. “development”) or elements that are difficult to interpret without further context.

I intentionally avoid applying the filtering too strictly. Since the framework has not yet been tested in practice, I choose to keep a broader set of indicators rather than risk excluding potentially useful ones. This allows flexibility for future refinement based on feedback from real-world applications.

3.1.1. Review of the WBCSD Guide: Measuring Socio-Economic Impact

The first step of the literature review examines ten frameworks presented in the report *Social Capital: Measuring Socio-Economic Impact – A Guide for Business* (2013), published by the World Business Council for Sustainable Development (WBCSD). The WBCSD is an internationally recognized organization that brings together leading companies committed to advancing sustainable development. This guide is selected because it brings together several commonly used frameworks in one clear and accessible document. It includes references to sources such as the IFC, GRI, and OECD, which are widely used in the field of impact assessment. Its practical orientation makes it a useful starting point for identifying impact areas and indicators that are already applied by companies and development actors. The guide is published by the World Business Council for Sustainable Development (WBCSD), a well-established organization.

While the selected frameworks were not originally developed for small-scale entrepreneurship projects in Tanzania, they offer a solid conceptual foundation for identifying commonly used impact areas and indicators. They reflect a variety of methodological approaches, including both qualitative and quantitative tools, and come from different types of institutions. This variety helps ensure that the initial list of impact areas and indicators is well-rounded and relevant.

Each framework was carefully reviewed, and all the indicators it contained were manually recorded in an Excel file. Although time-consuming, this process ensured a thorough and accurate extraction of relevant data. In total, 821 indicators were collected. To maintain methodological consistency the four-step filtering process previously discussed, was then applied.

The ten frameworks examined are the following:

1. Base of the Pyramid Impact Assessment Framework (London, 2009)
2. GEMI Metrics Navigator (GEMI, 2007)
3. Impact Measurement Framework (Initiative for Global Development, 2013)
4. IRIS (Impact Reporting and Investment Standards, 2011)
5. MDG Scan (NCDO, 2003)
6. Measuring Impact Framework (WBCSD, 2008)
7. Poverty Footprint (Oxfam, 2015)¹
8. Progress out of Poverty Index (Grameen Foundation / IPA, 2011)
9. SEAT – Socio-Economic Assessment Toolbox (Anglo American, 2003)
10. Input-Output Modeling (Leontief, 2009)

These frameworks differ in scope, methodological orientation, and intended application. Some focus primarily on economic outputs, such as employment and value creation (e.g., Input-Output Modeling), while others emphasize poverty reduction, empowerment, or multi-stakeholder collaboration (e.g., Poverty Footprint, IRIS). Their indicators are generally developed for large-scale initiatives and often require significant time and resources to implement, making them less suitable for small-scale contexts. In some cases, full implementation may take several months or even years, which makes these tools

¹For the Poverty Footprint, the most recent version publicly available at the time of writing was used.

less suitable for assessing the impact of small-scale projects with limited capacity and shorter time-frames.

Nonetheless, the variety of approaches offers a rich foundation for analysis. Even when indicators appear similar, they often reflect different assumptions or measurement strategies. Exploring this diversity helps uncover underlying dimensions of impact.

A detailed overview of each framework is provided in Section A.1. The distribution of each indicator by method can be found in Figure A.2.

The first three filtering steps applied to the 821 collected indicators were implemented using Python. After this initial filtering, a thorough manual review was performed to ensure consistency and eliminate any indicators that had been incorrectly retained. Particular attention was given to identifying and removing duplicate entries or indicators that, while worded differently, conveyed the same underlying concept. For instance, indicators such as "household income" and "average income per household" were recognized as equivalent and therefore consolidated to prevent redundancy. At this point in the process, the original source of each indicator was no longer considered relevant; when similar indicators appeared across multiple frameworks, only one was retained to maintain a streamlined and coherent dataset.

Finally, the remaining indicators were grouped into thematic categories referred to as "areas of impact." These categories were derived from recurring patterns observed during the earlier review phase and serve to structure the indicator set in a more accessible and meaningful way. This classification supports the subsequent stages of framework development by clarifying the dimensions along which socio-economic impact will be assessed. The identified areas of impact and their corresponding representative keywords are presented in Table 3.2. The names assigned to each area are not arbitrarily defined but are derived directly from the terminology used in the original frameworks reviewed.

Area of Impact	Keywords
Education	assistance, education, educational, skill development, literacy, training
Empowerment ²	agency, confidence, decision-making, empowerment, female, self-esteem
Employment	activity, conditions, employment, force, working hours, jobs, labour, placements, productivity, working, skilled workers, stability, employment status, job creation, job loss
Health	health, doctors, hospitals
Housing	building material, dwelling, household, tables, lanterns, floor, roof, assets, liabilities, energy, water
Economic and Financial Conditions	amount, compensation, earnings, finance, income, wages, salary level, salary
Social Inclusion	acceptance, perception, access, community, exclusion, inclusion, networks, participation, support, social

Table 3.2: Overview of impact areas and related keywords

After completing the four filtering steps, the initial list of indicators was significantly reduced. The refined list consists of 54 indicators.

As shown in Table 3.2, the indicators are grouped into six thematic areas of impact. The most represented category is Employment, with 22 indicators, followed by Household-Related Conditions (12), Social Inclusion (6), Empowerment (6), Education (4), Economic and Financial Conditions (3) and Health (1).

Based on an analysis of the 54 final indicators, each area of impact reflects a specific yet interconnected dimension of socio-economic development. Employment includes aspects such as job quality, access,

²The term empowerment is used here for the first time and will appear throughout the thesis to describe perceived increases in agency and confidence. Although Oxfam's Inclusive Language Guide advises caution because it can suggest power is granted externally, it is retained for consistency with established impact assessment literature, and efforts will be made to use it as carefully as possible.

retention, and productivity. Household-related indicators refer to living conditions and asset ownership. Empowerment and Social Inclusion encompass perceptions of agency, participation, and recognition within the community. Education indicators relate to access to learning opportunities and skills acquisition, while Economic and Financial Conditions capture changes in income and wealth distribution. The complete list of impact areas and their corresponding indicators is provided in Table A.1.

3.1.2. Indicators Identified through Academic Literature

The second step of the literature review aims to identify additional frameworks and methods by exploring academic sources not included in the first phase. While the initial review focused on practitioner-oriented frameworks compiled in the WBCSD guide, this step looks at how impact assessment is discussed in the academic literature, with the goal of finding references to other relevant tools. The intention is not to collect indicators directly from academic articles, but to use them as entry points for discovering and analysing additional frameworks that may offer useful perspectives for this research. The Scopus database was used to conduct this review. Scopus³ is commonly used in academic research and was selected for its broad coverage of peer-reviewed publications relevant to the topic. The following search query was used to identify relevant documents:

("socio-economic" AND impact AND entrepreneurship AND (developing OR "global south"))

Filters were applied to include only articles published from 2021 onward, in order to capture recent developments in the field. This resulted in a selection of 49 articles. These articles were reviewed to identify relevant indicators or impact areas discussed in the academic literature. Particular attention was given to references to existing frameworks or tools for socio-economic impact assessment. When such frameworks were mentioned, they were retrieved and studied in detail. This process allowed for an expansion of the source base beyond the practitioner documents examined in the first step, while maintaining a focus on structured approaches to impact evaluation. The combination of practice-based and academic sources supports the development of a framework that is both practically applicable and informed by recent academic discourse.

Among the reviewed articles, gross domestic product (GDP) and GDP per capita were the most frequently cited indicators for economic impact. Other common themes included employment, financial inclusion, access to healthcare, education, public services, and foreign direct investment (FDI). However, these indicators are generally designed for national or macroeconomic analyses and, as discussed in the introduction, are less suitable for assessing impact at the local or community level.

Despite these limitations, the articles remain valuable for two main reasons:

1. They confirm the relevance of this study by highlighting the lack of localized impact assessment tools.
2. They help outline key socio-economic dimensions that should be considered, even when localized indicators are not explicitly provided.

In addition to individual indicators, three established methodologies emerged as particularly relevant to the objectives of this research: the Human Development Index (HDI), the World Development Indicators (WDI), and the indicator sets developed by the Organisation for Economic Co-operation and Development (OECD). These tools were examined not only to extract useful indicators, but also to understand how multi-dimensional impact is conceptualized and structured across different domains. For each source, a small set of indicators was selected based on their relevance to the goals of this research and their potential applicability to localized contexts:

- **Human Development Index (HDI).** Developed by the United Nations Development Programme (UNDP), the HDI captures three key dimensions of human development: health, education, and income. Rather than focusing exclusively on economic output, it emphasizes basic capabilities and well-being. Although the index includes only a few indicators, its simplicity and widespread recognition make it useful for this study. Two indicators—expected years of schooling and mean years of schooling—were selected, as they closely align with the objectives of the framework and meet the defined selection criteria.

³Scopus is a bibliographic database developed by Elsevier that indexes peer-reviewed literature across a wide range of disciplines. It includes journal articles, conference proceedings, and book chapters, and applies a formal selection process overseen by an independent advisory board.

- **World Development Indicators (WDI).** Compiled by the World Bank, the WDI offer a large dataset of development statistics, covering over 200 countries and more than 900 variables. These include themes such as economic development, health, education, infrastructure, and public services. While most indicators are designed for national-level analysis, some are adaptable to smaller-scale assessments. A subset of indicators was selected to reflect globally recognized development priorities while remaining relevant for local contexts.
- **OECD Indicator Sets.** The OECD provides a wide range of indicators across areas such as employment, education, skills, and inclusive economic development. These indicators are often used by governments and international institutions to guide policy. For this research, the focus was on indicators that address structural and qualitative aspects, such as job quality and equity in education. Selected indicators from the OECD contribute a policy-oriented perspective that complements the practice-based and academic sources reviewed in earlier phases.

After applying the filtering process described in Table 3.1, the three sources yielded 36 indicators, grouped into six areas of impact: Economy, Education, Employment, Health, Social Protection and Labour, and Society. This classification followed the definitions used in the frameworks reviewed at this stage to maintain consistency and allow comparison across sources.

Employment was the most represented area, reflecting the importance of work and labour conditions in shaping socio-economic outcomes. Alongside indicators on employment status and participation, this category also includes aspects such as wage structures and financial incentives.

The Economy area brings together indicators describing household financial conditions, including debt, disposable income, savings, and consumption. Education covers expected and mean years of schooling as proxies for human capital. Health includes measures related to disease prevalence, life expectancy, and health spending.

Social Protection and Labour combines labour market characteristics with social protection aspects such as gender representation and the composition of the labour force. The Society area groups indicators on political participation, income distribution, and social policies affecting well-being.

The smaller number of indicators in Health and Education suggests these dimensions are less developed in existing frameworks, highlighting an opportunity for further research. A complete list of indicators and their respective areas is provided in Table A.2.

3.1.3. Results from the Literature Review

At this stage of the literature review, the goal is to define a final list of impact areas and indicators based on the findings from both phases. The resulting impact areas are shown in Figure 3.1. The six identified Impact Areas result from grouping the indicators obtained through the two-step process of the Literature Review. Although many indicators are initially categorized under different impact areas in the original sources, they are reorganized in a way that reflects the dimensions of impact they address more consistently.

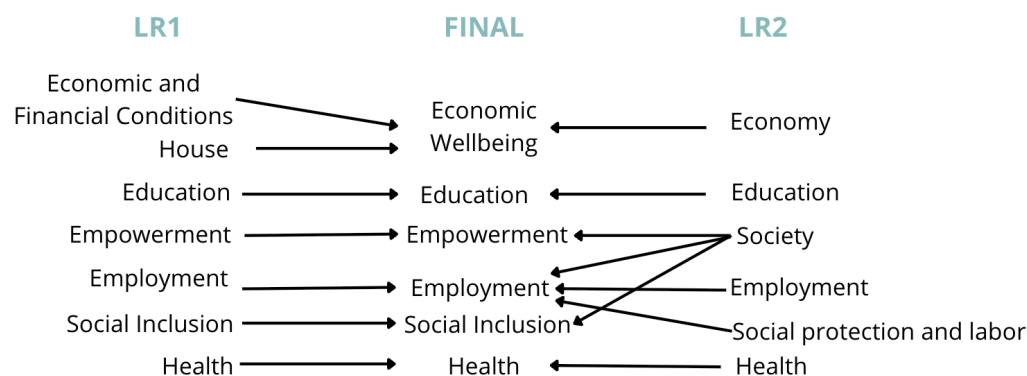


Figure 3.1: Final List Literature Review

Note: In this section, **LR1** refers to indicators derived from Section 3.1.1, while **LR2** refers to those identified in Section 3.1.2.

The final list of indicators is presented in Table 3.3. To ensure clarity and avoid redundancy, duplicate or overly similar indicators have been merged or removed. In the following part, each Impact Area is briefly introduced, and the origin of each indicator and specifically, which of the two steps of the literature review it derives from, is explained:

- **Economic Wellbeing.**

This area merges indicators from LR1 (Economic and Financial Conditions, House) and LR2 (Economy). The “Economic and Financial Conditions” group from the first review is combined with the “Economy” group from the second, as both relate to financial conditions and the ability to meet basic needs. The name *Economic Wellbeing* is based on World Bank terminology, which defines it as going beyond income alone, including overall living conditions, financial stability, and the ability to cover essentials over time (World Bank, 2020).

The “House” category (mainly from the Progress out of Poverty Index) includes household assets and living conditions, which serve as proxies for income, particularly useful in contexts like Tanzania, where income data may be unreliable. In many African countries, incomplete records and informal employment make it difficult to use direct income as a reliable indicator (Jerven, 2013). Moreover, in countries like Tanzania, having a fixed salary is uncommon, as employment is often informal, seasonal, or based on small-scale self-employment. This makes traditional income measurement approaches, common in Western contexts, less applicable and reinforces the need for alternative indicators based on living conditions.

For these reasons, income proxies and household indicators are grouped under Economic Wellbeing, and the separate “House” category is removed.

- **Education.**

This area of impact is identified in both literature reviews (LR1: Education; LR2: Education). It is considered from two angles: improved access and quality to education, and skill development. Measures like child or adult literacy are excluded, as small-scale projects typically do not aim to influence such broad outcomes.

- **Empowerment.**

This area draws from LR1 (Empowerment) and LR2 (Society). Empowerment is considered essential, as it relates to people’s ability to influence their lives and environments. Three key forms are included: empowerment in the workplace, empowerment in private life (including self-esteem and decision-making), and women’s empowerment. The selected indicators address decision-making capacity, confidence, and gender representation.

- **Employment.**

This area combines contributions from LR1 (Employment) and LR2 (Employment, Society, Social Protection and Labor). Employment is discussed not only in terms of job availability but also job quality and working conditions. Selected indicators include Employee Retention Rate (job stability), Labor Force (workforce structure), Job Creation or Loss (employment shifts), and Labor Compensation per Hour Worked (working conditions). In total, this area includes eight indicators covering job creation, stability, and labour conditions.

- **Health.**

This area of impact appears in both LR1 and LR2 (Health). However, it remains uncertain to what extent small-scale entrepreneurship can directly affect health outcomes. The two selected indicators refer to access to services and small improvements in well-being, but their relevance will be further assessed through expert interviews.

- **Social Inclusion.**

This area of impact draws from LR1 (Social Inclusion) and LR2 (Society). It is addressed in both literature reviews, appearing as “Society” in the second one. According to the World Bank (2013), social inclusion refers to “the process of improving the terms for individuals and groups to take part in society” (World Bank, 2013). The selected indicators reflect individuals’ sense of belonging, their perceived role within communities or families, and whether they feel included or excluded.

Area of Impact	Indicator
Economic Wellbeing	<p>Average wage of workers</p> <p>Economic value generated and distributed</p> <p>Changes in household assets or liabilities</p> <p>Spending on public services in the area</p> <p>Household savings</p> <p>Household debt</p> <p>Main building material of the roof of the main dwelling</p> <p>Main building material of the floor of the main dwelling</p> <p>Number of bicycles, mopeds, motorcycles, tractors, or motor vehicles owned by the household</p> <p>Ownership of radios or radio cassettes</p> <p>Ownership of lanterns</p> <p>Ownership of irons (charcoal or electric)</p> <p>Number of tables owned by household</p> <p>Proportion of households with secure tenure</p> <p>Type of energy sources used by the household (electricity, gas, wood, biomass, oil)</p> <p>Total number of household members</p> <p>Access to running water in the household</p> <p>Ownership of a refrigerator</p> <p>Ownership of a television</p> <p>Ownership of telephones</p> <p>Ownership of personal computers and access to internet</p> <p>Reliability of household energy supply</p>
Education	<p>Investment in education</p> <p>Quality of education</p> <p>Skill development</p> <p>Skill application</p>
Empowerment	<p>Proportion of women representatives in leadership roles</p> <p>Percentage of female employment</p> <p>Increased confidence or self-esteem</p> <p>Agency in decision-making</p> <p>Gender wage gap</p>
Employment	<p>Employee satisfaction</p> <p>Percentage of skilled workers</p> <p>Employment status</p> <p>Number of local companies</p> <p>Job creation or loss</p> <p>Changes in economic productivity</p> <p>Labour compensation per hour worked</p> <p>Labour force</p> <p>Employment by education level</p>
Health	<p>Improvements in health status</p> <p>Health spending</p>
Social Inclusion	<p>Community perception</p> <p>Changes in status within the family or community</p> <p>Social inclusion or exclusion</p>

Table 3.3: Final Areas of Impact and Related Indicators from the Literature Review

3.2. Expert Interviews

While literature reviews offer a solid basis for identifying relevant theories and practices, complementing them with empirical insights can lead to more accurate and context-sensitive results. As noted by (Maxwell, 2012), engaging with experts in the field helps to refine theoretical assumptions and ensure that the proposed framework reflects real-world conditions. For this reason, expert interviews were conducted after the two-step literature review.

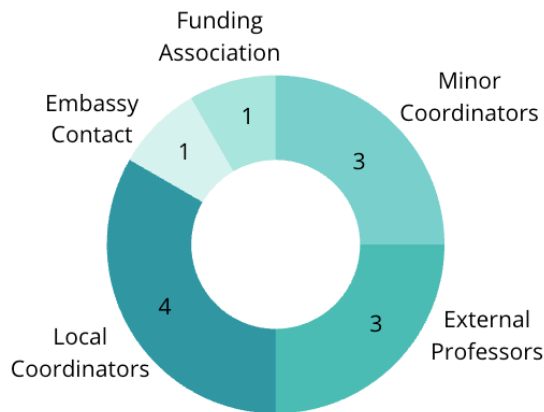


Figure 3.2: Distribution of Interviewed Experts by Role

In total, twelve experts were interviewed. These individuals are selected based on their substantial experience and familiarity with development, impact assessment, and small-scale entrepreneurship in the Global South. As illustrated in Figure 3.2, participants include professors and coordinators of the minor program, local Tanzanian partners involved in field implementation, external professionals from the development and funding sectors, and institutional stakeholders such as a representative from the Dutch Embassy in Tanzania. Their diversity in professional backgrounds and roles ensures that the framework is informed by multiple perspectives, including both academic insight and practical field experience. Additional details on each interviewee are provided in Section B.1, while the power-interest positioning of each actor is discussed in Section B.2.

All interviews were conducted in English, either face-to-face or online, depending on availability and feasibility. A semi-structured format was selected to ensure consistency across participants while allowing for flexibility and depth. This format included six predefined open-ended questions, listed in Section C.1.

In line with the “Empathize” and “Define” stages of the Design Thinking methodology, four of the questions were specifically designed to explore the perceived social and economic impacts of small-scale entrepreneurship initiatives, as well as the types of indicators that experts believe are most suitable for assessing these impacts. The goal of the interviews was to identify, through an alternative source of insight, which types of impacts such projects can generate and how these impacts might be measured in practice.

To analyze the interview data, a thematic coding approach was adopted. This qualitative method supports the identification, organization, and interpretation of recurring patterns within the responses (Boyatzis, 1998). Instead of producing full verbatim transcripts, each interview was transcribed in an extended conceptual format that captured key ideas and meanings, without recording every word. Given the conceptual nature of the interviews—which focused on analytical rather than emotional content—this transcription method ensured clarity and efficiency without sacrificing analytical depth.

The coding process was structured around two main categories: impacts and indicators. The first refers to the types of social and economic changes described by interviewees, while the second captures the metrics they consider relevant for tracking such changes. Initial codes were informed by the six areas of impact identified in the literature review: Economic Wellbeing, Employment, Empowerment, Education, Health, and Social Inclusion. However, the coding remained inductive and open to emerging themes, allowing for the inclusion of additional codes when new insights arose.

The complete list of codes and their frequency of occurrence is presented in Section D.2. Summaries of each expert interview are available in Section D.1.

3.2.1. Summary of Findings

The thematic analysis of the expert interviews provided both new insights and points that reinforced findings from the literature review. Several of the areas identified such as Education, Employment, Empowerment, Economic Wellbeing, and Social Inclusion confirmed the relevance of dimensions already outlined in the literature review. In addition, the interviews brought attention to less frequently discussed areas such as Innovation and Meritocracy. One expert raised concerns about whether these projects truly impact the people they are meant to support, suggesting that the main transformation may

actually occur in the students who carry them out. This implies that, in some cases, the socio-economic impact on local beneficiaries might be negligible or even absent.

“We often overestimate the short-term effect of these projects. Sometimes the main transformation is in the student, not the community.” (Participant 5)

This perspective is particularly relevant, as it introduces a critical angle that was not addressed in the literature review. It highlights the importance of designing an assessment framework that also considers the possibility of null—or even negative—impact on local beneficiaries, rather than assuming positive outcomes by default. The areas of impact identified through the expert interviews are Economic Wellbeing, Education, Empowerment, Employment, Innovation, Meritocracy, and Social Inclusion.

Economic Wellbeing was the most frequently cited domain. While income was mentioned as a potential measure, several experts warned against relying on self-reported financial data. Instead, they recommended observing material signs of progress, such as asset ownership or the ability to afford essential goods.

“Economic impact often becomes visible in small changes—being able to buy clothes, or pay for medicine.” (Participant 10)

Empowerment was described primarily as the capacity to make independent decisions and feel in control of one’s own actions. This form of empowerment was often expressed through increased confidence, problem-solving initiative, and greater participation in household or community choices. Some interviewees also mentioned changes specific to women’s empowerment, such as feeling more confident speaking up or being consulted in family matters.

Education was closely tied to both skill acquisition and cultural learning. Many experts highlighted that working with students from another country helped local participants become more organized, punctual, and responsible especially in managing schedules and planning. These experiences also supported language development and confidence in using English in practical situations.

Education was closely tied to both skill acquisition and cultural learning. Many experts emphasized that working with students from another country helped local participants develop greater responsibility, punctuality, and planning skills. Several also noted improvements in English language use and communication confidence.

“They start showing up on time, taking more responsibility, and learning how to plan their work better. That’s because they’re exposed to a different work culture—more precise and structured than the usual pole-pole⁴ mindset. Their English also improves a lot just by interacting with the students.” (Participant 2)

Social Inclusion emerged as a theme related to individuals’ perceived status within their families and communities. Some participants described how the projects contributed to a sense of being seen, included, and valued.

Innovation and Meritocracy were only mentioned once. The experts reflected on how exposure to new ways of working increased openness to change, while others emphasized the importance of assigning roles based on skills and contributions rather than hierarchy or tradition.

Overall, the findings highlight the importance of capturing both tangible outcomes—such as income and employment—and more intangible dimensions, including confidence and social recognition. This underscores the need for a flexible assessment framework that combines measurable indicators with space for qualitative interpretation. Table 3.4 summarizes the main areas of impact and the indicators identified during the expert interviews.

⁴*Pole-pole* is a Swahili expression meaning “slowly, slowly”; it reflects a relaxed, unhurried approach to time and work, commonly observed in East African cultures. See: Nassenstein, N. (2016). “Pole Pole” and Flexible Time: Pragmatic Effects of Slowness in Swahili. *Journal of African Cultural Studies*, 28(2), pp. 179–192.

Area of Impact	Indicator
Education	Knowledge or skills acquired Cultural exchange
Employment	Employment stability Production output Job creation
Empowerment	Independent decision-making Participation in decisions Perception of empowerment Confidence Problem-solving skills
Finances	Financial independence Income Asset ownership Basic needs coverage
Innovation	Willingness to change methods or innovate Public accessibility of services/resources
Meritocracy	% of roles assigned based on skills or contributions
Social Inclusion	Status in the family Status in the community Perception of social inclusion

Table 3.4: Areas of Impact and Indicators from Expert Interviews

3.3. Comparison of Findings

A comparative analysis between the findings from the literature review and those emerging from expert interviews allows for a more comprehensive and context-sensitive understanding of the socio-economic impact areas relevant to small-scale entrepreneurship in Tanzania. While the literature provides a structured, theory-driven foundation, the interviews contribute concrete, practice-based insights shaped by local realities and professional experience. This combination strengthens the conceptual basis of the framework and ensures that its design is both grounded in academic knowledge and responsive to the lived experiences of stakeholders.

The comparison focuses on the five impact areas that emerged consistently across both methods: Education, Employment, Empowerment, Economic Wellbeing, and Social Inclusion. These areas were selected precisely because they were identified independently in both the literature and the expert interviews, confirming their relevance and recurrence in the context of impact assessment. Figure 3.3 summarizes the specific indicators associated with each area as derived from the two sources, and highlights those indicators that appear in both. The presence of shared indicators across literature and interviews is particularly meaningful. For instance, knowledge or skills acquired is identified in both sources under Education, suggesting a common understanding of the importance of capacity-building. Similarly, in the Employment category, both sources converge on job creation and employment stability, reinforcing their central role in evaluating economic outcomes.

In the area of Empowerment, the literature tends to focus on structural metrics such as gender representation and employment ratios, while interviewees emphasized more personal dimensions, including confidence, participation in decision-making, and problem-solving. Despite this difference in emphasis, both sources recognize agency in decision-making as a core component, reflecting a shared view on the value of autonomy and self-determination.

Economic Wellbeing also shows meaningful overlap. Indicators such as income and asset ownership appear across both sources, though expert interviews often favor more pragmatic and observable di-

Impact	Literature Indicators	Interview Indicators	Common Indicators
Education	Quality of education, Investment in education, Skill development	Knowledge or skills acquired, Cultural exchange	Knowledge or skills acquired
Employment	Employee satisfaction, Percentage of skilled workers, Employment status, Number of local companies, Job creation or loss, Changes in economic productivity, Labour compensation per hour worked, Labour force, Employment by education level	Employment stability, Production output, Job creation	Level of productivity, Job creation, Employment stability
Empowerment	Proportion of women representatives in leadership roles, Percentage of female employment, Increased confidence or self-esteem, Agency in decision-making, Gender wage gap	Independent decision-making, Participation in decisions (women), Perception of empowerment, Confidence, Problem-solving skills	Agency in decision-making
Economic Well Being	Average wage of workers, Economic value generated and distributed, Changes in household assets or liabilities, Spending on public services in the area,...	Financial independence, Income, Asset ownership, Basic needs coverage	Income, Assets ownership
Social inclusion	Changes in status with the family or community, Social inclusion or exclusion	Status in the family, Status in the community, Perception of social inclusion	Status in the community, Status in the family, Perception of social inclusion

Figure 3.3: Differences between the Literature Review and the Interviews

mensions, such as financial independence or the ability to meet basic needs. These insights help to translate abstract concepts into measurable and locally appropriate criteria.

Social Inclusion is another area where the indicators are highly aligned. Both literature and interviews refer to status in the family, status in the community, and the perception of social inclusion. This suggests a shared recognition of how relational and societal dynamics shape the broader outcomes of entrepreneurship initiatives.

Overall, this comparison highlights not only the theoretical robustness of the selected impact areas, but also the importance of integrating empirical knowledge from the field. The process of aligning these findings required iterative coding, triangulation of sources, and careful thematic aggregation. The resulting synthesis provides a solid foundation for the subsequent design of the framework, ensuring that it reflects both academic validity and contextual relevance.

3.4. Summary

This chapter presented the process and results of identifying and selecting indicators to assess socio-economic impact. Through a systematic review of existing frameworks, a total of 32 indicators were retained and grouped into five areas of impact: Economy, Employment, Education, Health, and Social Protection. In parallel, the analysis of expert interviews yielded 20 additional indicators distributed across seven categories, including Economic Wellbeing, Empowerment, Social Inclusion, and Meritocracy. The indicators varied in nature, combining quantitative measures such as wage levels, employment conditions, and household financial assets with qualitative aspects related to self-esteem, agency, and perceptions of social status. Particular attention was devoted to ensuring conceptual clarity, consistency, and contextual relevance in the categorisation process. The resulting set of indicators provides a comprehensive and structured foundation for the subsequent design of the assessment framework, reflecting an extensive effort to synthesise diverse sources into a coherent and practicable tool.

Conceptualization of the Framework

This chapter represents the conceptualization phase of the research, combining the Ideate and Prototype stages of the Design Thinking process. Building on the insights developed in the Knowledge Aggregation chapter, it sets out how these findings were translated into the design of the first version of the framework. The chapter begins by outlining the overall design approach, then defines the impact areas and corresponding indicators. It proceeds to describe the structure of the questions, the response formats, and the scoring system. The chapter concludes with the presentation of the initial prototype of the framework, which serves as the basis for future refinement.

4.1. Overall Design Approach

The overall decisions that shape the design of the framework draw on two main sources: the principles outlined in the introduction and the insights obtained during the interviews with the experts. For example, from the beginning it was assumed that a framework intended for use in small-scale projects cannot require substantial time, specialised training, or high implementation costs.

From the outset, the framework aligns with the SMART criteria—Specific, Measurable, Achievable, Relevant, and Time-bound—to ensure clarity, consistency, and meaningful measurement of impact in small-scale entrepreneurship initiatives. This orientation aims to produce results that are actionable while remaining realistic in a context characterised by limited financial and operational resources.

The design also integrates the three core dimensions of Design Thinking: desirability (ensuring that the framework reflects what local stakeholders need and value), feasibility (ensuring that it can be implemented with the skills, time, and resources available), and viability (ensuring that it can be sustained over time, including in settings with financial or institutional constraints) (Dam & Siang, 2020). These dimensions are closely interrelated. For example, a framework that is perceived as desirable but requires excessive time or technical expertise (low feasibility) is unlikely to be adopted or maintained in the long term. Balancing these aspects guides decisions about the content, structure, and level of complexity of the prototype.

To complement these theoretical foundations, the expert interviews provided specific input on the desired characteristics of the framework. In particular, Question 6 asked: *“What, in your opinion, are the key characteristics of a good socio-economic impact assessment framework for small-scale entrepreneurship projects?”*. The responses confirmed and refined the initial design choices as the main recommendations emerging from the interviews were as follows:

- The framework should prioritise **ease of use**, especially given the time and resource constraints typical of small-scale projects.
- It should adhere to the **SMART criteria** to ensure clarity and focus.
- It should follow a **user-centred design**, adaptable to different project types and contexts.
- It should enable **before-and-after comparisons** to track change over time.
- It should combine both **qualitative and quantitative indicators** to capture different dimensions of impact.

- A smaller number of participants also noted the relevance of **validation**, though this was seen as more applicable to later stages of development. validation in the sense of testing the framework in real life context before

Several participants highlighted the need to keep the framework simple and pragmatic. As one expert noted, *“If it takes too long or requires special training, no one will bother using it.”*

In summary, the convergence of theoretical principles and empirical recommendations points to the need for a framework that is:

- Clear and focused in its indicators and questions;
- Simple and efficient to apply in practice;
- Flexible enough to adjust to different project types;
- Capable of combining quantitative data with qualitative insights;
- Structured to support comparisons over time.

These principles guide the design of the prototype presented in this chapter.

4.2. Definition of Impact Areas

The identification of impact areas in this framework resulted from an iterative process that first drew on the findings of the literature review and then integrated evidence gathered through expert interviews. This combination ensured that the framework reflected both established knowledge and insights from professionals working with small-scale entrepreneurship projects.

An impact area represents a broad domain in which a project may produce change, whether positive or negative. Unlike indicators, which are specific and measurable variables, impact areas define the overall scope of expected impacts without prescribing in detail how these should be assessed (Gertler, Martinez, Premand, Rawlings, & Vermeersch, 2016; Investment Impact Index, 2020).

To ensure coherence and focus, the final framework retained only the impact areas that were consistently identified in both the literature and the interviews. Table 4.1 illustrates this by providing an overview of the impact areas, each accompanied by a brief description informed by the indicators selected for them.

Impact Area	Description
Skill Development	Improvements in participants' knowledge, skills, and capacity to apply learning in practical contexts, including exposure to new work methods and cultural perspectives.
Employment	Creation of new job opportunities, increased work stability, or enhanced productivity resulting from project activities.
Empowerment	Strengthening of participants' confidence, agency, and decision-making power in personal and economic domains.
Economic Wellbeing	Changes in income levels, ability to cover basic needs, and financial independence.
Social Inclusion	Developments in social status, sense of belonging, and participation in community life.

Table 4.1: Final impact areas selected for the framework

Some potential impact areas were intentionally excluded to preserve focus and ensure feasibility. For example, *Health*, although often mentioned in the literature, was not retained because direct health improvements are unlikely to arise from small-scale entrepreneurship projects within short implementation periods. Any health-related benefits are more plausibly indirect, such as improved living conditions through higher income. This view is further supported by the fact that none of the interview participants identified health as a relevant area to measure.

Similarly, *Meritocracy* and *Innovation* emerged only sporadically during interviews and were absent

from the literature. The indicators proposed for these areas were either too general or too difficult to operationalise reliably. For this reason, they were excluded from the final framework. Nevertheless, both areas remain conceptually interesting and may be reconsidered in future adaptations if further evidence supports their relevance.

Overall, this combination of consistent evidence across sources and clear conceptual definitions ensures that the selected impact areas are meaningful and suitable for assessment in the context of small-scale entrepreneurship initiatives.

4.3. Selection of Indicators

In this section, each impact area is described along with the indicators chosen to measure it. The selection process was guided by clear and transparent criteria to keep the framework coherent.

Indicators were selected first when they appeared both in the literature and in the expert interviews, as this combination shows that they are well-supported and likely to be useful in practice. Additional indicators were added when they were often mentioned by interviewees or judged particularly important to capture socio-economic changes in small-scale entrepreneurship projects.

4.3.1. Skill Development

Table 4.2 presents the indicators selected to assess Skill Development, showing their sources and highlighting the combination of literature and expert input on which they are based.

Indicator	Source
Knowledge acquisition	Literature review + Expert interviews
Knowledge application	Literature review
Intercultural learning	Expert interviews

Table 4.2: Skill Development: Indicators and Sources

The selection of indicators for Skill Development is based on their relevance, frequency in the data sources, and their ability to capture different dimensions of learning. Together, they provide a structured way to assess not only whether knowledge is acquired but also whether it is applied and enriched by cross-cultural experiences.

- **Knowledge acquisition.** This indicator emerged consistently in both the literature and the expert interviews. It captures the general learning that participants report gaining during the project, including practical techniques, organisational practices, or broader professional skills. However, several authors highlight that knowledge acquisition alone does not necessarily lead to improved outcomes. As Gertler et al. note, it is important to examine whether participants can put what they have learned into practice (Gertler, Martinez, Premand, Rawlings, & Vermeersch, 2016).
- **Knowledge application.** Identified mainly in the literature review, this indicator examines whether participants incorporate newly acquired skills into their daily activities, whether in personal life or work. It was included because it offers valuable insight into the durability and depth of learning outcomes. Without evidence that knowledge is applied in practice, improvements may remain theoretical and have limited real-world impact.
- **Intercultural learning.** This indicator was identified exclusively through the expert interviews. Several participants noted that collaborating with students from other countries exposes individuals to different ways of organising work, managing time, and addressing challenges. This process was frequently described as reciprocal rather than one-directional, highlighting the potential for mutual learning and adaptation to local practices (Deardorff, 2006). Including this indicator ensures that the framework recognises not only more tangible outcomes but also the valuable impacts of cross-cultural exchange.

Other indicators discussed in the literature, such as training quality, the amount of educational investment, and the number of training beneficiaries, were deliberately excluded. These were considered less relevant in informal or resource-constrained settings, where formal metrics often do not adequately capture the learning processes that take place in practice. Given this focus on practical and experiential learning, the impact area was renamed from *Education* to *Skill Development*.

4.3.2. Employment

Table 4.3 presents the indicators selected to assess Employment, showing their sources and highlighting the combination of literature and expert input on which they are based.

Indicator	Source
Employment stability	Literature review + Expert interviews
Employment generation	Literature review + Expert interviews
Level of productivity	Literature review + Expert interviews

Table 4.3: Employment: Indicators and Sources

All three selected indicators were identified both in the literature review and in the expert interviews, reinforcing their relevance and confirming that they reflect dimensions of employment that are widely recognised as significant in the assessment of small-scale entrepreneurship initiatives.

- **Employment stability.** This indicator is defined as the combination of two aspects: the continuity of employment over time and the consistency with which individuals engage in income-generating activities. The definition builds on the ILO Resolution concerning statistics on work relationships (International Labour Organization, 2018), but it has been adapted into perception-based questions to ensure that it is understandable and relevant in the local context. This adaptation was necessary because many participants work in informal or seasonal settings where formal records of employment duration do not exist.
- **Employment generation.** This indicator refers to the extent to which project participants feel able to create new jobs or income opportunities, either by expanding their own activities or by hiring or involving others. Rather than measuring only the actual number of positions created, it also captures perceived capacity and readiness to offer work to others. This aspect is important in entrepreneurship-focused initiatives because participants' confidence and intention to generate employment can be a precursor to broader economic impacts over time (Cho & Honorati, 2016). Including this indicator allows the framework to account for both immediate changes and shifts in attitudes that may lead to further impacts in the future.
- **Level of productivity.** This dimension captures any reported improvement in the quantity or quality of goods and services produced as a result of project participation. The indicator is designed to be flexible and applicable across diverse types of activities and sectors, reflecting the variety of livelihoods typically involved in small-scale entrepreneurship. Assessing productivity is important because it can be linked both to increased income and to longer-term sustainability of the business activities supported by the project.

Other indicators frequently discussed in the literature, such as labour compensation per hour worked, employment by education level, or formal job classification, were deliberately excluded. These measures tend to be more relevant in formal employment contexts and often rely on detailed records or national labour statistics that are not accessible or meaningful in small-scale, informal projects (Cho & Honorati, 2016). Similarly, employee satisfaction was not retained, as most participants are self-employed given the focus of this study. This makes the indicator less applicable and more difficult to interpret consistently, since there is no employer-employee relationship in many of the contexts examined.

4.3.3. Empowerment

Empowerment is a multidimensional concept that refers to the process through which individuals gain the ability and confidence to make decisions, act on their own behalf, and influence the circumstances that affect their lives (Kabeer, 1999; Narayan, 2005). In development studies, empowerment is often described as comprising resources, agency, and achievements (Kabeer, 1999). However, scholars have also noted that Western interpretations of empowerment can emphasise individual autonomy and control in ways that do not always align with local cultural norms or collective forms of decision-making (Cornwall & Edwards, 2007). For this reason, the indicators selected here seek to balance internationally recognised measures with sensitivity to the context in which small-scale entrepreneurship projects operate.

The indicators used to assess Empowerment are summarised in Table 4.4:

Indicator	Source
Level of confidence	Literature review + Expert interviews
Agency in Personal Decision-Making	Literature review + Expert interviews
Agency in Work-Related Decision-Making	Literature review + Expert interviews
Asset ownership	World Bank Measurement Guide (Bank, 2023)
Input into decisions	Expert interviews + World Bank Measurement Guide

Table 4.4: Empowerment: Indicators and Sources

Each indicator was selected to capture a different facet of empowerment that is relevant in informal entrepreneurship contexts:

- **Level of confidence.** This indicator reflects whether participants feel more confident in themselves as a result of project participation. It was frequently cited in both the literature and the interviews as a core aspect of empowerment.
- **Agency in Personal Decision-Making.** Agency refers to the ability to define goals and act upon them. This indicator focuses on whether individuals perceive themselves as having greater freedom and control in personal decisions, such as managing their household or using their income. Including this measure recognises that increased resources alone do not necessarily lead to empowerment unless accompanied by expanded agency (Kabeer, 1999).
- **Agency in Work-Related Decision-Making.** To capture agency in economic activities specifically, this indicator assesses whether participants feel they can make decisions about their work or business without undue external influence. Dividing agency into personal and work-related spheres allows for a more nuanced understanding of where empowerment may be taking place.
- **Asset ownership.** This dimension was drawn from the World Bank Measurement Guide on Women's Empowerment in Agriculture (Bank, 2023). It records whether women own and can control key household assets, such as land, livestock, or equipment. Because asset ownership is often linked to bargaining power and long-term security, it is used here as a proxy for economic autonomy. This indicator is administered exclusively to female respondents to avoid conflating gendered experiences.
- **Input into decisions.** This indicator assesses the extent to which participants, especially women, feel involved in household or community decisions. It was included based on expert interviews, which highlighted that participation in decision-making is a visible sign of empowerment and can be easier for respondents to report than abstract perceptions of power.

The last two indicators, Asset ownership and Input into decisions, are included only for female respondents. This decision is based on the understanding that these dimensions of empowerment are deeply shaped by gender norms and structural factors that do not apply in the same way to men. In many settings, including the Tanzanian context of this research, women often face specific constraints on owning property, accessing economic resources, and participating in decisions about household management. Measuring these aspects among men would therefore not provide comparable information and could risk masking the particular challenges and forms of progress that are relevant to women. As noted by Kabeer (1999) and Malhotra et al. (2002), effective assessment of empowerment requires indicators that are sensitive to the social and institutional factors that systematically limit women's agency in ways that are distinct from men's experiences. Other indicators discussed in the literature, such as gender wage gaps or representation in leadership roles, were excluded because they are difficult to measure in informal and small-scale settings and often require data that are not available at the project level (Malhotra et al., 2002).

4.3.4. Economic Wellbeing

The indicators, questions, and answer scales for Economic Wellbeing are shown in Table 4.5:

All three indicators were selected because they appear consistently across data sources or were strongly emphasised by interview participants as central to understanding the economic impact of

Indicator	Source
Income	Literature review + Expert interviews
Ability to provide for basic needs	Expert interviews
Financial independence	Expert interviews

Table 4.5: Economic Wellbeing: Indicators and Sources

small-scale entrepreneurship projects. Together, they cover both material conditions and perceived autonomy in financial matters. The rationale for each is detailed below:

- **Income.** This indicator captures changes in the household's financial situation over time. Because direct income reporting is often unreliable in contexts with high informality, the framework uses several proxy measures inspired by the Progress out of Poverty Index (PPI) and the Multi-dimensional Poverty Index (MPI), such as the materials used in housing construction and ownership of certain household items (Alkire et al., 2015; Innovations for Poverty Action, 2021). These proxies help reduce reporting bias and provide a more objective basis for estimating changes in economic wellbeing. For example, improvements in roof or floor material, or acquisition of a refrigerator, can indicate increased disposable income and better living standards. This approach also accounts for the seasonal and irregular nature of earnings in many small-scale economic activities. The proxies are shown in Table G.1.
- **Ability to provide for basic needs.** This dimension assesses whether individuals feel able to meet essential consumption requirements such as food, clothing, housing, and access to health-care or education. It was highlighted by several interviewees as a key concern in the Tanzanian context, where a substantial proportion of the population lives below the poverty line (World Bank, 2019, 2024). Including this indicator ensures that the framework does not focus solely on income as a numeric measure but also captures perceived capacity to cover everyday needs. The use of perception-based questions allows respondents to express changes in their sense of economic security, which may not be fully reflected in objective proxies alone.
- **Financial independence.** This indicator refers to whether participants feel less reliant on family members or external support to cover their expenses. In the interviews, respondents often described financial independence as a critical element of economic empowerment, particularly for women and young people seeking to reduce dependency on spouses or relatives. This dimension helps the framework account for the relational aspects of economic wellbeing, recognising that greater control over resources can have broader effects on household decision-making and self-confidence (Kabeer, 1999; Narayan, 2005). It also aligns with policy goals in Tanzania that emphasise self-reliance as a pathway out of poverty.

4.3.5. Social Inclusion

The indicators for Social Inclusion are presented in Table 4.6:

Indicator	Source
Status in the community	Literature review + Expert interviews
Status in the family	Literature review + Expert interviews
Perception of social inclusion	Literature review + Expert interviews

Table 4.6: Social Inclusion: Indicators and Sources

- **Status in the community.** This indicator captures how respondents perceive their position and reputation within their broader community. It is relevant because social status often influences access to networks, resources, and informal support systems that are essential in low-income contexts. The literature highlights that shifts in community status can emerge when individuals engage in new economic activities, gain visibility, or adopt roles previously unavailable to them (OECD, 2019). In the interviews, experts also noted that improved standing in the community can reinforce confidence and motivate further entrepreneurial initiatives.

- **Status in the family.** This dimension reflects how individuals perceive their role, respect, and influence within their own household. Changes in intra-family status may occur when project participants contribute more consistently to household income or assume greater responsibility for economic decisions. Several interviewees emphasised that, particularly for women, increased income generation is closely linked to stronger recognition from other family members and a higher degree of autonomy in domestic matters (Narayan, 2005).
- **Perception of social inclusion.** This indicator refers to the subjective sense of belonging and participation in the social life of the community. It addresses whether respondents feel accepted, valued, and able to engage in communal activities. Social inclusion is often described as an important non-material dimension of well-being, which can improve resilience and reduce vulnerability (Bank, 2013). The literature and interviews converged in recognising that projects aiming to foster entrepreneurship may indirectly strengthen social inclusion by reducing stigma associated with poverty or unemployment.

These three indicators were selected because they were consistently cited across both the literature and the expert interviews and because they address distinct but complementary aspects of social dynamics. Together, they enable the framework to capture a nuanced understanding of social change beyond economic measures.

4.4. Questionnaire Structure and Response Options

Once the indicators were defined, it was essential to design questions capable of capturing them in a way that is both accurate and accessible. The formulation of each question and its corresponding response options was guided by two core principles: clarity and consistency. Questions needed to be easily understood regardless of respondents' education level and experience, while also producing answers that could be systematically converted into numerical values for scoring purposes.

This section describes the three main types of questions included in the framework. Each format was selected because it is appropriate for capturing a specific category of information—whether subjective perceptions, factual characteristics, or precise quantities. The consistent use of standardised response options ensures that data can be reliably aggregated and compared across respondents. Importantly, every answer is associated with a predefined value on a numeric scale, which forms the basis for calculating the final impact score described in the following sections.

The three main answer formats and the rationale for their use are as follows:

- **Five-option ordinal scales and categorical lists**

Depending on the question, five-option scales were used either as ordinal Likert-type responses (reflecting degrees of perception) or as categorical lists describing factual characteristics. For example, some items ask about perceived improvement on an ordered scale (e.g., “much more stable”), while others require selecting one category from a defined set (e.g., main roof material). Five-option structures were chosen because they strike a balance between detail and simplicity. Compared to shorter scales, they provide greater variability and reduce central tendency bias, while remaining manageable for respondents. When used as ordinal scales, they facilitate comparison across indicators and systematic scoring. When used as categorical lists, they offer clear classifications relevant to the local context.

- *Example of ordinal question:* “Compared to before the project, how stable do you feel your employment situation is?” *Response options:* 1 = Much less stable 2 = Slightly less stable 3 = About the same 4 = Slightly more stable 5 = Much more stable
- *Example of categorical question:* “What was the main material of the roof after the project?” *Response options:* 1 = Mud/grass 2 = Leaves/bamboo 3 = Timber 4 = Cement 5 = Concrete or tiles

- **Dichotomous questions with a non-response option**

These questions are designed to collect objective information about living conditions, resources, or assets. To address situations where respondents either do not know or prefer not to answer,

a third option (“Prefer not to answer”) is provided. This avoids forced responses and increases the reliability of the data by acknowledging uncertainty or unwillingness to disclose information.

- *Example question:* “Did your household have running water before the project?” *Response options:* 1 = No 2 = Prefer not to answer 3 = Yes

This coding makes non-responses explicit and ensures they are treated consistently in analysis.

- **Numeric open-ended questions**

This format is reserved for questions where reporting a precise value is essential, such as monthly income. Respondents are invited to enter the actual figure in Tanzanian shillings.

- *Example question:* “What is your average monthly salary after the project?” *Response:* Insert a value

The combination of these question types enables the framework to capture both subjective and objective dimensions of socio-economic impact in a consistent way. Predominantly closed-ended formats ensure that responses can be easily coded and analysed, supporting the goal of making the tool both rigorous and easy to implement. Where necessary, instructions are provided to clarify definitions and response options, reducing the risk of misinterpretation.

4.5. Scoring System

This section describes the procedure for transforming individual questionnaire responses into standardised numerical scores. The aim of this scoring system is to ensure that different types of information such as subjective perceptions, factual data, and before and after comparisons can be analysed in a consistent and comparable way across all indicators and areas of impact. The outcome is a single standardised value for each impact area that summarises the extent and direction of change reported by participants in a format that is clear, interpretable, and suitable for communication to diverse audiences.

Importantly, this section describes only the calculation of scores for each impact area. The aggregation of these results into a single overall project impact score is described in Section 5.7. Each of the following steps is applied systematically across all responses and areas.

4.5.1. Step 1. Standardised Scoring of Responses

This step describes how every response option included in the framework is assigned a numeric score on a 0–1 scale. The scoring conventions are predefined and presented directly in the printed versions of the questionnaire, so that enumerators and respondents can easily understand how each answer will be valued. This approach avoids inconsistencies and ensures that all data are collected in a format ready for aggregation and analysis.

The framework includes three principal question formats, introduced earlier. Each format has distinct characteristics that determine how responses are assigned scores:

Five-option ordinal scales and categorical lists

Response	Score
1	0.00
2	0.25
3	0.50
4	0.75
5	1.00

These questions capture perceptions of change or subjective judgements. The scoring is calculated by transforming the original 1–5 responses using the formula:

$$\text{Normalised score} = \frac{\text{Response} - 1}{4}$$

This transformation ensures that all the scale answers are consistently mapped to the standard 0–1 range.

Dichotomous questions with a non-response option

Response	Score
No	0.00
Prefer not to answer	0.50
Yes	1.00

These questions collect factual information about resources, ownership, or household conditions. In each case, the question is formulated so that Yes corresponds to the most positive or favourable condition. This ensures coherence across indicators and simplifies interpretation. The scoring is assigned directly without further transformation.

Numeric open-ended questions

This format applies exclusively to the monthly income question. Respondents report the amount in Tanzanian shillings, and the value is recorded as entered without transformation. This question is always used to compare income before and after the project. The comparison determines the categorical score:

- If income after the project is higher, the score is 1.
- If income remains the same, the score is 0.5.
- If income is lower, the score is 0.

This ensures consistency with the framework's standardised scoring system.

4.5.2. Step 2. Calculating Delta Scores for Before and After Questions

Some questions in the framework are designed to capture change by explicitly recording the respondent's condition before and after the project intervention. These items are clearly marked in the questionnaire so it is evident when both time points must be collected.

Because all responses are already normalised to a 0–1 scale at the time of data entry, the calculation of change is straightforward. For each indicator, the delta is obtained by subtracting the pre-project score from the post-project score:

$$\Delta = \text{Post-normalised score} - \text{Pre-normalised score}$$

This direct computation ensures that improvements and deteriorations are consistently expressed in relative terms. A positive delta indicates improvement, while a negative delta reflects deterioration.

Example calculation:

In this example, the question relates to the material of the respondent's roof before and after the project intervention.

- Pre-project response: Timber roof (original score = 3)
- Post-project response: Cement roof (original score = 4)
- Pre-project normalised score: $\frac{3-1}{4} = 0.50$
- Post-project normalised score: $\frac{4-1}{4} = 0.75$
- Delta: $0.75 - 0.50 = +0.25$

This resulting value of 0.25 represents the change in conditions and is used in the subsequent calculation of the overall impact index.

4.5.3. Step 3. Calculating the Area Impact Index

Once all responses for a given area have been scored and normalised (and deltas computed where applicable), the framework aggregates these values to produce an overall index that summarises the level of impact in that domain.

This index is calculated as the arithmetic mean of the normalised scores of all indicators associated with the area. The use of a simple average ensures that each indicator contributes equally to the overall assessment and that results remain interpretable and transparent for non-technical audiences (Bamberger et al., 2012; OECD et al., 2008).

Example calculation: Skill Development

- Knowledge acquisition = 0.75
- Knowledge application = 0.00
- Intercultural learning = 0.50

$$\text{Skill Development Index} = \frac{0.75 + 0.00 + 0.50}{3} = 0.42$$

This result means that, on average, the perceived impact of the project on Skill Development falls between no significant change and a mild positive impact.

4.5.4. Step 4. Interpreting the Index

After calculating the index (a value between 0 and 1), it is interpreted using the classification below, which defines thresholds for translating numeric results into qualitative categories:

Range	Interpretation
0.00–0.19	Strong negative impact: substantial deterioration in the conditions assessed, suggesting the project may have caused harm or failed to mitigate existing problems.
0.20–0.39	Mild negative impact: partial worsening of conditions, though less pronounced than the previous category. May indicate unintended negative effects or insufficient support.
0.40–0.59	No significant impact: overall conditions remain approximately the same, with neither meaningful improvement nor deterioration perceived.
0.60–0.79	Moderate positive impact: clear and consistent improvements in the relevant dimensions.
0.80–1.00	Strong positive impact: substantial and broad improvements across the area, indicating that the project achieved or exceeded its intended goals.

Table 4.7: Interpretation scale for impact area

This classification helps avoid seeing the results only as success or failure. Instead, it allows stakeholders to understand different levels of change in a more detailed way.

It is also important to highlight that this step creates a separate score for each impact area (Skill Development, Employment, Empowerment, Economic Wellbeing, and Social Inclusion). How these scores are combined into one overall project impact score is explained in Section 5.7.

4.6. Versions of the framework

The framework has been developed in different versions to make it adaptable to various contexts, languages, and respondent profiles. Two language versions are available: an English version and a Swahili version.¹ The content is the same in both cases, with only the language of the questions and response options changing. This ensures that the results remain fully comparable, regardless of which version is used.

In addition to the language, there are two main approaches for when to administer the framework. The Post-Only Mode is used when it is not possible to collect baseline data before the project begins. In this version, all questions are asked after the project has been completed, and respondents are asked to think back and compare their current situation with how things were before the project. This approach relies on people's recollection and perceptions of change. The Pre-and-Post Mode, on the other hand, involves administering the same questions twice: once before the project starts (baseline) and again after it ends. This method makes it possible to directly measure changes over time using

¹Swahili is the official national language of Tanzania and is widely spoken across the country (of Tanzania, 2016).

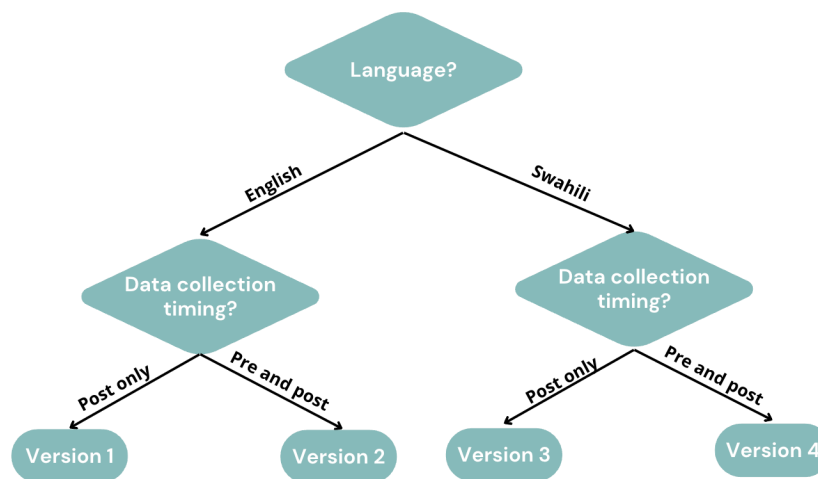


Figure 4.1: Decision tree to determine the version

participants' actual answers at two different points, rather than only their memories and opinions after the fact. Whenever resources and timing allow, the pre-and-post version is preferred, as it provides more robust evidence of change.

Finally, the framework also includes some questions that are relevant only for respondents who identify as female. These questions are clearly marked in the questionnaire. If a participant does not identify with the female gender, they are simply instructed to skip those questions. This design ensures that all responses remain respectful and relevant to each individual's situation.

Figure ?? shows how the selection of the framework version depends on language and timing of data collection.

The framework is available in four versions that combine language and timing of administration:

- **Version 1 – English, Post-Only:** Conducted in English and applied when baseline data collection is not possible. All questions are asked once, after the project ends.
- **Version 2 – English, Pre-and-Post:** Conducted in English, with questions administered twice: before the project starts and after it concludes.
- **Version 3 – Swahili, Post-Only:** Conducted in Swahili, with questions asked once after the project, relying on respondents' recall.
- **Version 4 – Swahili, Pre-and-Post:** Conducted in Swahili and applied in cases where it is feasible to collect both baseline and endline data.

This structure allows the framework to adapt flexibly to different fieldwork conditions while keeping the content consistent across all configurations.

4.7. Prototype of the Framework

In the following pages, an excerpt of Version 1 of the framework is presented. For reasons of space and clarity for the main readers of this research, only part of the tool is included. This is a prototype and does not yet contain the section for calculating the overall impact score. For space considerations, the questions and answers of Version 2 are presented separately in Section H.2.

GUIDELINES

The framework consists of 30 questions covering different aspects of participants' experience. It is essential to answer each question honestly and without fear of judgement, as there are no right or wrong responses. If an interviewer is present, they should create a friendly and respectful environment to help respondents feel at ease. Measurements soon after project completion are likely to capture early changes, while later assessments may reflect more sustained effects but can also be affected by recall bias or attribution errors. Because there is no single definition of when a change becomes an "impact" rather than an "outcome," it is essential to clearly document when data were collected and interpret results accordingly. Where possible, combining an initial assessment with a follow-up after 6–12 months is recommended to gain a more complete picture.

How to complete the framework

There are five impact areas to be assessed, listed here in alphabetical order: Economic Wellbeing, Employment, Empowerment, Skill Development, and Social Inclusion.

For each impact area, you will find a set of questions and corresponding answer options.

The process is as follows:

1. Read the question carefully to the respondent.

2. Record the "Raw score" based on the selected answer option.

Example:

Question: "Compared to before the project, to what extent do you feel economically independent?"

Answer options:

1 = Much less independent

2 = Slightly less independent

3 = About the same

4 = Slightly more independent

5 = Much more independent

If the respondent feels "Much less independent", you will record an Answer Score of 1.

3. Complete the "Score" column.

The way you assign this value depends on the type of question:

- If the question has 5 answer options, refer to *Table 1* showing how to convert the raw score to a normalised value.
- If the question has 3 answer options ("Yes", "No" and "Prefer not to answer"), refer to *Table 2*.
- For the first question in the Economic Wellbeing section (monthly income), you must write down the exact amount in Tanzanian shillings. This value is recorded exactly as provided, without any transformation. This question is always used to compare income before and after the project. Refer to *Table 3*.

Response	Score
1	0
2	0.25
3	0.5
4	0.75
5	1

Table 1

Question	Score
No	1
Prefer not to answer	0.5
Yes	0

Table 2

Response	Score
If income after the project is higher	1
If income remains the same	0.5
If income is lower	0

Table 3

0.00 - 0.19	Strong negative impact
0.20 - 0.39	Mild negative impact
0.40 - 0.59	No significant impact
0.60 - 0.79	Moderate positive impact
0.80 - 1.00	Strong positive impact

Table 4

4. Identifying comparison questions

Questions with a light-blue background are scored directly. If there is no background, compare the response to the related "before" question and subtract the earlier score from the later one.

5. Calculating the impact area score

Average all scores shown in the light-blue boxes to get the final score for each impact area.

6. Interpreting impact area results

Use *Table 4* to interpret each area's final score.

IMPACT ASSESSMENT

Name: Date:

ECONOMIC WELLBEING

Question	Answer Options	Answer Code	Score	Delta
What was your average monthly salary before the project?	Enter TZ schellings			
What is your average monthly salary after the project?	Enter TZ schellings			
Did your household have running water before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Does your household have running water after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Did your household have a refrigerator before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Does your household have a refrigerator after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Did you have a smartphone before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Do you have a smartphone after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
What was the main material of the roof before the project?	1 = Mud/grass; 2 = Leaves/bamboo; 3 = Timber; 4 = Cement; 5 = Concrete or Tiles			
What is the main material of the roof after the project?	1 = Mud/grass; 2 = Leaves/bamboo; 3 = Timber; 4 = Cement; 5 = Concrete or Tiles			
What was the main material of the floor before the project?	1 = Earth; 2 = Timber; 3 = Other; 4 = Cement; 5 = Concrete or Tiles			
What is the main material of the floor after the project?	1 = Earth; 2 = Timber; 3 = Other; 4 = Cement; 5 = Concrete or Tiles			
How many children (under 17) lived in your house before the project?	1 = Four or more; 2 = Three; 3 = Two; 4 = One; 5 = None			
How many children (under 17) live in your house now?	1 = Four or more; 2 = Three; 3 = Two; 4 = One; 5 = None			
Were you renting a house before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Are you renting a house after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Compared to before the project, how able do you feel to afford your basic needs?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able			
Compared to before the project, to what extent do you feel economically independent?	1 = Much less independent; 2 = Slightly less independent; 3 = About the same; 4 = Slightly more independent; 5 = Much more independent			
	Average			

SKILL DEVELOPMENT

Question	Answer Options	Answer Code	Score
To what extent do you feel you have learned new information useful for your work or job since the beginning of the project?	1 = Not at all; 2 = A little; 3 = I don't know / Not sure; 4 = Somewhat; 5 = A lot		
Have you applied the knowledge you gained in the project in your daily life?	1 = No; 2 = Prefer not to answer; 3 = Yes		
How much do you feel you have learned from interacting with people from a different culture?	1 = Not at all; 2 = A little; I don't know / Not sur; 4 = Somewhat; 5 = A lot		
Average			

EMPLOYMENT

Question	Answer Option	Answer Code	Score
Compared to before the project, how stable do you feel your job or employment situation is?	1 = Much less stable; 2 = Slightly less stable; 3 = About the same; 4 = Slightly more stable; 5 = Much more stable		
Compared to before the project, to what extent do you feel able to hire or support additional workers in your business or activity?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Compared to before the project, how much has your level of production changed?	1 = Much lower; 2 = Slightly lower; 3 = About the same; 4 = Slightly higher; 5 = Much higher		
Average			

SOCIAL INCLUSION

Question	Answer Option	Answer Code	Score
Compared to before the project, how important do you feel your role within your family is now?	1 = Much less important; 2 = Slightly less important; 3 = About the same; 4 = Slightly more important; 5 = Much more important		
Compared to before the project, how important do you feel your role within your community is now?	1 = Much less important; 2 = Slightly less important; 3 = About the same; 4 = Slightly more important; 5 = Much more important		
Compared to before the project, how accepted by society for who you are do you feel now?	1 = Much less accepted; 2 = Slightly less accepted; 3 = About the same; 4 = Slightly more accepted; 5 = Much more accepted		
Average			

EMPOWERMENT

Question	Answer Option	Answer Code	Score
Compared to before the project, how do you think your level of confidence is now?	1 = Much lower; 2 = Slightly lower; 3 = About the same; 4 = Slightly higher; 5 = Much higher		
Compared to before the project, to what extent do you feel you are able to make important decisions that affect your personal life?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Compared to before the project, to what extent do you feel you are able to make important decisions related to your work?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Before the project, did you have the right to sell, rent out, or give away the mats or the bed?	1 = No; 2 = Yes, jointly with other household members; 3 = Prefer not to answer; 4 = Yes, jointly with spouse; 5 = Yes, alone		
After the project, do you have the right to sell, rent out, or give away the mats or the bed?	1 = No; 2 = Yes, jointly with other household members; 3 = Prefer not to answer; 4 = Yes, jointly with spouse; 5 = Yes, alone		
	Average		



Please respond to these questions only if you, or the individual being interviewed, identifies as female.

5

Testing

In this chapter, the framework developed in the previous phase is tested and refined through fieldwork in Tanzania. Two locations and programs are involved: YEP in Misungwi and CHAKO in Zanzibar. The aim is to evaluate both usability and real-world applicability, following the Test and Implement phases of the design process. First, cognitive usability tests assess whether the questions are clear and not intrusive (Barnum, 2010; Dam & Siang, 2020). Second, field-based pilot tests explore how effectively the framework captures socio-economic impact in practice and whether any adjustments are needed to improve clarity, relevance, or feasibility.

5.1. Introduction to the Testing Process



Figure 5.1: Map of Tanzania highlighting the two fieldwork locations

Figure 5.1 shows Tanzania with Misungwi and Zanzibar marked in blue. These sites were chosen because they have collaborated with TU Delft student projects in the International Entrepreneurship and Development minor in recent years. This prior collaboration facilitated logistics and provided essential background knowledge, while the diversity of the two contexts allowed testing across distinct settings. Further details about the associations are provided in Appendix E. The testing phase combines cognitive interviews and case studies to evaluate and refine the framework. In total, 14 cognitive interviews were conducted: 7 in Misungwi and 7 in Zanzibar. Sessions took place individually, with support from local translators and Swahili translations provided as needed. This bilingual approach helped ensure accuracy and cultural appropriateness, especially for participants with limited formal education.

In Misungwi, participants were men engaged in at least Level 3 of YEP Tanzania's programme¹. In Zanzibar, CHAKO artisans were selected based on availability and a minimum of one year of experience, including both men and women. In both locations, interviews followed a semi-structured format. At the start, the voluntary nature of participation was emphasised to ensure participants did not feel any pressure to take part.

The cognitive usability testing examined whether the impact areas were relevant and meaningful to participants and assessed whether the questions were clear and non-intrusive. The interviews focused on four main topics:

¹YEP Tanzania provides entrepreneurship training in three progressive levels. Level 3 is the highest stage, after which participants are considered ready to operate independently.

1. **Relevance of impact areas:** Participants rated, on a scale from 1 (not relevant) to 5 (highly relevant), the importance of the following impact areas for evaluating the projects: Social Inclusion, Empowerment, Skill Development, Economic Wellbeing, and Employment. These ratings helped identify any areas requiring revision or removal and informed decisions about the weighting of each impact area in the final assessment model.
2. **Identification of missing areas:** Participants indicated whether any additional impact areas or aspects had been overlooked and should be included.
3. **Clarity and sensitivity of measurement questions:** A selection of six questions was presented to participants, who were asked whether each question was clear and whether it felt too personal or potentially uncomfortable to answer. These questions were specifically chosen because they had raised concerns about wording or sensitivity during the design phase.
4. **Additional feedback:** At the end of each interview, participants were invited to share any other thoughts, suggestions, or comments.

The number of open-ended questions was intentionally kept limited to reduce the risk of misunderstandings and to maintain focus and manageability. Reference materials and the full set of interview questions are provided in Section C.2 in Appendix E. After the interviews, the results were analyzed to identify any necessary adjustments to the framework.

For the field pilot testing, the case studies applied the complete framework exactly as intended for final use. One project considered generally successful and one with perceived limited impact were selected based on input from project coordinators and TU Delft minor reports. After each application, participants were invited to provide feedback on clarity and usability. Throughout the process, particular attention was paid to any comprehension issues and practical challenges encountered during implementation. Following the pilot tests, the results were analyzed to determine whether further revisions to the framework were needed.

The sequence of testing was as follows: cognitive usability testing at YEP, followed by analysis; case study implementation at YEP, followed by analysis; cognitive usability testing at CHAKO, followed by analysis; and finally, case study implementation at CHAKO, followed by analysis.

The two cognitive usability testing phases were conducted with the support of a translator, a choice that, while necessary, introduces certain limitations that will be examined in detail in the concluding sections of this thesis. In contrast, the pilot testing phase was carried out directly in English, as the participant's level of proficiency was sufficient to conduct the interview without interpretation.

5.2. Interviews at YEP Tanzania

In the first question, participants were asked to rate, on a scale from 1 (not relevant) to 5 (highly relevant), the importance of five impact areas for evaluating the projects: Social Inclusion, Empowerment, Skill Development, Economic Wellbeing, and Employment. These ratings were used to identify any areas that might require revision or removal, as well as to inform the weighting of each impact area in the final assessment model. Table 5.1 below presents the distribution of these ratings across all respondents.

Participant	Social inclusion	Empowerment	Skill development	Economic Wellbeing	Employment
P1	3	4	5	2	3
P2	3	5	4	4	4
P3	5	4	4	3	4
P4	4	5	4	4	3
P5	4	4	4	4	4
P6	3	4	4	2	5
P7	3	5	5	4	4
Average	3.57	4.43	4.29	3.29	3.86

Table 5.1: Individual participant scores across impact areas – YEP

The results of the first interview question indicate overall positive perceptions of the proposed impact areas. Participants consistently assigned high scores across categories, reflecting broad agreement

on the relevance of the domains for evaluating project outcomes. The only notably low ratings were two instances of a score of 2, both related to Economic Wellbeing. All remaining responses were 3 or higher.

The most frequently assigned score was 5, particularly in the categories of Skill Development and Empowerment, underscoring their perceived centrality in participants' experience of the projects. On average, Empowerment emerged as the most highly valued area, with a mean rating of 4.43, followed closely by Skill Development at 4.29. Employment received a mean score of 3.86, while Social Inclusion was rated slightly lower at 3.57. Economic Wellbeing had the lowest average score, at 3.29, suggesting that although participants recognised some positive financial effects, these were perceived as less substantial relative to other domains.

Given that all areas received generally favourable evaluations, none were removed from the framework. Instead, these results were taken as evidence of the overall relevance and appropriateness of the selected impact areas within this context.

This analysis is an effort to triangulate participant perceptions with the conceptual foundations of the framework, ensuring that the selected domains not only align with theoretical constructs but also resonate with the lived experience of those directly involved in the programmes.

In response to the second question, which explored whether any additional areas of impact had been overlooked, only one participant identified an aspect that could merit further consideration: the perception of increased future opportunities. This was described as a change in mindset linked to feeling more hopeful about the future and more confident in the possibility of achieving personal goals. This perspective was particularly interesting, as it highlights a dimension of psychological empowerment that extends beyond the predefined categories of the framework.

The third question examined the clarity and sensitivity of selected measurement items.

Questions	Clear?		Too personal?	
	Yes	No	Yes	No
Compared to before the project, how accepted by society for who you are do you feel now?	7	–	–	7
Compared to before the project, how do you think your level of confidence is now?	6	1	–	7
What is the main building material of the roof of your house?	7	–	3	4
How many people under 17 live in your house?	7	–	–	7
Compared to before the project, to what extent do you feel economically independent?	7	–	–	7
What is your average income per month?	7	–	5	2

Figure 5.2: Responses to Question 3 – YEP

Overall, the majority of participants found the questions understandable: six out of seven respondents considered all items clear, and only one respondent indicated difficulty in interpreting the question about confidence. However, perceptions of sensitivity varied across items.

Notably, the question on monthly income elicited discomfort among a substantial proportion of participants. Five respondents considered this question too personal, and several explicitly stated that they would prefer responding in broader, non-numeric categories such as “higher,” “lower,” or “the same,” rather than disclosing exact amounts. This feedback suggests that, despite being commonly used in socio-economic assessments, direct questions about income may undermine respondents' sense of privacy and trust in contexts where financial information is culturally sensitive.

In contrast, questions related to perceptions of social acceptance, confidence, and economic independence were consistently regarded as both clear and appropriate, with no participants identifying them as intrusive. This indicates that items addressing subjective experience were generally well received

and aligned with participants' expectations of the assessment.

The question concerning the main building material of the roof of the respondent's house produced a more mixed response. Although all seven participants affirmed its clarity, three found it too personal or were unsure about its relevance to the evaluation. Informal comments during the interviews suggested that this question was perceived as potentially judgmental or indicative of socio-economic status in a way that felt uncomfortable.

Similarly, the item about the number of people under 17 living in the household was considered clear by all respondents and not regarded as overly sensitive by any participant. This contrast reinforces the importance of testing not only whether respondents can technically understand a question but also whether it feels acceptable and respectful in the local context.

These findings highlight the need to adjust the framing of certain questions in future applications of the framework. In particular, the income item requires modification to reduce perceived intrusiveness, and additional clarification may be needed to explain the purpose of housing-related questions. Overall, this analysis underscores the value of systematically combining clarity and sensitivity checks to improve both the accuracy and acceptability of the data collection process.

In response to the fourth question, which invited participants to share any further comments or suggestions regarding the framework as a whole, no additional feedback was recorded beyond the observations already discussed.

Summary of Proposed Adjustments

Based on the findings from these interviews, several adjustments to the framework are proposed to enhance its clarity, cultural appropriateness, and overall usability:

- All five impact areas will be retained, as they were consistently rated as relevant by participants. Empowerment and Skill Development, in particular, received notably high scores, reinforcing their central importance in the assessment model.
- The perception of increased future opportunities, identified by one participant as an important outcome not explicitly addressed, will be incorporated as an additional dimension within the framework to capture this aspect of psychological empowerment.
- For the income-related questions, it is recommended that the format be revised to offer categorical response options (such as "increased," "decreased," or "no change"), in order to reduce discomfort and improve the accuracy and completeness of responses.
- To address the confusion and perceived intrusiveness associated with certain proxy indicators, such as questions about housing materials, a concise explanatory note should be included prior to each item to clarify its purpose and relevance to understanding economic wellbeing.

Collectively, these proposed refinements reflect a commitment to ensuring that the framework remains both methodologically rigorous and responsive to participants' perspectives, thereby strengthening its validity and acceptability in future applications. These changes have been incorporated, and the following section, which describes the case study conducted on a project at YEP, applies the revised version of the framework.

5.3. Case Study 1: Drip Irrigation at YEP-Tanzania

From the outset, both the students involved in the project and their academic supervisors considered this intervention highly promising. The project was implemented during the 2023–2024 academic year and focused on designing and installing a sustainable drip irrigation system at the YEP farm-school. The primary aim was to improve water efficiency and enable off-season farming, thereby increasing harvest frequency and potentially boosting farmer income.

The technical component included constructing a new elevated stand for the irrigation tank, enlarging the existing mother tank, and integrating an automated solar pump system with a sensor to allow fully autonomous operation. From a sustainability perspective, the project sought to reduce water waste and eliminate reliance on petrol-powered pumps. Socially, it emphasised co-creation with local farmers, who were involved in design decisions, contributed to seed investments, and participated in

workshops on long-term planning and business management.

According to the student team's report, one notable outcome was a change in mindset among the farmers, who began to see the irrigation system not simply as a technical improvement but as a business investment capable of generating tangible returns. While the students had initially anticipated that automation might reduce employment, subsequent observations suggested that the new system created additional work opportunities.

5.3.1. Participant Reflections

The framework was tested with a farmer who directly benefited from the intervention and participated in its implementation as well as its daily operation. Although the interview was designed primarily to collect quantitative ratings, the participant naturally elaborated on nearly every response, offering detailed reflections on his experience. He explained that he felt more included within both his family and the broader community, particularly because drip irrigation technology had never been used in the area before. After the installation, many local farmers visited his land to observe the system in action and learn about its functioning. As he described:

“People from around here came to see what we were doing. It made me feel like my work mattered.”

He added that his parents also began to view his efforts differently, expressing pride in what he had achieved and showing greater respect for his role as a farmer. This shift was significant to him, as it contributed to a stronger sense of recognition and personal value. Beyond the visible technical improvements, he identified social acceptance and acknowledgment as some of the most meaningful outcomes of the project.

In terms of planning and decision-making, he reported that the project had fundamentally changed his perspective. Prior to the intervention, long-term planning felt abstract and impractical, mainly because of the lack of reliable tools and infrastructure. With the new system in place, he felt better equipped to manage agricultural tasks more proactively and to make decisions with greater confidence. As he explained:

“Now I can actually think about next steps. Before, we were just reacting to problems.”

He further emphasised that collaboration with the TU Delft students was a valuable learning experience. Observing their methods and approaches introduced him to more structured ways of organising work and solving problems. He also noted that these interactions improved his English language skills and broadened his perspective on farm management. He described this process as a key contributor to his growing confidence:

“Talking with the students helped me organise my work better. I saw how they planned things, and I started doing the same.”

On the economic side, he reported that both productivity and income had increased following the introduction of the system. He attributed these improvements to higher crop yields, more reliable irrigation, and the ability to cultivate during periods that were previously impractical due to water constraints. When asked for final feedback at the conclusion of the interview, he responded positively, stating that all questions were clear, relevant, and not intrusive. He expressed appreciation for the opportunity to share his views and confirmed that the assessment process covered all the essential areas needed to evaluate the project's impact.

The participant's detailed responses are presented in full in Section F.1.

5.3.2. Quantitative Results

The quantitative results of the assessment are presented in Figure 5.3 and reflect the project's overall strong performance across the evaluated areas. Empowerment and Skill Development each received the maximum score of 1.00, indicating a very strong positive impact in these domains. Social Inclusion was rated at 0.75, while Employment and Economic Wellbeing reached 0.67 and 0.61 respectively, both of which fall within the category of moderate positive impact.

These scores were derived using the normalisation and scoring procedures outlined in Chapter ??.

According to this approach, the final aggregated score for the project was 0.89, which is classified as a strong positive impact. This outcome supports the conclusion that the intervention was highly effective, particularly in enhancing individual capacities and skills, while also suggesting some scope for further improvement in the areas of employment and economic wellbeing. A detailed explanation of how the final score was calculated will be provided in the following chapter.



Figure 5.3: Impact Scores by Area – YEP Tanzania

Interpretation and Observations

Expectations for this project were high, given the introduction of advanced technical infrastructure and the strong engagement of participants throughout its development and implementation.

During the interview, the participant occasionally required clarification of certain questions and repetition of the response scale. However, these minor issues did not compromise the validity of the responses and are expected to be mitigated in future applications, where the questions will be provided in written form rather than delivered orally. No concerns were raised, nor were any suggestions for additional improvements proposed.

Overall, the results aligned closely with the initial expectations shared by the student team and project supervisors. The combination of strong quantitative scores and detailed qualitative feedback confirmed the project's effectiveness in strengthening individual capacities while also identifying areas of moderate impact that may benefit from further attention. Given the clarity of the findings and the absence of significant difficulties during implementation, no revisions to the framework were deemed necessary on the basis of this case study.

5.4. Interviews at CHAKO

The results of the first question, which asked participants to evaluate the relevance of the five proposed impact areas, are presented in Table 5.2. Overall, the ratings were highly positive across most domains. Skill Development emerged as the most valued area, with an average score of 4.86, reflecting the strong emphasis CHAKO places on learning new techniques and expanding artisans' capacities. Social Inclusion followed closely, with an average of 4.57, suggesting that involvement in the project was perceived as an important factor in strengthening community ties and increasing visibility. Empowerment also received a high average rating of 4.00.

In contrast, Economic Wellbeing and Employment were rated lower, with averages of 3.14 and 2.29 respectively. These more modest scores were largely attributed to the seasonal and order-based nature of CHAKO's production model, which limits the availability of work even when skills improve. One participant explained, "We are better at our work, but we still depend on how many orders come," while another observed, "I learned many new skills, but there is not always work available." These reflections highlight the distinction between skill acquisition and consistent income generation, a theme that

Participant	Social Inclusion	Empowerment	Skill Development	Economic Wellbeing	Employment
P1	5	4	5	4	4
P2	5	4	5	3	3
P3	4	5	5	3	2
P4	5	3	5	2	1
P5	3	3	5	3	2
P6	5	4	4	3	2
P7	5	5	5	4	2
Average	4.57	4.00	4.86	3.14	2.29

Table 5.2: Individual participant scores across impact areas – CHAKO

recurred throughout the interviews.

In response to the second question, which explored whether any important areas of impact had been overlooked, all participants agreed that the five identified domains were sufficient to capture the main dimensions of change associated with the project. No additional areas were suggested, indicating that the framework was generally perceived as comprehensive and relevant in this context.

With the third question, which asked participants to reflect on the clarity and sensitivity of the measurement questions, a range of perspectives emerged. As shown in Figure 5.4, while most participants found the questions clear overall, five out of seven respondents reported discomfort with the item on monthly income, describing it as too personal. All expressed a preference for using categorical responses such as “more than before” or “less than before” rather than providing exact amounts. Two participants indicated that the question about social acceptance felt sensitive, highlighting that perceptions of community status can be emotionally charged. Additionally, two artisans initially viewed the question about the main material of their roof as intrusive or potentially judgmental. After its purpose was explained, however, they reported understanding its relevance and no longer considered it problematic. As one participant explained: *“I thought you were checking if my house was good enough and felt like an investigation, but now I understand it is about income.”*

Questions	Clear?		Too personal?	
	Yes	No	Yes	No
Compared to before the project, how accepted by society for who you are do you feel now?	7	–	2	5
Compared to before the project, how do you think your level of confidence is now?	7	–	1	6
What is the main building material of the roof of your house?	7	–	2	5
How many people under 17 live in your house?	7	–	1	6
Compared to before the project, to what extent do you feel economically independent?	7	–	1	6
What is your average income per month?	7	–	7	–

Figure 5.4: Responses to Question 3 – CHAKO

In response to the fourth and final question, which invited participants to share any further comments or suggestions regarding the framework, no additional feedback was provided beyond the observations already discussed. Overall, the results confirm that the framework was largely well received and that it effectively captured the relevant aspects of artisans’ experience, while also identifying areas where adjustments are necessary to improve clarity and reduce perceived sensitivity.

5.4.1. Summary of Considerations for the Framework

The interviews conducted at CHAKO led to several considerations for refining the framework:

- All five impact areas will be retained as relevant. Although Employment received lower scores, these were understood to reflect the specific structure of CHAKO's order-based production model rather than any lack of importance of the indicator itself.
- The income-related questions will be revised to adopt categorical response formats to reduce discomfort and improve response rates. This preference was also expressed by participants during the cognitive usability testing in Misungwi, and its recurrence in a different context reinforces the appropriateness of making this change.
- Proxy questions, such as those concerning the main material of the roof, will be preceded by a short introduction explaining their purpose and relevance. This adjustment was likewise identified as necessary in Misungwi, and observing the same need in CHAKO confirms that such clarification is essential to avoid misunderstandings and perceptions of intrusiveness.

The consistency of these findings across both sites highlights that the proposed adjustments are not context-specific but reflect broader considerations relevant to diverse project settings. This convergence strengthens confidence that the changes will contribute meaningfully to improving clarity, acceptability, and overall data quality in future applications of the framework.

5.5. Case Study 2: Bicycle-Powered Shredder at CHAKO

From the outset, expectations for this project were considerably lower than for the previous case, as both the students involved and their academic supervisors regarded the intervention as largely unsuccessful. Implemented during the 2020–2021 academic year, the project aimed to develop a bicycle-powered plastic shredder designed to address two challenges: rising obesity rates in Zanzibar and the limited plastic recycling capacity in the region.

Obesity remains a significant public health concern, with prevalence among women of reproductive age increasing from 19.4% in 2012 (Jourdan, 2012) to 41.8% in 2025 (MedRxiv, 2025). At the same time, waste management has posed persistent difficulties, as Zanzibar generates approximately 663 tons of solid waste per day, of which only about half is formally collected. The project concept sought to combine physical activity with environmental sustainability by enabling employees to power the shredder through pedalling, thereby promoting exercise and reducing dependence on grid electricity.

Despite an initial partnership with Swapfiets to develop the design, the machine ultimately never fulfilled its intended purpose. Although it remains present at CHAKO's facility, it is now mainly used for occasional tourist demonstrations, and the shredded plastic is not consistently repurposed into new products. While expectations included improvements in staff health, reductions in energy use, and enhanced employment opportunities, observations and project reports indicate that these outcomes were not realised. The shredder processes only about one kilogram of plastic per hour compared to ten kilograms for an electric model, and its impact on production or income generation appears minimal. Nonetheless, the project provided an opportunity to test whether the framework could capture partial or intangible results in a context where tangible benefits were limited.

5.5.1. Participant Reflections

The framework was applied with the only CHAKO employee who both participated in the project and remained employed at the time of the fieldwork. Thanks to the participant's fluency in English, the interview proceeded without the need for translation, and his detailed responses are presented in Section F.2.

Although the operational use of the shredder appeared very limited—an impression confirmed by direct observation during the two-week field stay and by feedback from other staff—the participant nonetheless described a strong personal connection to the project. He explained that he frequently used the bicycle component and found it beneficial both physically and psychologically:

“Riding the bike really helps me clear my mind. It gives me more confidence.”

He further stated that the shredder contributed to improving his income, although this claim could not be verified and was not corroborated by colleagues:



Figure 5.5: Impact Scores by Area – CHAKO

“With the shredder, I can make more money and this helps me financially.”

Additionally, he described the collaboration with TU Delft students as a motivating experience, emphasising that their structured work methods and disciplined time management had influenced his own practices:

“Their discipline and time planning motivated me to change how I do things.”

At the conclusion of the interview, he confirmed that the questions were clear, relevant, and easy to understand and felt that all key aspects of the project had been adequately addressed.

Quantitative Results

The quantitative results of the assessment are presented in Figure 5.5. Skill Development received the highest score (1.00), reflecting the participant's perception of learning and personal growth. Employment was rated at 0.75, and Empowerment at 0.67. Economic Wellbeing and Social Inclusion were rated more moderately, at 0.57 and 0.50 respectively. According to the normalisation and scoring methods described in Section 5.7, the final aggregated score was 0.71, which is categorised as a moderate positive impact.

Interpretation and Observations

The final score exceeded initial expectations, given the limited operational use of the shredder. During the interview, several responses appeared inconsistent with field observations and information provided by other staff members. For example, although the participant stated that the shredder was used regularly and contributed significantly to income, these claims were not supported by any evidence gathered during the field stay.

One likely explanation is that the interviewee may have felt uncomfortable providing negative feedback. Despite assurances of confidentiality, he was the only remaining employee directly involved in the project, making his identity easily identifiable. This situation underscores the importance of triangulating responses with multiple informants wherever possible to reduce the risk of biased or overly optimistic reporting.

Based on this experience, no changes to the question set are considered necessary, as the participant found the questions appropriate, clear, and relevant. However, a key recommendation has been added to the framework guidelines: wherever feasible, data collection should involve multiple respondents to ensure a more balanced assessment and mitigate the risk of response bias. This case also highlights the need to interpret scores critically, especially in situations where individual accounts diverge from broader contextual evidence. The combination of inconsistent qualitative statements and

moderate quantitative ratings illustrates how careful analysis is essential when assessing projects that have produced limited or ambiguous outcomes.

5.6. Modifications Derived from Interviews and Testing

Following the interviews and the two rounds of field testing, a series of targeted adjustments were introduced to strengthen the original framework presented in Chapter 6. These refinements were driven by direct participant feedback, observations collected during field implementation, and critical reflection on the framework's usability and cultural appropriateness.

Table 5.3 provides an overview of the principal areas of change and the rationale underpinning each modification.

Area of Change	Modification
Income Measurement	Reformulated as a perception-based question rather than a direct numeric value, in response to participants' discomfort with disclosing income amounts.
Proxy Indicators	Introduced a short explanatory note before each proxy item to improve transparency and reduce feelings of suspicion or intrusion.
Empowerment	Added a forward-looking indicator on perceived future opportunities to better capture psychological dimensions of impact.
Bias Mitigation	Recommended collecting responses from multiple participants per project to enhance data reliability and reduce the risk of selective reporting.

Table 5.3: Summary of improvements introduced following field research

Reformulation of Income-Related Questions

During the interviews, twelve out of fourteen participants indicated that direct questions about monthly income, such as *"What is your average income per month?"*, felt invasive and would likely remain unanswered or prompt socially desirable responses. When offered an alternative phrasing focused on perceptions of change over time, all twelve respondents confirmed that this approach felt more comfortable and appropriate.

Consequently, the income-related question was reformulated to emphasise self-assessed improvement or decline rather than precise amounts. The revised question is presented below:

Question	Options
Compared to before the project, how do you think your average monthly salary has changed?	1 = Significantly decreased 2 = Slightly decreased 3 = No change 4 = Slightly increased 5 = Significantly increased

This adjustment is intended to respect participants' privacy while still generating meaningful data about changes in economic wellbeing.

Clarification of Proxy-Based Questions

A recurrent observation during the fieldwork concerned the discomfort caused by proxy questions, such as inquiries about housing materials or household composition. Seven respondents reported feeling that such questions were intrusive or implied judgment.

However, once the rationale behind these items—as indirect estimators of income—was clearly explained, participants generally accepted their inclusion. To prevent misunderstandings in future applications, each proxy question will now be introduced by a short explanatory statement:

“The following questions are used to better understand general living conditions, as an indirect way to estimate income level.”

This clarification is designed to strengthen transparency and reduce the likelihood of discomfort or suspicion.

Integration of a Forward-Looking Indicator

One participant in Misungwi highlighted that the original framework lacked any explicit consideration of expectations or aspirations for the future. He described that, beyond tangible improvements in income or skills, participation in the project had increased his sense of hope and confidence.

This insight was considered highly relevant, given that perceptions of future opportunity are strongly associated with psychological wellbeing and behavioural choices in low-income settings (Bernard et al., 2014; Haushofer & Fehr, 2011). After consultation with local coordinators and review of supporting literature, a dedicated indicator was incorporated into the Empowerment section.

The final formulation of this question is as follows:

Question	Options
Compared to before the project, to what extent do you feel positive about your future?	1 = Much less positive than before 2 = Less positive than before 3 = No change 4 = More positive than before 5 = Much more positive than before

The addition of this item reflects the intention to capture psychological dimensions of impact alongside material changes.

Mitigating Bias through Broader Participation

Field testing also underscored the importance of including multiple respondents when assessing project outcomes. This need was particularly evident during testing in Zanzibar, where certain responses appeared inconsistent with observations and with feedback from other staff members.

As discussed in Section 6.3, reliance on single interviews increases the risk of bias, whether through social desirability, selective reporting, or fear of repercussions. To mitigate this, it is now explicitly recommended that the framework be administered to more than one participant involved in each project whenever feasible.

Triangulating responses from several perspectives provides a more robust and nuanced understanding of project impact, while also reducing the influence of individual perceptions or outlier experiences.

Taken together, these revisions illustrate the iterative process that underpinned the development of the framework. They also reflect the commitment to balancing conceptual clarity with cultural sensitivity, and methodological rigour with operational practicality.

The phrase adds: *To improve the reliability of results, it is advised to involve multiple participants whenever possible, so that different perspectives can be compared and a more balanced understanding of the project's impact can be achieved.*

5.7. Final Scoring System

This section describes how to calculate the final overall impact score based on the individual results obtained for each of the five impact areas. It explains the process of combining the scores using the selected weights to produce a single, interpretable measure of project impact.

5.7.1. Normalized Mean Approach

During the development of this framework, significant attention was dedicated to identifying a rigorous method to determine the relative importance of each impact area. Initially, the Analytic Hierarchy Process (AHP) was selected as the preferred approach, due to its extensive use in multi-criteria decision-making and impact evaluation contexts Saaty, 1980; Vargas, 1990. AHP is a structured technique that enables decision-makers to express their preferences by comparing each criterion against all others. This method requires respondents to perform pairwise comparisons, systematically judging whether one dimension is more important than another and to what extent. The resulting matrix of comparisons is used to derive a consistent set of proportional weights that reflect the relative importance assigned to each criterion OECD, 2008. The main advantage of AHP is that it allows the combination of qualitative insights with quantitative prioritization. It also provides mechanisms to verify the internal consistency of judgments, offering a measure of the logical coherence of stakeholder inputs. Specifically, the method calculates a Consistency Ratio (CR) that indicates whether the preferences expressed are stable and reasonable Saaty, 1990. However, applying AHP requires specific conditions that were not fully met in this project context. In particular:

- **Pairwise comparison requirement:** AHP normally requires participants to directly compare each pair of impact areas to decide which one is more important. In this study, stakeholders only gave overall ratings on a scale from 1 to 5, without making these pairwise comparisons. This reduced the accuracy of the results.
- **Sample size constraints:** Since there were only 14 respondents from different backgrounds, the priorities calculated were less robust. Even small differences in how people rated the areas caused large changes in the final weights.

Given these limitations, using AHP was considered unsuitable for this framework and the type of data collected. This decision was not taken lightly: AHP remains a rigorous and established method for defining priorities when sufficient time, consistent information, and resources are available to carry out detailed pairwise comparisons. However, in this case, practical constraints and the need for clarity led to the adoption of a simpler and more accessible alternative.

Instead of AHP, the framework applies a direct rating and normalization approach. In this method, each stakeholder assigns a numerical score indicating the perceived importance of each impact area. These ratings can be collected on any consistent ordinal scale, such as 1–5 or 1–10. The scores for each area are averaged to calculate mean importance ratings, which are then divided by the total sum of means to produce proportional weights summing to 1. This process retains the relative importance expressed by stakeholders in a transparent and replicable way. It is widely recommended in the construction of composite indicators when expert judgments are available but more complex comparisons are impractical OECD, 2008.

This methodological choice is consistent with recommendations from evaluation literature, which emphasize that in contexts with small sample sizes and limited technical capacity, simpler weighting methods are often preferable. Direct rating and normalization help avoid the illusion of precision and reduce barriers for practitioners, making frameworks easier to apply without compromising validity Gertler, Martinez, Premand, Rawlings, and Vermeersch, 2016; OECD, 2008.

The final weights were established through a structured process of collecting, aggregating, and normalizing stakeholder ratings. These were gathered during field interviews in Tanzania with representatives from YEP Tanzania and the CHAKO Organization. Participants were asked to rate the relevance of five key impact areas—Social Inclusion, Empowerment, Skill Development, Economic Wellbeing, and Employment—on a scale from 1 (not relevant) to 5 (highly relevant). The detailed results are presented in Table 5.1 and Table 5.2. The steps involved in this calculation are described below.

Step 1 – Calculation of mean scores

First, for each impact area j , the individual ratings assigned by all respondents were aggregated. Specifically, the scores given by each participant were summed and then divided by the total number of respondents to compute the mean importance score for that area. This mean represents the average perception of relevance attributed to the impact area by stakeholders. The formula applied is as follows:

$$\text{Mean}_j = \frac{\sum_{i=1}^n x_{ij}}{n}$$

where:

- x_{ij} is the score assigned by respondent i to impact area j ,
- $n = 14$ is the number of respondents who provided a rating.

Step 2 – Calculation of the sum of means

Once the mean score for each impact area was determined, all mean values were summed to produce a total reference value. This sum serves as the denominator for the normalization process in the next step. Computing this total ensures that each mean can be expressed proportionally relative to the collective importance attributed to all areas together. The calculation is expressed as:

$$S = \sum_{j=1}^m \text{Mean}_j$$

where $m = 5$ represents the number of impact areas included in the framework.

Step 3 – Normalization of the mean scores

In the final step, each mean score was divided by the total sum of all means calculated in Step 2. This operation converts each mean into a proportional weight that indicates the relative importance of the corresponding impact area. Because the scores are normalized, the resulting weights sum exactly to 1, which facilitates their application in calculating composite impact scores and ensures comparability across assessments. The normalization formula is:

$$\text{Weight}_j = \frac{\text{Mean}_j}{S}$$

The final recommended weights obtained through this procedure are presented in Table 5.6. For clarity and ease of application, the weights have been rounded to two decimal places.

Impact Area	Final Weight
Skill Development	0.24
Empowerment	0.22
Social Inclusion	0.21
Economic Wellbeing	0.16
Employment	0.16

Table 5.6: Final recommended weights for each area of impact

Step 4 – Calculation of the final impact score

Once all five impact areas have been scored for a given project (with each score expressed as a normalized value between 0 and 1), the final impact score is computed as a weighted sum of these scores. The weights correspond to the recommended proportions derived in the previous step. The formula applied is:

$$F = (0.24 \times S_{SD}) + (0.22 \times S_E) + (0.21 \times S_{SI}) + (0.16 \times S_{EW}) + (0.16 \times S_{EM})$$

where:

pF = Final impact score. S_{SD} = Normalized score for Skill Development. S_E = Normalized score for Empowerment. S_{SI} = Normalized score for Social Inclusion. S_{EW} = Normalized score for Economic Wellbeing. S_{EM} = Normalized score for Employment.

Step 5 – Interpretation of the final score

The resulting value of F provides an overall summary measure of the project's socio-economic impact, expressed on a standardized scale between 0 and 1. For ease of interpretation, this value can be categorized as follows:

Range	Interpretation
0.00–0.19	Strong negative impact: substantial deterioration in the conditions assessed, suggesting the project may have caused harm or failed to mitigate existing problems.
0.20–0.39	Mild negative impact: partial worsening of conditions, though less pronounced than the previous category. May indicate unintended negative effects or insufficient support.
0.40–0.59	No significant impact: overall conditions remain approximately the same, with neither meaningful improvement nor deterioration perceived.
0.60–0.79	Moderate positive impact: clear and consistent improvements in the relevant dimensions.
0.80–1.00	Strong positive impact: substantial and broad improvements across the area, indicating that the project achieved or exceeded its intended goals.

Table 5.7: Interpretation scale for impact area

This classification is designed to support consistent reporting and it's the same for understanding the result of each area of impact.

5.7.2. Flexibility and Adaptation of Weights

Although the weights presented above are recommended to support consistency and comparability across assessments, the framework has been designed to remain flexible. This flexibility allows practitioners to adapt the weighting scheme to better reflect the priorities of specific projects or stakeholder groups. However, to maintain methodological rigor and avoid compromising the interpretability of results, certain conditions must be respected when defining alternative weights:

- **Each weight must be a numeric value between 0 and 1.**
This requirement ensures that weights remain valid probability-like proportions. Values outside this interval could distort the aggregation process, generate scores that exceed the intended scale, or create negative contributions that have no substantive meaning in this context OECD, 2008.
- **The sum of all five weights must be exactly 1:**

$$\sum_{j=1}^5 \text{Weight}_j = 1$$

This constraint guarantees that the final composite impact score remains bounded between 0 and 1, preserving its interpretation as a normalized measure of performance. Normalized weights also make results directly comparable across projects and time periods, which is a fundamental principle in constructing composite indicators Gertler, Martinez, Premand, Rawlings, and Vermeersch, 2016; OECD, 2008.

Example Example of Customized Weights

If a project places particular emphasis on economic results, practitioners may decide to adjust the weighting scheme accordingly. For instance, in an entrepreneurship programme aiming to improve income generation and employment stability among women artisans, the following weights could be adopted: *Skill Development: 0.15; Empowerment: 0.20; Social Inclusion: 0.10; Economic Wellbeing: 0.30; Employment: 0.25*. To illustrate how the final impact score is computed, consider this example. A project reports the following normalized scores: *Skill Development: 0.80; Empowerment: 0.70; Social Inclusion: 0.60; Economic Wellbeing: 0.50; Employment: 0.40*. Applying the recommended weights, the calculation is as follows:

$$F = (0.24 \times 0.80) + (0.22 \times 0.70) + (0.21 \times 0.60) + (0.16 \times 0.50) + (0.16 \times 0.40)$$

$$F = 0.194 + 0.154 + 0.126 + 0.080 + 0.064 = 0.618$$

The final impact score of 0.62 can be interpreted using the framework's scale: in this case, it indicates a moderate to high positive impact across the assessed dimensions.

6

The Final Framework

This chapter presents the final version of the framework designed. It begins with an overview of its main components and characteristics. The chapter then describes the digital implementation developed to support consistent and efficient use, as well as the main limitations identified during field application. Finally, it introduces the completed framework, together with practical guidance for its application.

6.1. Overview of the Revised Framework

The final framework is the outcome of a step-by-step process that combined literature review, expert consultation, and field testing carried out in Tanzania over several months. It is organised around five main areas of impact: **Skill Development, Empowerment, Social Inclusion, Economic Wellbeing, and Employment**.

Each area is linked to specific indicators and a set of 30 questions designed to capture both measurable changes and individual perceptions.

To make the framework practical and suitable for different settings, several features were incorporated.

- **Time-efficient:** Based on informal testing sessions with respondents unfamiliar with the tool, the average time required to complete a full assessment was approximately 12 minutes for Version 1 (see Table H.1).
- **Linguistically accessible:** The framework is available in both English and Swahili.¹
- **Flexible in timing and format:** Four complete versions of the framework have been developed to accommodate different measurement needs and languages. An English post-only assessment is available for situations where no baseline data exists, focusing on participants' perceptions of change after the project. The English pre- and post-assessment version enables data collection before and after implementation, supporting more rigorous analysis. Both versions are also available in Swahili to ensure broader accessibility, including a post-only format and a pre- and post-assessment format that allows before-and-after comparison while remaining easy to administer. Additionally, the framework includes a dedicated set of gender-sensitive questions designed for women or individuals who identify as women, to document gender-related impacts more accurately. Finally, the weighting of each Area of Impact can be customised, enabling users to adapt the framework to different project priorities and objectives.
- **Gender-sensitive:** A dedicated set of questions is included for women or individuals who identify as women, to document gender-related impacts more accurately.
- **Customisable weighting:** Users can adjust the weight assigned to each Area of Impact when calculating overall results. This flexibility allows the framework to be adapted to different project priorities or objectives.

The scoring method, including how raw responses are normalised and aggregated, is described in Section ??.

¹Swahili is spoken by the majority of the Tanzanian population either as a first or second language. See: <https://www.bbc.com/news/world-africa-63120595> (BBC News, 2022).

Overall, this framework is intended for project teams, researchers, NGOs, students, and practitioners who need to capture both quantitative and qualitative aspects of change. Its use is voluntary and flexible: it can be applied either as a self-assessment tool or through interviews. Finally, a digital version has been developed to help with data collection and automatic scoring. This implementation was created to support consistent use in both fieldwork and research contexts.

6.2. Digital Implementation

To support practical use and improve consistency, the framework was implemented as an interactive web-based tool. The platform integrates the complete scoring methodology and provides a structured, user-friendly interface that allows practitioners to conduct assessments without manual calculations or spreadsheets.

The web application was developed in Python using *Streamlit*² for rapid prototyping and *Plotly*³ to create interactive visualisations. Development was carried out in *Visual Studio Code*⁴, with environment configuration and package management managed via *Anaconda*⁵.

The platform is available in both English and Swahili to enhance usability in the Tanzanian context. Particular attention was devoted to making the tool intuitive and accessible, enabling users to complete assessments with minimal training. By embedding the scoring and visualisation processes directly into the application, the tool reduces the risk of human error, shortens the time required to process results, and improves clarity for practitioners and decision-makers.

6.2.1. Pages and Functionality

The web application consists of three primary sections:

- **Homepage:** Provides an overview of the framework, including its objectives, theoretical basis, and the main reasons for its development.
- **Guideline:** Contains practical instructions for applying the framework, with detailed guidance on preparation, administration, and interpretation, as well as information about key limitations and recommended precautions.
- **Assessment:** This is the core functionality where users complete the questionnaire. They are guided step by step through all questions and select their responses directly within the interface. Once all questions have been answered, the tool automatically calculates the results. These include both numerical scores for each area of impact and interactive visualisations—such as bar charts and radar plots—that allow users to quickly understand patterns and overall performance.

On the assessment page, respondents first select whether they wish to conduct a post-project evaluation or a pre- and post-project comparison. They are also asked to indicate their gender identity by choosing “Male,” “Female,” or “Prefer not to say.” This approach enables the inclusion of four questions specifically designed to capture gender-related impacts, while ensuring participation remains voluntary and respectful. The module follows current best practices in gender-sensitive data collection (Gallup, 2023; of Oxford, 2023).

A key feature of the application is the option to adjust the weights assigned to each impact area through a sliding scale interface. Default weights, derived from field testing and expert input, are preloaded for convenience, but users can modify them to reflect project-specific priorities or stakeholder preferences. This flexibility allows exploration of different scenarios and shows how weighting decisions influence aggregated results.

Combining automated scoring with immediate visual output not only saves time but also makes results easier to interpret and communicate. The platform was developed with the aim of translating the framework into a practical tool suitable for fieldwork, training, and research, while minimising technical barriers for users. The web layout is shown in Figure 6.1.

²Streamlit is an open-source Python framework for developing interactive data applications. See: <https://streamlit.io>

³Plotly is a graphing library for creating interactive charts. See: <https://plotly.com/python/>

⁴Visual Studio Code is a source-code editor developed by Microsoft. See: <https://code.visualstudio.com/>

⁵Anaconda is a Python and R distribution for scientific computing. See: <https://www.anaconda.com/>

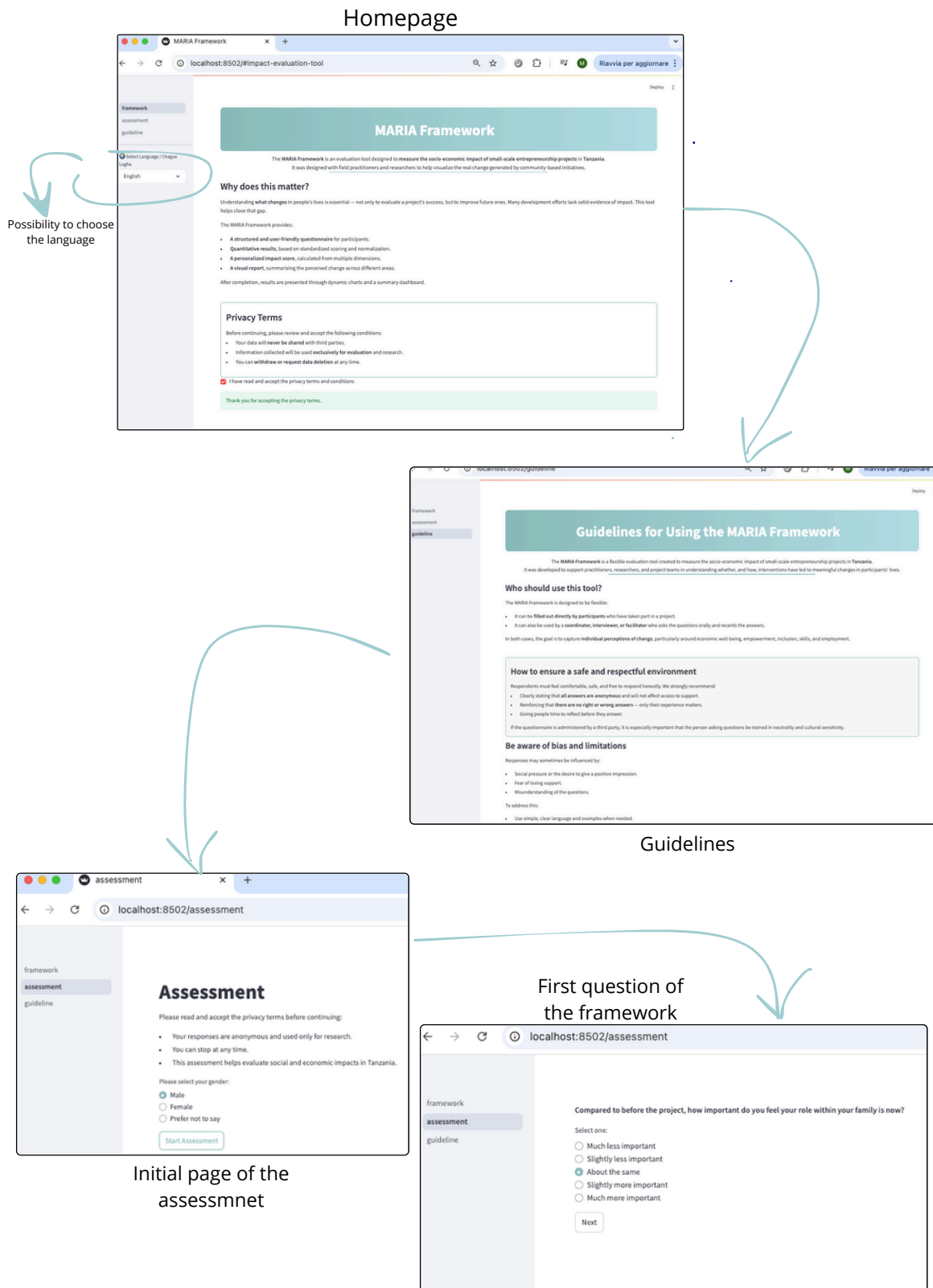


Figure 6.1: Web application layout

6.3. Limitations

Although considerable effort was devoted to planning, implementing, and documenting the research as rigorously as possible, it is important to acknowledge that limitations inevitably remain. These factors should be taken into account when applying the framework or interpreting the results. The main limitations of this study can be grouped into three categories: (1) those related to the researcher, (2) those linked to the research design and data collection process, and (3) those concerning the final framework itself. Articulating these limitations is essential for accurately interpreting the findings and understanding the boundaries of what the study could reasonably achieve (Creswell, 2014; Maxwell, 2013).

Limitations Related to the Researcher

- **Inexperience with Fieldwork.**

This was my first experience conducting field research in Africa, and specifically in rural Tanzania. Although I had prior involvement in projects situated in low-income or crisis-affected settings, this was the first occasion in which I collected data in person in this context. I prepared extensively in advance and took deliberate steps to create a respectful and open environment. Nevertheless, I am aware that some cultural dynamics or subtle social cues may have escaped my attention. This inexperience could have influenced the degree of trust established with participants or shaped the depth and candour of their responses.

- **Potential for Confirmation Bias.**

Given that I was both the designer of the framework and the primary researcher responsible for testing it, there was an inherent risk of confirmation bias. While I adopted a reflective stance and worked to remain as objective as possible, it is plausible that I unconsciously focused more on feedback that validated my expectations and ideas while underemphasising more critical perspectives (Nickerson, 1998).

Limitations of the Research Design and Data Collection

- **Limited Expert Engagement.**

Although the study initially targeted a broader group of stakeholders, only twelve expert interviews were ultimately conducted. Despite outreach to approximately sixty contacts, the limited number of respondents and the short data collection period (around six weeks) inevitably constrained the diversity of viewpoints represented.

- **Restricted Geographic Scope.**

Testing was confined to two locations: YEP Tanzania in Misungwi and CHAKO in Zanzibar. While these settings offered valuable insights, they reflect only a narrow slice of organisational models and contexts. Expanding the research to include more organisations and geographic regions could have strengthened the robustness of the findings and increased the framework's relevance to other contexts. However, time and logistical constraints prevented this broader inclusion, limiting generalisability.

- **Lack of Female Representation in Testing.**

Although the framework incorporates two questions specifically designed to capture gender-related impacts, no women participated in the testing phase. In Misungwi, all respondents were male, while in Zanzibar, no women involved in the projects remained employed at the time of data collection. This omission limits confidence in the clarity and cultural appropriateness of the gender-focused questions.

- **Use of Coordinator-Translators.**

During fieldwork, I relied on translators who were also local project coordinators to interpret between English and Swahili. While this approach ensured continuity and practical support, it may have introduced unintended pressure for participants to provide favourable feedback. The dual role of coordinator-translator can contribute to response bias and inhibit candid expression (Bert-erame et al., 2024).

- **Contextual Misalignment with CHAKO's Organisational Model.**

Field observation revealed that CHAKO artisans do not operate as small-scale entrepreneurs

in the conventional sense. Instead, they are compensated per piece in a production process resembling an assembly line and do not engage in marketing or end-to-end product development. This distinction was not evident prior to fieldwork and limits the extent to which findings from CHAKO can be generalised to other entrepreneurship-focused initiatives.

Limitations of the Final Framework

- **Limited Sector-Specificity.**

The framework was intentionally designed to be applicable across diverse types of small-scale entrepreneurship. While this enhances its versatility, it also means that it does not incorporate sector-specific indicators. As a result, it may offer less granular insight for projects operating in specialised fields such as digital training, renewable energy, or health access, where tailored metrics could provide a more accurate reflection of impact.

- **Reliance on Self-Reported Data.**

The accuracy of results depends entirely on participant responses. As the framework is based on self-assessment, answers are subject to optimism bias, social desirability, memory constraints, or misinterpretation. While the questionnaire was designed to be clear and structured, the final outputs remain shaped by the respondents' subjective accounts (van de Mortel, 2008).

- **Timing and Interpretation of the Assessment.**

The point in time when the framework is applied can significantly affect the results and their interpretation. When an assessment is conducted soon after project completion, it is more likely to capture early signals of change, especially in areas such as Skill Development or Empowerment, where improvements tend to emerge quickly (Gertler, Martinez, Premand, Rawlings, & Vermeersch, 2016; OECD & Centre, 2008). In contrast, dimensions like Economic Wellbeing or Employment often require a longer period before measurable effects become visible (Rogers, 2014).

Different time points therefore enable the observation of distinct types of impact. Measurements taken in the immediate aftermath of a project can reflect initial outcomes, while assessments carried out later may highlight more sustained changes. However, these later measurements also introduce risks such as recall bias and attribution error (Bamberger, 2006; Bourne & Russo, 2003; Carter & Weber, 2012).

This framework was deliberately designed to be applicable across various timeframes, precisely because there is no universally agreed definition of when a change should be classified as an "impact" rather than an "outcome." As noted in the evaluation literature, these categories often overlap in practice and depend on the timeframe, context, and purpose of the assessment (Bamberger, 2006; Rogers, 2014).

The flexibility of the weighting system allows practitioners to emphasise the areas that are most relevant to the moment when data are collected. This ensures that short-term and longer-term effects can be interpreted appropriately. For this reason, it is essential that any application of the framework clearly documents when data collection took place and explicitly acknowledges how timing may influence the findings. Where feasible, combining an initial assessment with a follow-up evaluation after six to twelve months is recommended, as this approach can provide a more comprehensive understanding of project impact over time (GaarderAnnan2010; Rogers, 2014). It is also important to note that when the post-only version of the framework is used, and no baseline data are available, results may be affected by recall bias. Participants might have difficulty accurately remembering their previous situation, especially if several months have passed since the start of the project. Where feasible, combining an initial assessment with a follow-up evaluation after six to twelve months is recommended, as this approach can provide a more comprehensive understanding of project impact over time (GaarderAnnan2010; Rogers, 2014).

To provide a clearer overview of the challenges encountered during this research, Table 6.1 summarises the main limitations. For each, it outlines the associated risk, its potential impact on the study, and proposed strategies to mitigate them in future work.

Limitation	Risk	Mitigation Strategy
Fieldwork Inexperience	Misinterpretation of cultural context; shallow insights	Engage in cultural briefings; involve local facilitators throughout the process
Confirmation Bias	Selective interpretation of feedback	Use predefined coding rules; consult external peers during analysis
Limited Expert Engagement	Narrow range of perspectives	Extend outreach period; involve additional stakeholders in future rounds
Restricted Geographic Scope	Limited generalisability across settings	Conduct additional testing in diverse regions and organisational contexts
Lack of Female Participants	Gaps in gender-related evidence	Include women in future testing; validate gender-sensitive questions separately
Use of Coordinator-Translators	Response bias due to authority dynamics	Involve neutral translators; offer anonymous response options where feasible
Contextual Misalignment with CHAKO Model	Findings may not reflect typical entrepreneurial processes	Prioritise contexts where participants manage the full cycle of production and marketing
Generic Tool Design	Limited depth for specialised sectors	Develop sector-specific modules or supplementary indicators
Reliance on Self-Reported Data	Risk of optimism bias, recall errors, or social desirability	Where possible, triangulate with external records or direct observation
Timing and Recall Bias	Results may capture only immediate outcomes or be affected by memory constraints	Clearly document timing; consider repeat assessments after 6–12 months; adapt weightings to reflect expected pace of change

Table 6.1: Summary of limitations, associated risks, and proposed mitigation strategies

6.4. Presentation of the Final Framework

[h] In the following pages, part of the final Version 1 of the framework is presented, incorporating the modifications made after testing. The complete version is presented at the end of the research. Please note that the design is not the main focus of this work.

GUIDELINES

The framework consists of 30 questions covering different aspects of participants' experience. It is essential to answer each question honestly and without fear of judgement, as there are no right or wrong responses. If an interviewer is present, they should create a friendly and respectful environment to help respondents feel at ease. To improve the reliability of results, it is advised to involve multiple participants whenever possible, so that different perspectives can be compared and a more balanced understanding of the project's impact can be achieved. Keep in mind that the timing of the assessment strongly influences results. Measurements soon after project completion are likely to capture early changes, while later assessments may reflect more sustained effects but can also be affected by recall bias or attribution errors. Because there is no single definition of when a change becomes an "impact" rather than an "outcome," it is essential to clearly document when data were collected and interpret results accordingly. Where possible, combining an initial assessment with a follow-up after 6–12 months is recommended to gain a more complete picture.

How to complete the framework

There are five impact areas to be assessed, listed here in alphabetical order: Economic Wellbeing, Employment, Empowerment, Skill Development, and Social Inclusion.

For each impact area, you will find a set of questions and corresponding answer options.

The process is as follows:

1. Read the question carefully to the respondent.

2. Record the "Raw score" based on the selected answer option.

Example:

Question: "Compared to before the project, to what extent do you feel economically independent?"

Answer options:

1 = Much less independent

2 = Slightly less independent

3 = About the same

4 = Slightly more independent

5 = Much more independent

If the respondent feels "Much less independent", you will record an Answer Score of 1.

3. Complete the "Score" column.

The way you assign this value depends on the type of question:

- If the question has 5 answer options, refer to *Table 1* showing how to convert the raw score to a normalised value.
- If the question has 3 answer options ("Yes", "No" and "Prefer not to answer"), refer to *Table 2*.

Response	Score
1	0
2	0.25
3	0.5
4	0.75
5	1

Table 1

Question	Score
No	1
Prefer not to answer	0.5
Yes	0

Table 2

0.00 - 0.19	Strong negative impact
0.20 - 0.39	Mild negative impact
0.40 - 0.59	No significant impact
0.60 - 0.79	Moderate positive impact
0.80 - 1.00	Strong positive impact

Table 3

Area of impact	Suggested weight
Skill Development	0.24
Empowerment	0.22
Social Inclusion	0.21
Economic Wellbeing	0.16
Employment	0.16

Table 4

4. Identifying comparison questions

Questions with a light-blue background are scored directly. If there is no background, compare the response to the related "before" question and subtract the earlier score from the later one.

5. Calculating the impact area score

Average all scores shown in the light-blue boxes to get the final score for each impact area.

6. Interpreting impact area results

Use Table 3 to interpret each area's final score.

7. Calculating the overall impact score

Multiply each impact area score by its chosen weight. Make sure the weights add up to 1. You can use the suggested weights in Table 4 or define your own. Sum all weighted scores to get the overall result. The final value will range between 0 and 1.

8. Interpreting the final result

Refer again to Table 3 to interpret the overall impact level.

IMPACT ASSESSMENT

Name: Date:

ECONOMIC WELLBEING

! The following questions aim to provide a better understanding of general living conditions. They serve as indirect indicators to help estimate the overall level of household income.

Question	Answer Options	Answer Code	Score	Delta
Compared to before the project, how do you think your average monthly salary has changed?	1 = Significantly decreased ; 2 = Slightly decreased ; 3 = No change; 4 = Slightly increased ; 5 = Significantly increased			
Did your household have running water before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Does your household have running water after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Did your household have a refrigerator before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Does your household have a refrigerator after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Did you have a smartphone before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Do you have a smartphone after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
What was the main material of the roof before the project?	1 = Mud/grass; 2 = Leaves/bamboo; 3 = Timber; 4 = Cement; 5 = Concrete or Tiles			
What is the main material of the roof after the project?	1 = Mud/grass; 2 = Leaves/bamboo; 3 = Timber; 4 = Cement; 5 = Concrete or Tiles			
What was the main material of the floor before the project?	1 = Earth; 2 = Timber; 3 = Other; 4 = Cement; 5 = Concrete or Tiles			
What is the main material of the floor after the project?	1 = Earth; 2 = Timber; 3 = Other; 4 = Cement; 5 = Concrete or Tiles			
How many children (under 17) lived in your house before the project?	1 = Four or more; 2 = Three; 3 = Two; 4 = One; 5 = None			
How many children (under 17) live in your house now?	1 = Four or more; 2 = Three; 3 = Two; 4 = One; 5 = None			
Were you renting a house before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Are you renting a house after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Compared to before the project, how able do you feel to afford your basic needs?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able			
Compared to before the project, to what extent do you feel economically independent?	1 = Much less independent; 2 = Slightly less independent; 3 = About the same; 4 = Slightly more independent; 5 = Much more independent			
Average				

SKILL DEVELOPMENT

Question	Answer Options	Answer Code	Score
To what extent do you feel you have learned new information useful for your work or job since the beginning of the project?	1 = Not at all; 2 = A little; 3 = I don't know / Not sure; 4 = Somewhat; 5 = A lot		
Have you applied the knowledge you gained in the project in your daily life?	1 = No; 2 = Prefer not to answer; 3 = Yes		
How much do you feel you have learned from interacting with people from a different culture?	1 = Not at all; 2 = A little; I don't know / Not sur; 4 = Somewhat; 5 = A lot		
Average			

EMPLOYMENT

Question	Answer Option	Answer Code	Score
Compared to before the project, how stable do you feel your job or employment situation is?	1 = Much less stable; 2 = Slightly less stable; 3 = About the same; 4 = Slightly more stable; 5 = Much more stable		
Compared to before the project, to what extent do you feel able to hire or support additional workers in your business or activity?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Compared to before the project, how much has your level of production changed?	1 = Much lower; 2 = Slightly lower; 3 = About the same; 4 = Slightly higher; 5 = Much higher		
Average			

SOCIAL INCLUSION

Question	Answer Option	Answer Code	Score
Compared to before the project, how important do you feel your role within your family is now?	1 = Much less important; 2 = Slightly less important; 3 = About the same; 4 = Slightly more important; 5 = Much more important		
Compared to before the project, how important do you feel your role within your community is now?	1 = Much less important; 2 = Slightly less important; 3 = About the same; 4 = Slightly more important; 5 = Much more important		
Compared to before the project, how accepted by society for who you are do you feel now?	1 = Much less accepted; 2 = Slightly less accepted; 3 = About the same; 4 = Slightly more accepted; 5 = Much more accepted		
Average			

EMPOWERMENT

Question	Answer Option	Answer Code	Score
Compared to before the project, how do you think your level of confidence is now?	1 = Much lower; 2 = Slightly lower; 3 = About the same; 4 = Slightly higher; 5 = Much higher		
Compared to before the project, to what extent do you feel you are able to make important decisions that affect your personal life?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Compared to before the project, to what extent do you feel you are able to make important decisions related to your work?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Compared to before the project, to what extent do you feel positive about your future?	1 = Much less positive than before; 2 = Less positive than before ; 3 = No change; 4 = More positive than before; 5 = Much more positive than before		
Before the project, did you have the right to sell, rent out, or give away the mats or the bed?	1 = No; 2 = Yes, jointly with other household members; 3 = Prefer not to answer; 4 = Yes, jointly with spouse; 5 = Yes, alone		
After the project, do you have the right to sell, rent out, or give away the mats or the bed?	1 = No; 2 = Yes, jointly with other household members; 3 = Prefer not to answer; 4 = Yes, jointly with spouse; 5 = Yes, alone		
Average			

Please respond to these questions only if you, or the individual being interviewed, identifies as female.

Now that you have completed all the questions, you should have the average score for each area of impact.

How to calculate the final score:

Multiply each area's average score by its assigned weight, then add all the weighted scores to get the overall value. The suggested weights are provided in Table 5.

Finally, use Table 4 to interpret the final score.

On the right, you will find a visual guide to help you complete this step.

Enter:

AvG score Economic Wellbeing: ____

AvG score Skill Development: ____

AvG score Employment: ____

AvG score Social Inclusion: ____

AvG score Empowerment: ____

Selected weight for Economic Wellbeing: ____

Selected weight for Skill Development: ____

Selected weight for Employment: ____

Selected weight for Social Inclusion: ____

Selected weight for Empowerment: ____

$$\text{Final Score} = (\text{Avg Economic Wellbeing} \times \text{Weight Economic Wellbeing}) + (\text{Avg Skill Development} \times \text{Weight Skill Development}) + (\text{Avg Employment} \times \text{Weight Employment}) + (\text{Avg Social Inclusion} \times \text{Weight Social Inclusion}) + (\text{Avg Empowerment} \times \text{Weight Empowerment})$$

Final Score: _____

Interpretation: _____

Conclusion

This thesis set out to address the challenge of evaluating the socio-economic impact of small-scale entrepreneurship initiatives in Tanzania. While such projects are widely promoted as strategies to strengthen local development and reduce poverty, there are no tools specifically designed to measure their socio-economic effects in ways that fit their context and characteristics.

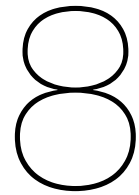
The main aim of this research was to create a framework that combines structured measurement with enough flexibility to be adapted to informal settings and limited resources. To reach this aim, the study drew on several sources: a two-phase literature review to identify and organise relevant areas of impact, interviews with twelve experts and fourteen project participants, and two rounds of field testing in Misungwi and Zanzibar with two local organisations. The resulting framework assesses five areas of impact: Economic Wellbeing, Employment, Empowerment, Skill Development, and Social Inclusion. Each area is measured through closed-ended questions with clear scoring rules and a weighting system that can be adjusted to different priorities or project goals. For each assessment, the framework provides a result for every impact area and an overall final score. The tool is available in two languages and four versions, allowing it to be used both after project completion or in pre- and post-assessments.

Field testing showed that the questions were generally clear for participants and could be used effectively in real project conditions. Local organisations expressed interest in adopting the framework to strengthen their own monitoring practices. A digital version was also developed to help automate scoring and visualise results more easily. This work makes several contributions. First, it offers a structured way to evaluate small-scale entrepreneurship projects where standard tools are not always suitable. Second, it demonstrates that clear, standardised indicators can be used in informal contexts without losing relevance for those involved. Third, it underlines the value of a flexible design that lets users adapt weights and timing to capture change in a way that matches their objectives.

At the same time, it is important to acknowledge the study's limitations. The framework was tested in only two locations, with a small number of respondents and no female participants during the final fieldwork. It relies on self-reported data, which can be affected by memory errors and optimism bias. Also, while the framework covers multiple dimensions, it does not yet include sector-specific indicators that could be important in more specialised projects.

Despite these constraints, this framework is an initial step toward more systematic and context-aware evaluation of small-scale entrepreneurship.

Looking forward, there are several ways to build on this work. Future applications should test the framework in other regions and organisations to see how well it can be adapted. Further versions could also include more detailed indicators for specific fields like digital skills or renewable energy. Over time, collecting and comparing results could help identify patterns and learn which approaches have the strongest effects. On a personal note, this project has strengthened the belief that applied research, when combined with direct field engagement and continuous refinement, can help address complex development challenges in a concrete way.



Reflections

8.1. Societal and Managerial Reflection

This research responds to a concrete societal challenge: the absence of evaluation tools that are both simple and rigorous enough to assess the effects of small-scale entrepreneurship projects in low-income settings. These initiatives are widely promoted for their potential to enhance livelihoods and foster local development. However, their outcomes are rarely assessed systematically. As a result, successful approaches often remain undocumented, lessons learned are not shared, and opportunities for scaling or replication are lost.

The framework presented in this research contributes to addressing this gap by offering a structured and adaptable tool that can be applied without requiring advanced technical resources. Its design considers the operational realities of organisations working with limited budgets, time, and specialised staff. By combining closed-ended questions with automated scoring and interpretation, the tool enables managers to create regular feedback processes that support evidence-informed adjustments during and after project implementation.

For practitioners and implementing partners, this instrument provides a means to strengthen internal accountability, communicate progress to funders and communities, and align activities more closely with their objectives. Importantly, it makes it feasible to track dimensions that are often overlooked, such as empowerment and social inclusion, broadening the understanding of what constitutes meaningful development outcomes.

At the societal level, the framework can help shift evaluation practices from anecdotal reporting towards a culture of measurement and reflection, even in projects of modest scale. By capturing voices and perspectives that are frequently underrepresented, it contributes to more inclusive and participatory development practice. In this way, it supports both practitioners and beneficiaries in recognising and articulating change in ways that are systematic, comparable, and credible.

8.2. Academic Reflection

From an academic standpoint, this work engages with debates about how to measure socio-economic impact in development studies, entrepreneurship research, and evaluation science. Many frameworks for impact assessment exist, but none are explicitly designed to address the constraints and characteristics of small-scale projects operating in low-resource environments. This research contributes by proposing an approach that is conceptually robust, operationally feasible, and sensitive to contextual realities. Methodologically, the study demonstrates the value of combining literature review, expert consultation, and field-based testing in an iterative design process. The criteria used to identify and prioritise indicators, including relevance to project objectives, clarity for respondents, and feasibility of administration, reflect an intentional effort to balance conceptual precision with usability. This process illustrates that rigorous measurement does not necessarily come at the expense of accessibility, a point that is often underestimated in the evaluation literature. The project also benefited substantially from academic training in research methods. The use of qualitative coding techniques made it possible to synthesise expert interviews and open-ended participant feedback, while operationalisation principles guided the construction of closed-ended questions that are both valid and reliable. This

combination of methodological tools supported the development of a framework that is grounded in theory and applicable in practice. Beyond the framework itself, this research highlights the importance of adopting socio-technical perspectives when assessing impact. The findings show that the impact of entrepreneurship projects are shaped not only by economic variables but also by factors such as empowerment, confidence, and community acceptance. This broader perspective contributes to academic debates about how to define and measure impact in ways that are scientifically rigorous and socially relevant.

Overall, this thesis demonstrates that context-aware and participatory approaches to evaluation can generate insights that are both academically valuable and practically useful. The framework presented here can serve as a foundation for further research and refinement, supporting a more systematic understanding of small-scale entrepreneurship as a pathway to inclusive development.

8.3. Personal Reflection

This research has been an enriching and deeply interesting experience, both professionally and personally. One of the main challenges I faced was collecting data from multiple sources and methods. The literature review was not always straightforward, as there were no publications focusing exclusively on Tanzania and only limited material addressing small-scale entrepreneurship projects in this context. As a result, identifying relevant documents required considerable effort and time.

In addition to the literature review, I conducted expert interviews to strengthen and refine the framework. This phase also presented difficulties. I contacted around sixty potential interviewees via email, but only twelve were available and willing to participate. This limited response was partly due to the tight timeline I was working within: I needed to complete the interviews before leaving for Tanzania so that I could finalize the prototype in time for field testing. Although I could have expanded the outreach further, the deadlines made it challenging to engage more experts.

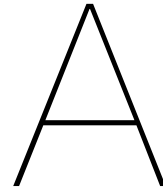
Preparing the one-month field trip to Tanzania itself was also time-consuming, as it required coordinating logistics, accommodations, and local contacts. Nevertheless, once in Tanzania, collecting data went relatively smoothly. I was fortunate to receive significant support from local partners, who helped me arrange interviews and introduced me to participants. This collaboration was essential to creating an environment in which respondents felt comfortable enough to share their experiences. Despite the earlier obstacles, I am grateful that the fieldwork was a constructive process and provided valuable insights to enrich this research.

Use of AI Tools

During the development of this thesis, I made use of Artificial Intelligence (AI) tools to support certain phases of the writing and editing process. In particular, AI was employed for the following purposes:

- **Text Structuring and Editing:** AI was used to improve the clarity and coherence of some sections, suggesting ways to rephrase or reorganise sentences while maintaining the original meaning and arguments.
- **Grammar and Style Checks:** Automated tools were applied to review grammar, spelling, and language consistency across the document.
- **LaTeX Support:** AI assistance was used to generate LaTeX code for formatting tables, creating lists of abbreviations, and ensuring the correct use of commands and packages.
- **Table Creation:** AI helped prepare and adapt LaTeX tables to present data and frameworks clearly, based on content and structure defined by me.

All substantive ideas, research content, and analytical decisions remain my own. AI tools were used solely to support the expression and technical presentation of the work. Every output generated by AI was reviewed, adapted, and approved before inclusion in the final version of the thesis.



Appendix A

A.1. The ten frameworks provided by the WBCSD

1. **Base of the Pyramid Impact Assessment Framework (London, 2009)** This qualitative tool is aimed at assessing the effects of businesses operating at the “base of the pyramid,” referring to low-income communities. It uses a matrix that cross-references stakeholder groups (e.g., local buyers, suppliers, communities) with areas of impact (such as economic well-being or capabilities). Businesses are asked to estimate both the likelihood and the magnitude of each potential effect and define appropriate indicators accordingly (London, 2009).
2. **GEMI Metrics Navigator (GEMI, 2007)** Developed by the Global Environmental Management Initiative, this is a strategic planning tool that helps companies design and manage performance indicators. It follows a six-step methodology covering the creation, application, and review of metrics. While it does not offer pre-made indicators or data collection methods, it includes worksheets, examples, and case studies to help guide implementation (Global Environmental Management Initiative (GEMI), 2007).
3. **Impact Measurement Framework (Initiative for Global Development)** This model targets four business areas—agriculture, energy, finance, and ICT—and connects them to four performance drivers: growth, efficiency, responsible operations, and improved business environments. Each driver is linked to concrete indicators, such as training investments or increased service access. The framework is adaptable in scale and can be applied to entire companies or specific regions or sectors.
4. **IRIS (Impact Reporting and Investment Standards)** Created by the Global Impact Investing Network, IRIS offers a catalog of standardized metrics across fields like education, energy, agriculture, and healthcare. It’s widely adopted by the impact investment sector and promotes consistency in how results are tracked and communicated.
5. **MDG Scan (NCDO)** This tool was designed to map business activities to the Millennium Development Goals (MDGs). However, it has become outdated since the transition to the Sustainable Development Goals (SDGs), and it is no longer available to the public (United Nations Development Group, 2003).
6. **Measuring Impact Framework (WBCSD)** The WBCSD’s own framework offers a structured approach to evaluating corporate social performance. It includes steps such as scoping the assessment, measuring both direct and indirect effects, and aligning the findings with development priorities. It is specifically tailored to help businesses embed social considerations into their strategy (World Business Council for Sustainable Development, 2008).
7. **Poverty Footprint (Oxfam)** This framework focuses on the relationship between business operations and poverty. It evaluates five dimensions across five operational areas and is aligned with the SDGs. A central feature of the approach is its participatory nature, with strong emphasis on

topics like fair wages, workers' rights, and value distribution (United Nations Global Compact & Oxfam International, 2015).

8. **Progress out of Poverty Index (Grameen / IPA)** Now known as the Poverty Probability Index (PPI), this tool helps estimate the likelihood that a household lives below the poverty line using a set of ten simple country-specific questions. The indicators are designed for data-driven poverty tracking and are widely used in microfinance and development programs. Access to the tool is granted upon request. For this research, the version tailored for Tanzania was obtained and used.
9. **SEAT (Socio-Economic Assessment Toolbox, Anglo American)** Initially created for use in the mining sector, SEAT supports companies operating in large sites. It guides users through phases like community profiling, impact assessment, planning, and reporting. The toolbox includes practical templates, checklists, and example metrics (Anglo American plc, 2003).
10. **Input-Output Modeling (Leontief)** This economic modeling approach estimates how spending in one sector affects others. It's particularly useful for calculating job creation or added economic value. The model requires sector-specific data and is most often carried out by specialists or consultants due to its complexity (Miller & Blair, 2009).

A.2. Distribution of indicators per method

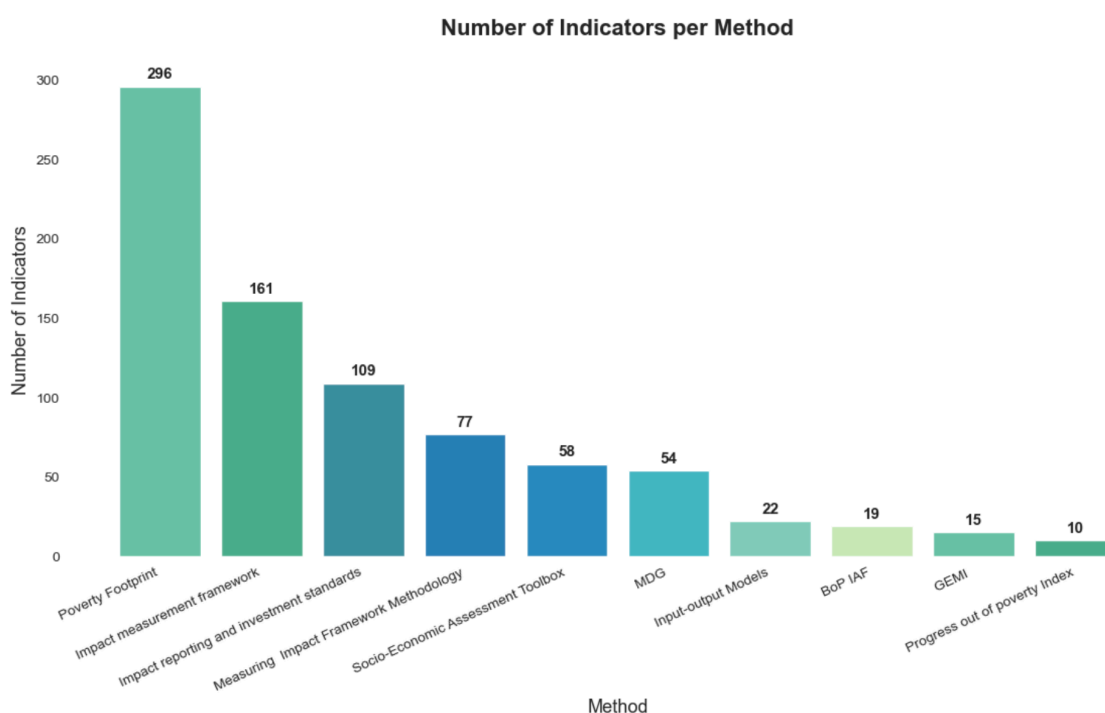


Figure A.1: Number of Indicators per Method

A.3. Codes for the Steps

```

keywords_to_exclude_step1 = [
    "gdp", "gni", "national", "regional", "country level", "international",
    "macroeconomic", "global", "fiscal", "public spending", "government spending",
    "state budget", "regulation", "tax", "inflation", "monetary", "import", "export",
    "exchange rate", "foreign direct investment", "debt", "national policy",
    "national accounts", "aggregated", "cross-country", "financial sector",
    "banking system", "central bank", "capital formation", "foreign aid",
    "global economy"
]

keywords_to_exclude_step2 = [
    "life expectancy", "child mortality", "maternal mortality", "morbidity",
    "epidemiology", "macroeconomic", "statistical modeling", "data modeling",
    "forecasting", "complex algorithm", "scientific survey", "longitudinal",
    "compliance audit", "national survey", "clinical diagnosis", "fiscal simulation",
    "remote sensing", "high-frequency data", "inpatient", "hospital admission",
    "healthcare infrastructure", "econometric", "quantitative model",
    "academic attainment", "satellite data", "policy analysis", "compliance rate",
    "laboratory-confirmed", "regression model", "sampling frame", "non-
local source",
    "multi-country", "standardized test score", "formal census", "bioindicator",
    "structured interview", "institutional data"
]

keywords_to_exclude_step3 = [
    "carbon", "co2", "emissions", "pollution", "waste", "greenhouse gas",
    "air quality", "biodiversity", "conservation", "climate change", "ozone",
    "ecosystem", "environmental protection", "natural resource", "deforestation",
    "reforestation", "ecological footprint", "soil quality", "water quality", "toxic",
    "contaminant", "hazardous", "chemical", "recycling", "renewable energy",
    "non-renewable", "energy efficiency", "fossil fuel", "climatic condition",
    "environmental degradation", "sea level", "melting ice", "habitat loss", "marine",
    "geophysical", "meteorological", "sustainability index", "environmental index",
    "solar radiation", "temperature anomaly", "pesticide", "green index",
    "carbon sequestration"
]

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Table A.1: Indicators and Areas of Impact – First step of the Literature Review

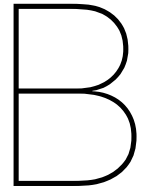
Area of Impact	Indicator
Economic and Financial Conditions	Average salary level
	Changes in household income levels
	Total wages and salaries generated by the economic activity
Education	Investment in educational assistance
	Quality of educational assistance
	Skill development and access to training
	Integration of financial literacy education
Empowerment	Employee satisfaction and empowerment
	Literacy of female head or spouse
	Proportion of female smallholder clients
	Increased confidence or self-esteem
	Agency in decision-making
	Perceived adequacy of training opportunities
Employment	Percentage of skilled workers
	Employee turnover
	Social stability or tensions due to employment practices
	Employment status of program recipients
	Number of SME client organizations supporting jobs
	Percent change in jobs supported by SME clients
	Employment conditions at SME client organizations
	Products or services offered to female clients
	Job placements
	Employees earning a living wage or better
	Average training investment per worker per year
	Average extension services investment per smallholder per year
	Perception of merit-based promotions
	Total volume of sales and distribution
	Job creation or loss
	Changes in economic productivity
	Changes in daily functioning
	Employee retention index
	Contribution to local economic development
	Spending on public services
	Total employment

Area of Impact	Indicator
	Value-added per unit of final demand
Health	Improvements in health status
House	Roof material of main dwelling
	Floor material of main dwelling
	Changes in household assets or liabilities
	Ownership of bicycles or motor vehicles
	Ownership of radios
	Ownership of lanterns
	Ownership of irons
	Number of tables owned
	Access to transport
	Energy sources used
	Access to running water
	Ownership of refrigerator
Social Inclusion	Number of community complaints
	Community perception
	School attendance of children aged 6–17
	Social inclusion or exclusion
	Status within family or community
	Access to peer networks or support groups

Table A.2: Indicators and Areas of Impact – Second step of the Literature Review

Area of Impact	Indicator
Education	Expected years of schooling
	Mean years of schooling
Employment	Financial disincentive to return to work
	Financial disincentive to increase working hours
	Benefits in unemployment, share of previous income
	Working age population
	Unit labour costs
	Labour compensation per hour worked
	Labour force
	Incidence of low and high pay
	Hours worked
	Employment by activity
	Gender wage gap
	Employment by education level
Economy	Household debt
	Household disposable income
	Household financial assets
	Household net worth
	Household savings
	Household spending
	Purchasing power parities (PPP)
	Value added by activity
Health	Malaria cases reported
	Health spending
	Life expectancy at birth
Social Protection and Labour	Employment in industry, female (% of female employment) (modeled ILO estimate)
	Labor force participation rate for ages 15–24, total (%) (modeled ILO estimate)
	Labor force with advanced education (% of total working-age population with advanced education)
	Labor force with basic education (% of total working-age population with basic education)
Society	Working hours needed to exit poverty
	Working age population

Area of Impact	Indicator
	Public unemployment spending
	Running a business
	Self-employment by activity
	Social spending
	Gender wage gap



Appendix B

B.1. Experts Interviewed

Minor Coordinators

This group includes professors and coordinators from the TU Delft minor “International Entrepreneurship and Development.” They have been involved in the programme for several years and have experience working with small-scale entrepreneurship projects. They are particularly relevant because there is an interest in using the framework in future editions of the minor. I selected the ones who have been involved in the programme the longest.

External Professors

These are professors from universities in the Netherlands, Ghana, Tanzania, and Canada, with expertise in development, impact assessment, and entrepreneurship in the Global South. I contacted them via the African Studies Centre Leiden, selecting those who had worked in Tanzania and on topics related to my research. I wanted to include the perspective of experts outside the minor to complement the internal views.

Local Coordinators

By local coordinators, I refer to professionals who have worked for years in the two Tanzanian organisations that host the minor’s projects: YEPTanzania and CHAKO. Their input is important because they see the impact of these projects on a regular basis and could be among those interested in using the framework.

Embassy Contact

This expert works for the Dutch Embassy in Tanzania and is currently researching the impact of Dutch NGOs in the country. His broader overview and experience in evaluating NGO initiatives make his input useful for this study.

Funding Association

This is an organisation that funds student projects and other initiatives in the Global South. They are also interested in the framework to help assess which projects to support in the future. Since they have worked with several projects from the minor or similar ones, they can provide a broader view of what makes a project impactful.

B.2. Power-Interest Matrix

To support a clearer understanding of the stakeholder landscape, Figure B.1 presents a Power–Interest Matrix. This strategic tool is commonly used to categorise stakeholders according to their level of influence (power) over a project and their degree of interest in its outcomes. It helps determine the most appropriate engagement strategies for each group (Eden & Ackermann, 1991).

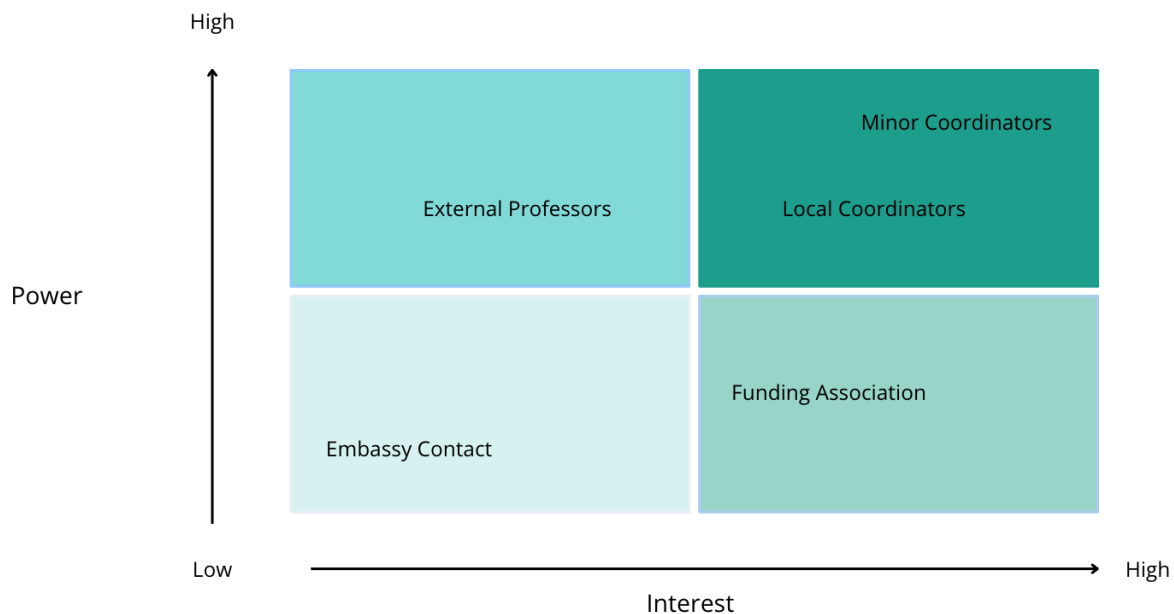


Figure B.1: Power Interest grid of the Stakeholders

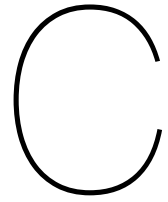
Minor Coordinators were placed in the high-power, high-interest quadrant, as they are both likely to adopt the framework in future editions of the minor and capable of shaping its integration into the programme. Their long-term involvement with the minor and direct engagement with small-scale entrepreneurship projects justify this central positioning.

Local Coordinators, who work for the Tanzanian organisations hosting the student projects, were also placed in the high-power, high-interest quadrant. Although external to the university, they play a crucial role in shaping the experience and outcomes of the projects on the ground. Their practical experience and frequent contact with the communities involved make them both relevant users and critical validators of the framework.

External Professors were placed in the high-power but lower-interest quadrant. Their academic expertise and strong track record in impact measurement and development make their feedback particularly valuable, but since they are not directly involved in the minor, their personal motivation to use the framework may be more limited.

The Funding Association was positioned in the high-interest, lower-power quadrant. While they have limited influence over the design of the framework, they expressed interest in using it to evaluate project proposals and outcomes, which indicates a practical need for such a tool.

Finally, the Embassy Contact was placed in the low-power, low-interest quadrant. While their insight into the broader impact of Dutch initiatives in Tanzania was helpful for contextual understanding, they are not expected to directly use or influence the implementation of the framework.



Appendix C

C.1. Questions- Expert Interview

Hello, my name is Margherita Andorno, and I am a master's student at TU Delft. I am currently working on my thesis, which focuses on developing a framework to measure the socio-economic impact of small-scale entrepreneurship projects in Tanzania. This research stems from the observation that, despite the growing number of such initiatives, there is still a lack of practical and accessible tools to evaluate their impact, particularly in local contexts where data may be limited. I'm interviewing a number of experts in the fields of development, entrepreneurship, and impact assessment, and I believe that your experience and perspective can offer valuable contributions to this work. I will now ask you a few questions that focus on the potential social and economic impacts of these projects, how such impacts can be measured, and what features you believe an effective assessment framework should include.

1. What kind of social impact do you expect small-scale entrepreneurship projects to have?
2. What indicators would you use to measure this social impact?
3. What kind of economic impact do you expect small-scale entrepreneurship projects to have?
4. What indicators would you use to measure this economic impact?
- 5a. (For experts involved in the minor) How do you currently evaluate whether a project developed by students from the "International Entrepreneurship and Development" minor has created meaningful impact?
- 5b. (For experts not involved in the minor) How would you evaluate whether a small-scale entrepreneurship project has created meaningful impact?
- 6 What, in your opinion, are the key characteristics of a good socio-economic impact assessment framework for small-scale entrepreneurship projects?

C.2. Interview Questions – CHAKO and YEP Tanzania

English Version

Hello, my name is Margherita Andorno. I am from Italy and currently pursuing my studies in the Netherlands at TU Delft. I am conducting research for my master's thesis, and I am here to better understand the impact of the entrepreneurship projects you have participated in.

Please feel free to stop the interview at any point if anything is unclear or if you don't feel comfortable continuing. I will ask the questions in English, and the translator will translate them into Swahili.

Only the translator and I will hear your answers, and they will be used for research purposes only. You will not be personally identified in any part of the research, all answers will be anonymized.

If there are any questions you do not wish to answer, you are free to skip them.

1. How important do you consider each of the following areas?

Please answer on a scale from 1 (not important) to 5 (very important):

- Social inclusion ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- Empowerment ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- Skill development ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- Economic changes ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- Employment ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

2. Are there any other changes or areas that you think are important, but were not mentioned above?

3. Do you feel comfortable answering questions like the following, or are they too personal or difficult?

Question	Is it clear?	Too personal?
Compared to before the project, how accepted by society for who you are do you feel now?	Yes / No	Yes / No
Compared to before the project, how do you think your level of confidence is now?	Yes / No	Yes / No
What is the main building material of the roof of your house?	Yes / No	Yes / No
How many people under 17 live in your house?	Yes / No	Yes / No
Compared to before the project, to what extent do you feel economically independent?	Yes / No	Yes / No
What is your average income per month?	Yes / No	Yes / No

4. Is there anything else you would like to share or add before we close the interview?

Swahili Version

Habari, jina langu ni Margherita Andorno. Ninatoka Italia na kwa sasa ninasoma Uholanzi katika Chuo Kikuu cha TU Delft. Ninafanya utafiti kwa ajili ya tasnifu yangu ya shahada ya uzamili, na niko hapa kuelewa vyema athari za miradi ya ujasiriamali ambayo umehusika nayo.

Tafadhali jisikie huru kusitisha mahojiano wakati wowote ikiwa kuna jambo halieleweki au hukihisi vizuri kuendelea. Nitauliza maswali kwa Kiingereza, na mkalimani atayatafsiri kwa Kiswahili.

Majibu yako yataskilizwa tu na mimi pamoja na mkalimani, na yatatumika kwa madhumuni ya utafiti pekee. Hutatajwa kwa jina katika sehemu yoyote ya utafiti, na majibu yote yatafanywa kuwa ya siri.

Ikiwa kuna swali ambalo hutaki kulijibu, unaweza kuliruka bila tatizo.

1. Kwa kiwango gani unazingatia maeneo yafuatayo kuwa muhimu?

Tafadhali jibu kwa kutumia kiwango kutoka 1 (siyo muhimu) hadi 5 (muhimu sana):

- Ujumuishaji kijamii ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- Uwezeshaji ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- Kuendeleza ujuzi ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- Mabadiliko ya kiuchumi ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
- Ajira ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

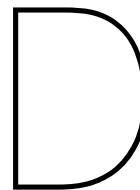
2. Je, kuna mabadiliko mengine au maeneo mengine unayodhani ni muhimu lakini hayakutajwa hapo juu?

3. Je, unajisikia vizuri kujibu maswali kama yafuatayo, au ni ya binafsi mno au magumu?

Swali	Je, linaeleweka?	Je, ni la binafsi mno?
Ikilinganishwa na kabla ya mradi, kwa kiasi gani unahisi umekubalika na jamii kwa jinsi ulivyo?	Ndiyo / Hapana	Ndiyo / Hapana
Ikilinganishwa na kabla ya mradi, unadhani kiwango chako cha kujiamini kikoje sasa?	Ndiyo / Hapana	Ndiyo / Hapana
Je, ni aina gani kuu ya kifuniko cha paa la nyumba yako?	Ndiyo / Hapana	Ndiyo / Hapana
Ni watu wangapi walio chini ya miaka 17 wanaoishi katika nyumba yako?	Ndiyo / Hapana	Ndiyo / Hapana
Ikilinganishwa na kabla ya mradi, kwa kiwango gani unajihisi kuwa huru kiuchumi?	Ndiyo / Hapana	Ndiyo / Hapana
Je, kipato chako cha wastani kwa mwezi ni kiasi gani?	Ndiyo / Hapana	Ndiyo / Hapana

Table C.1: Swahili questions and perception of clarity and sensitivity

4. Kabla hatujamaliza mahojiano, je, kuna jambo lolote la ziada ungependa kushiriki au kuongeza?



Appendix D

D.1. Summary of the Interviews

Participant 1

P1 emphasized that small-scale entrepreneurship projects can generate strong social impact by enabling individuals to become self-sufficient, make their own decisions, and serve as role models for others in their communities. This empowerment contributes to broader community development. Relevant indicators include the ability to live independently, pay rent, travel, provide education for family members, and access healthcare or medicine. Economic impact is closely tied to personal sustainability and the ability to support oneself financially. Since self-reported income can be unreliable, proxy indicators such as the number of clothing items, ability to afford transportation, or attention to personal care can be used. Projects are currently evaluated by directly asking beneficiaries about their satisfaction and needs, rather than relying on fixed metrics. P1 stressed that an effective impact assessment framework should be simple, realistic, and designed for people with limited formal education, focusing on basic needs and easily observable indicators.

Participant 2

P2 described the social impact of small-scale entrepreneurship as significant not only for entrepreneurs but also for the broader local community. Interaction with students introduces new perspectives, improving communication skills and organization, such as time management and English proficiency. These are seen as signs of growing confidence and planning ability. While social indicators are hard to quantify, P2 suggested measuring language skills and punctuality. Economically, projects such as improved irrigation systems can increase crop yield, enhance product quality, and raise income levels, also creating new job opportunities. Useful indicators include income levels, number of employees, production output, and the number of families benefitting. P2 noted that project evaluation is based on direct observation and conversations with local participants, as no standard framework is currently used. A good assessment system, according to P2, should follow SMART criteria, ensuring that indicators are measurable, feasible, and clearly linked to project outcomes.

Participant 3

P3 described both direct and indirect social impacts of small-scale entrepreneurship projects, including increased socialization, confidence, and learning from interaction with students. According to P3, these projects help people develop new habits and attitudes, which are reflected in behavioral changes over time. While the impacts are often subjective and not immediately visible, indicators might include improved hygiene, changes in appearance (such as wearing clean clothes), and greater self-confidence. Economically, projects can lead to increased income and the ability to cover basic needs like food, clothing, or soap. P3 evaluates project impact based on whether specific problems were solved, giving the example of drip irrigation systems that reduced labor time and allowed entrepreneurs to redirect their time towards more productive activities. A meaningful framework, in P3's view, should link impact to problem-solving and tangible improvements in daily life.

Participant 4

P4 emphasized the importance of social inclusion and cohesion as key outcomes of small-scale entrepreneurship. Social impacts are highly context-dependent and can be explored using tools like the World Values Survey to assess trust, inclusion, and social change. P4 also pointed out the challenge of attribution—distinguishing whether outcomes such as improved education for children result from the project or other factors. Economic impact, in P4's view, is closely tied to increased self-confidence and access to resources. An asset-based approach and tools like the Canadian entrepreneur assessment toolkit were mentioned as useful for measuring such changes. P4 assesses project success through student feedback, noting that even frustration can signal valuable learning. A successful framework, according to P4, should incorporate frugal innovation principles and link outcomes to concrete contributions for both students and beneficiaries.

Participant 5

P5 expressed skepticism about the impact of small-scale entrepreneurship projects on communities, emphasizing instead the learning experience for students. From P5's perspective, projects tend to have limited effectiveness in short timeframes, especially when led by students with little experience. Social and economic indicators are seen as highly project-dependent, and P5 stressed that in many cases, impact is primarily measured by how much students engage with stakeholders, reflect on their experiences, and navigate real-world challenges. Economically, P5 noted that even students' spending during fieldwork can benefit local communities, for instance through guesthouses or food. A good assessment framework, in P5's view, should be flexible, consider the temporal nature of impact, and adapt indicators to the type of project. While recognizing some value in tourism-related or demonstration-based initiatives, P5 ultimately sees the primary transformation occurring at the level of the student rather than the community.

Participant 6

P6 highlighted several areas where small-scale entrepreneurship projects can generate social impact, including youth empowerment, education, agriculture and food security, access to water, sanitation and hygiene, and support for people with disabilities and health challenges. These projects contribute indirectly by improving basic conditions that enable individuals, especially young people, to pursue better opportunities in the future. While specific indicators were not listed, P6 stressed the importance of creating stronger foundations in communities—for example, through improved water access—as a way to promote broader economic development. Economically, the projects can have indirect effects on income and raise awareness of local challenges and opportunities. However, evaluating impact is described as difficult, especially when outcomes like education may only become visible in the long term and when there is limited contact with beneficiaries. P6 noted that while these initiatives likely create a positive impact, measuring it reliably remains a challenge. An effective assessment framework, though not explicitly detailed, is implied to require long-term perspective, contextual understanding, and sensitivity to indirect outcomes.

Participant 7

P7 expects the projects they support to generate social impact primarily through empowerment, by equipping people with the tools and skills to address problems independently, and through access to education. These outcomes are seen as central to long-term community development. To measure such social impacts, P7 recommends conducting surveys and interviews both before and after the project, focusing on the specific challenges faced by the community and tracking whether those challenges are addressed over time. Economically, P7 believes the impact lies in helping communities avoid wasteful spending and ensuring that resources are used effectively, even if the project does not generate financial returns. Economic outcomes should be evaluated through open-ended questions that explore the value created by a project and allow flexibility for broader policy implications. P7 also expressed interest in adopting a socio-economic impact assessment framework developed through this research.

Participant 8

P8 sees the main social impact of small-scale entrepreneurship projects in the creation of employment opportunities and the development of new skills. For example, thanks to the activation of a plastic production department, the organization was able to hire over 15 new employees. Many of the workers had no prior knowledge in this area, and the project enabled them to learn how to produce plastic items independently. P8 suggests measuring social impact by tracking the number of people employed and by observing whether individuals have gained specific production skills. On the economic side, the expected impact includes increased sales, improved income, and the ability of workers to support their families by covering basic needs. Indicators include sales trends, the expansion of production facilities, and whether additional staff have been hired. P8 currently evaluates impact mainly through sales performance but noted that limited time for marketing affected results in the past. A good assessment framework, according to P8, should be simple, clear, and able to measure both social and economic impacts, making it easier to understand what works best and where the greatest value lies.

Participant 9

P9 sees the main social impact of small-scale entrepreneurship projects in their ability to drive cultural transition and institutional change, rather than simply increasing income. In the Tanzanian context, this means shifting from a hierarchical, top-down model (System 1) to a more collaborative, structured, and responsible one (System 2). Social entrepreneurship becomes a space for learning how to work, collaborate, and take responsibility. However, challenges persist, such as strong family obligations that may override business goals, and the belief that authority must remain centralized. Indicators of social impact include whether individuals are able to delegate tasks, demonstrate reliability, and shift their mindset towards long-term responsibility and collaboration. P9 emphasizes that skill development should go hand-in-hand with institutional learning, and that real impact occurs when individuals internalize professional values and no longer depend on external support. Economically, P9 sees impact in institutional transformation and responsible economic behavior, rather than just profit or wage increases. Projects that rely on cheap labor or reproduce unsustainable models, such as some Dutch-run flower farms in Kenya, are not seen as positive examples. Evaluation should happen early, as impact risks fading over time if not consolidated. A good assessment framework, according to P9, must be rooted in qualitative indicators that capture changes in values, collaboration, and institutional practices. It should be able to analyze how trust, responsibility, and professionalism are developing, using tools like stakeholder analysis and multi-level assessments of civil society and institutional structures.

Participant 10

P10 described the socio-economic impact of small-scale entrepreneurship projects as multi-dimensional, involving social, economic, and environmental aspects. These impacts can be observed either separately or as embedded within one another. On the social side, P10 emphasized factors such as social return on investment, social cohesion, education, women's participation, improved household livelihoods, and access to healthcare. Observable changes include increased purchasing power, the ability to afford clothing, build or roof houses, and improve social status. The projects may also affect community health and sanitation, and in some cases, contribute to environmental goals like reducing CO₂ emissions. To measure these outcomes, P10 suggests using before-and-after comparisons, complemented by rankings and indicators drawn from existing literature on social cohesion. Economically, P10 expects benefits in terms of increased employability, higher income levels, better access to food and shelter, and more financial autonomy for women. Indicators include changes in access to jobs, the ability to afford school fees or medicine, and improved access to financial institutions and loans. Impact evaluation should involve both qualitative and quantitative methods, including open-ended questions to assess perceived improvements. According to P10, a robust assessment framework must be context-specific and able to justify its findings clearly. While current approaches may lack strong scientific grounding, the framework should prioritize practicality and relevance to the local setting.

Participant 11

P11 highlighted that small-scale entrepreneurship projects create social impact by enabling learning and skills development for both students and local stakeholders. These interactions foster entrepreneurial thinking and contribute to human capital formation through education and collaboration. In cases where students work with business incubators or build prototypes in the community, they also

raise awareness and inspire others beyond purely economic effects. P11 suggests assessing social impact by evaluating what stakeholders have learned and how their perceptions have changed. Economically, the projects are expected to support income generation and efficiency. For example, in Sierra Leone, students introduced machines to process palm nuts, reducing manual labor and increasing productivity. The combination of technology and entrepreneurship education plays a central role, especially when students support locals in operating and maintaining equipment. Economic indicators include income growth and time saved, with the idea that time gained can be reinvested productively. To evaluate project outcomes, P11 uses an impact pathway approach and emphasizes the importance of monitoring skill development among stakeholders. A good impact assessment framework, in P11's view, should be flexible, applicable across sectors such as agriculture, health, education, and waste management, and co-created with the people directly affected. It should also be time-efficient and robust enough to provide credible validation of its results.

Participant 12

P12 emphasized that small-scale entrepreneurship projects can lead to a range of social transformations, particularly in enhancing confidence, communication skills, and problem-solving abilities within the community. According to P12, one of the most valuable outcomes is that individuals begin to see themselves as capable of initiating change, even with limited resources. The projects also foster stronger relationships between participants, students, and local stakeholders, which contributes to social cohesion. To measure these effects, P12 would use a mix of qualitative methods such as interviews and reflection sessions, focusing on perceived changes in behavior, initiative-taking, and collaboration. Economically, P12 pointed out that while direct income gains might take time, early signs of impact often come through improved resource use, small increases in household revenue, or the creation of informal jobs. For example, beneficiaries may start offering small services or reselling products made using newly introduced tools. Useful indicators would include household income trends, frequency of economic activity, and the number of people involved in income-generating tasks. When evaluating the overall success of a project, P12 looks at how ideas and tools are sustained or adapted after students leave, considering long-term potential more than short-term success. A good socio-economic impact framework, P12 believes, should combine measurable indicators with qualitative stories, remain adaptable across different community contexts, and support both accountability and learning.

D.2. Interview Coding Tables for Q1,Q2,Q3,Q4

Table D.1: Interview Coding Summary – P1

Impact Area	Indicator	Literal source text
Empowerment	Independent decision-making, Problem solving skills	Ability to travel, live away from the family.
Social Inclusion	Status in the community	Becoming a role model fo the community
Economic Wellbeing	Income, Financial independence	Proxies like number of clothing items, ability to afford transportation, attention to personal care can be used for women the cut of their hair. Regarding income possible to try tanzania schellins for month.

Table D.2: Interview Coding Summary – P2

Impact Area	Indicator	Literal source text
Education	Knowledge or skills acquired, Cultural exchange	They developed skills, got better at planning, and their English is improving.
Employment	Job creation, Production output	Now they can do more harvests and employ more people
Economic Wellbeing	Income	Salary per month can increase

Table D.3: Interview Coding Summary – P3

Impact Area	Indicator	Literal source text
Social inclusion	Perception of social inclusion	People affected feel more included in the society having a job.
Empowerment	Confidence	You can see the confidence on how their behavior change.
Education	Knowledge or skills acquired, Cultural exchange	Learning from students way of working but also knowledge about how to conduct a business.
Economic Wellbeing	Basic needs coverage	Wearing clean clothes, affording soap, looking less stressed...

Table D.4: Interview Coding Summary – P4

Impact Area	Indicator	Literal source text
Social inclusion	Perception of social inclusion	"To stimulate the perception of inclusion at the local level"
Education	Knowledge or skills acquired, Cultural exchange	"They learn useful skills for their work and gain exposure to new cultures, ways of thinking, and working."

Economic Wellbeing	Asset ownership	Asset approach (for income)
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Table D.5: Interview Coding Summary – P5

Impact Area	Indicator	Literal source text
No impact	No indicators	"I don't think that these projects can bring impact"
Economic Wellbeing	Income	Students spend money in the local community (guesthouses, food)...

Table D.6: Interview Coding Summary – P6

Impact Area	Indicator	Literal source text
Education	Knowledge or skills acquired, Cultural exchange	They learn useful skills for their work and gain exposure to new cultures, ways of thinking, and working
Economic Wellbeing	Income	For example new machines can help them save time and increase income.

Table D.7: Interview Coding Summary – P7

Impact Area	Indicator	Literal source text
Empowerment	Problem-solving skills	They improve their ability to solve the problem themselves.
Economic Wellbeing	Income	Increase of money

Table D.8: Interview Coding Summary – P8

Impact Area	Indicator	Literal source text
Employment	Job creation	More employment opportunities
Education	Knowledge or skills acquired	Skill development, able to produce plastic products...
Empowerment	Participation in decisions (women)	
Economic Wellbeing	Income, Basic needs coverage	Raise on the salary, possibility to provide for basic needs.

Table D.9: Interview Coding Summary – P9

Impact Area	Indicator	Literal source text
Empowerment	Confidence	They feel more confident in they everyday working and personal life

Education	Knowledge or skills acquired, Culture change	Learning how to collaborate, delegate, take responsibility...
Meritocracy	% of roles assigned based on skills or contributions, -	
Innovation	Willingness to change methods or innovate, Public accessibility of services/resources, -	

Table D.10: Interview Coding Summary – P10

Impact Area	Indicator	Literal source text
Education	Knowledge or skills acquired	More trainings provided
Social inclusion	Perception of social inclusion	Social cohesion increase
Employment	Job creation, Employment stability	They have stable jobs and feel then more safe. Have the possibility to hire someone
Economic Wellbeing	Income	Level of percentage of income increase...

Table D.11: Interview Coding Summary – P11

Impact Area	Indicator	Literal source text
Education	Knowledge or skills acquired	Human capital, education...
Employment	Production output	Time saved in the production
Economic Wellbeing	Income	Increase in income

Table D.12: Interview Coding Summary – P12

Impact Area	Indicator	Literal source text
Education	Knowledge or skills acquired	Learning, skill development, entrepreneurial mindset, awareness, education...
Empowerment	Confidence, Perception of empowerment, Independent decision making	
Economic Wellbeing	Income	Income generation
Social Inclusion	Status in the family, Status in the community	

Impact	Indicators
Education (9)	Knowledge or skills acquired (9) Cultural exchange (5)
Employment (3)	Employment stability (1) Production output (2) Job creation (3)
Empowerment (5)	Independent decision-making (2) Participation in decisions (women) (1) Perception of empowerment (1) Confidence (3) Problem-solving skills (1)
Economic Wellbeing (9)	Financial independence (1) Income (8) Asset ownership (1) Basic needs coverage (2)
Innovation (1)	Willingness to change methods or innovate (1) Public accessibility of services/resources (1)
Meritocracy (1)	% of roles assigned based on skills or contributions(1)
No impact (1)	No indicators (1)
Social inclusion (5)	Status in the family (1) Status in the community (2) Perception of social inclusion (3)

Table D.13: Impact Areas and Their Indicators

D.3. Interview Coding Tables for Q5,Q6

D.3.1. Coding Q5

Participant	Code	Literal source text
P1	Conversation with people affected by the project	Ask the participants if they are happy.
P2	Conversation with people affected by the project	Seeing and talking with farmers.
P3	Conversation with people affected by the project	Talk with the ones affected.
P4	Conversation with people affected by the project, Post-project discussions with students	By feedbacks from the local community. If students are satisfied.
P5	Post-project discussions with students	Understand if the students have learned.
P6	Conversation with people affected by the project	Meet the people that were affected.
P7	Post-project discussions with students	Conversation with the students that participated in the project.
P8	Sales	By the sales, On how products are selling.
P9	Conversation with people affected by the project	Ask the people affected.
P10	Conversation with people affected by the project	Conversation with the ones affected.
P11	Skill development of the stakeholders	Skill development of the stakeholders.
P12	Conversation with people involved	Talk with the ones involved.

Table D.14: Codes Q5

D.3.2. Coding Q6

Participant	Code	Literal source text
P1	Ease of use	Should be simple, and Realistic as it's for unskilled people.
P2	SMART criteria	Should respect teh SMART criteria
P3	Ease of use	Simple
P4	User-centered design	Designed based on the users.
P5	Project dependent, Before and after analysis	Project dependent with different indicators for type of project. Change before and after.
P6	User-centered design	Should take into consideration the users.
P7	Ease of use	Easy to use.
P8	Ease of use	Clear and easy to understand
P9	Qualitative indicators	Use qualitative indicators.
P10	Before and after analysis, User-centered design	Do a before and after. Important to consider the context.
P11	Ease of use, Validation, Project dependent	Should not take to much time, should be flexible and diverse based on the type of project . Should also be somehow validated
P12	Ease of use	Easy to use and to get the results.

Table D.15: Codes Q6

Appendix E

This appendix provides an overview of the projects in Tanzania that have collaborated with the International Entrepreneurship and Development minor and formed the basis of my fieldwork: YEP Tanzania and CHAKO. Having a better understanding of these two realities is important to understand the results of the interviews conducted in Tanzania and the two testings of the framework.

E.1. YEP Tanzania



Figure 14.1: Logo of YEP Tanzania

YEP Tanzania (Youth Entrepreneurship Program) is a community-based NGO officially registered in 2015. It began in 2006, when a group of Dutch volunteers supported young people in Sengerema in developing business plans. In 2008, this led to the creation of the Sengerema Foundation in the Netherlands, which began offering small loans alongside training. Around the same time, local youth formed an education committee that later became YEP Tanzania, now the foundation's local partner responsible for delivering training and support on the ground.

YEP Tanzania aims to enhance the economic prospects of disadvantaged youth by fostering both employment and self-employment opportunities. To this end, it delivers hands-on and accessible entrepreneurship training tailored to young people's needs.

The training includes topics such as bookkeeping, financial planning, cost categorization, savings and loan use, profit calculation, the business model canvas and marketing strategies. In parallel, participants are offered life skills modules covering areas like personal growth, behavioural change, conflict resolution, and family dynamics. Further sessions address practical matters such as taxation, licensing, and negotiation techniques.

A central element of the program is its mentorship-based approach. Many trainers are themselves former participants who have launched their own businesses and now act as role models. These coaches support new trainees in areas such as business planning, product development, networking with financial institutions, formalizing operations, and staying motivated through setbacks.

YEP Tanzania has implemented its activities in several regions across the country, including Sengerema, Meatu, Iringa, Rombo, and Dodoma.

E.1.1. YEP Tanzania in Misungwi

In Misungwi, YEP Tanzania focuses specifically on promoting youth entrepreneurship in the agricultural sector. The project aims to create employment and self-employment opportunities for young people by encouraging them to become commercial farmers or livestock keepers. A key goal is to make agriculture an attractive and viable option for youth in rural areas, not only as a means of income but also as a way to inspire others by becoming role models within their communities.



Figure 14.1: Students attending the first classroom session in Misungwi

The program also works to establish the infrastructure necessary to make farming both feasible and appealing. This includes access to land, tools, training, and a safe and supportive environment. The facilities serve multiple purposes: they function as a training and visitor centre for those interested in learning more about commercial farming and livestock keeping, and they also host seminars for partners and other interested stakeholders.

To achieve its objectives, YEP Tanzania provides practical training and empowers young people to manage a farm or livestock business in a commercial and sustainable way within three years. Participants receive tools and access to shared infrastructure at no initial cost. YEP also supports them in record-keeping, developing financial insight, and expanding their market access through its broad network.



Figure 14.2: A group of participants during the second day of entrepreneurship training

The program is built around a structured three-year trajectory that supports young people from the very beginning, often with no prior experience, toward full independence. This path is divided into stages. In the early phase, participants receive practical training and close support from experienced farmers, many of whom are former participants in the program.

By the third year, participants are expected to manage their agricultural activities autonomously, including production, sales, and business operations. One of the most innovative and empowering aspects

of the initiative is the gradual handover of ownership. Each group is allocated a plot of land by YEP Tanzania, and throughout the program, the share of profit retained by the organization is progressively reduced.

At the end of the third year, full ownership of the land is transferred to the farmers, free of charge. This ensures that they can continue their agricultural work without external dependency. In addition to technical and practical skills, the program places strong emphasis on business management and market access, helping participants develop a sustainable and entrepreneurial approach to farming. By the conclusion of the program, young farmers are equipped not only with the tools and knowledge to maintain their activities, but also with the confidence and autonomy to expand them. This method supports long-term economic stability and repositions agriculture as a viable and respected career choice for the younger generation.



Figure E.1: In the greenhouse with the farmers

All information about YEP Tanzania was obtained from the official website (<https://yeptanzania.or.tz/>) and from insights gathered during the field trip. All photos presented here were taken by me.

E.2. CHAKO Organization



Figure E.2: Logo of CHAKO Organization

CHAKO is a social enterprise based in Mndoo, Zanzibar, that creates environmental and social value by creatively reusing waste materials. Founded in 2010 in a small space behind the Zenji Hotel, it started as a community-driven initiative where local women crafted souvenirs from discarded tourist waste. Over time, CHAKO has grown into a structured workshop employing nearly forty people. It became the first organization in Zanzibar to obtain guaranteed membership in the World Fair Trade Organization (WFTO), reflecting its commitment to ethical production and fair labor practices.

The enterprise focuses on generating employment and building skills among underrepresented groups, particularly women and youth. By offering training in artisanal techniques and access to new markets, CHAKO supports participants in building sustainable livelihoods.

Its production process centers on upcycling materials such as glass and plastic into handcrafted products, from lamps and drinking glasses to jars and carved wood pieces. All items are made with low-energy methods and simple tools, ensuring ecological sustainability.



CHAKO's training method emphasizes hands-on learning and peer collaboration. Most new artisans join without prior experience and are taught directly by peers in a cooperative setting, helping them build both technical skills and confidence.

Participants learn tasks such as glass cutting, sanding, and polishing, while also gaining exposure to traditional Zanzibari wood-carving techniques reimagined through modern design.

Figure E.3: The CHAKO factory in Zanzibar

In recent years, CHAKO has expanded its impact through a partnership with the TUI Care Foundation. This collaboration led to the creation of a plastic recycling facility, providing training and income opportunities for at least 50 unemployed youth and women. The initiative also includes a large-scale waste collection effort, targeting 550,000 kg of plastic annually (about 20% of Zanzibar's plastic waste) and a school program engaging 750 students and 50 teachers on circular economy and waste awareness. All information about CHAKO was obtained from the official website (<https://chakozanzibar.com/>) and from insights gathered during the field trip. The photo presented here was taken by me.



Appendix F

F.1. Answers YEP Tanzania

Question	Options	Response
Compared to before the project, how important do you feel your role within your family is now?	1 = Much less important 2 = Slightly less important 3 = About the same 4 = Slightly more important 5 = Much more important	4
Compared to before the project, how important do you feel your role within your community is now?	1 = Much less important 2 = Slightly less important 3 = About the same 4 = Slightly more important 5 = Much more important	4
Compared to before the project, how accepted by society for who you are do you feel now?	1 = Much less accepted 2 = Slightly less accepted 3 = About the same 4 = Slightly more accepted 5 = Much more accepted	4
Compared to before the project, how do you think your level of confidence is now?	1 = Much lower 2 = Slightly lower 3 = About the same 4 = Slightly higher 5 = Much higher	5

Question	Options	Response
Compared to before the project, to what extent do you feel you are able to make important decisions that affect your personal life?	1 = Much less able 2 = Slightly less able 3 = About the same 4 = Slightly more able 5 = Much more able	5
Compared to before the project, to what extent do you feel you are able to make important decisions related to your work?	1 = Much less able 2 = Slightly less able 3 = About the same 4 = Slightly more able 5 = Much more able	5
Compared to before the project, to what extent do you feel positive about your future?	1 = Much less positive than before 2 = Less positive than before 3 = No change 4 = More positive than before 5 = Much more positive than before	5
To what extent do you feel you have learned new information since the beginning of the project?	1 = Not at all 2 = A little 3 = I don't know / I'm not sure 4 = Somewhat 5 = A lot	5
Have you applied the knowledge you gained in the project in your daily life?	Yes / I don't know / No	Yes
To what extent do you think you have learned from interacting with people from a different culture?	1 = Not at all 2 = A little 3 = I don't know / I'm not sure 4 = Somewhat 5 = A lot	5
Does your household have running water before the project?	Yes / Prefer not to answer / No	No
Does your household have running water after the project?	Yes / Prefer not to answer / No	No
Does your household have a refrigerator before the project?	Yes / Prefer not to answer / No	No
Does your household have a refrigerator after the project?	Yes / Prefer not to answer / No	No
Did you have a smartphone before the project?	Yes / Prefer not to answer / No	Yes

Question	Options	Response
Do you have a smartphone after the project?	Yes / Prefer not to answer / No	Yes
What was the main building material of the roof of your house before the project?	1 = Mud/grass 2 = Leaves/bamboo 3 = Timber 4 = Cement 5 = Concrete or Tiles	4
What is the main building material of the roof of your house after the project?	1 = Mud/grass 2 = Leaves/bamboo 3 = Timber 4 = Cement 5 = Concrete or Tiles	4
What was the main building material of the floor of the main dwelling?	1 = Earth 2 = Timber 3 = Other 4 = Cement 5 = Concrete or Tiles	4
What is the main building material of the floor of the main dwelling?	1 = Earth 2 = Timber 3 = Other 4 = Cement 5 = Concrete or Tiles	4
How many children (under 17) lived in your house before the project?	1 = Four or more 2 = Three 3 = Other 4 = One 5 = None	5
How many children (under 17) live in your house after the project?	1 = Four or more 2 = Three 3 = Other 4 = One 5 = None	3
Were you renting a house before the project?	Yes / Prefer not to answer / No	Yes
Are you renting a house after the project?	Yes / Prefer not to answer / No	No

Question	Options	Response
Compared to before the project, how able do you feel to afford your basic needs?	1 = Much less able 2 = Slightly less able 3 = About the same 4 = Slightly more able 5 = Much more able	4
Compared to before the project, to what extent do you feel economically independent?	1 = Much less independent 2 = Slightly less independent 3 = About the same 4 = Slightly more independent 5 = Much more independent	4
Compared to before the project, how do you think your average monthly salary changed?	1 = Much lower 2 = Slightly lower 3 = About the same 4 = Slightly higher 5 = Much higher	4
Compared to before the project, how stable do you feel your job or employment situation is?	1 = Much less stable 2 = Slightly less stable 3 = About the same 4 = Slightly more stable 5 = Much more stable	4
Compared to before the project, to what extent do you feel able to hire or support additional workers in your business or activity?	1 = Much less able 2 = Slightly less able 3 = About the same 4 = Slightly more able 5 = Much more able	3
Compared to before the project, to what extent has your level of production changed?	1 = Much lower 2 = Slightly lower 3 = About the same 4 = Slightly higher 5 = Much higher	4

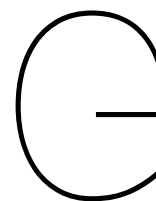
F.2. Answers CHAKO

Question	Options	Response
Compared to before the project, how important do you feel your role within your family is now?	1 = Much less important 2 = Slightly less important 3 = About the same 4 = Slightly more important 5 = Much more important	3
Compared to before the project, how important do you feel your role within your community is now?	1 = Much less important 2 = Slightly less important 3 = About the same 4 = Slightly more important 5 = Much more important	3
Compared to before the project, how accepted by society for who you are do you feel now?	1 = Much less accepted 2 = Slightly less accepted 3 = About the same 4 = Slightly more accepted 5 = Much more accepted	3
Compared to before the project, how do you think your level of confidence is now?	1 = Much lower 2 = Slightly lower 3 = About the same 4 = Slightly higher 5 = Much higher	4
Compared to before the project, to what extent do you feel you are able to make important decisions that affect your personal life?	1 = Much less able 2 = Slightly less able 3 = About the same 4 = Slightly more able 5 = Much more able	4
Compared to before the project, to what extent do you feel you are able to make important decisions related to your work?	1 = Much less able 2 = Slightly less able 3 = About the same 4 = Slightly more able 5 = Much more able	3

Question	Options	Response
Compared to before the project, to what extent do you feel positive about your future?	1 = Much less positive than before 2 = Less positive than before 3 = No change 4 = More positive than before 5 = Much more positive than before	3
To what extent do you feel you have learned new information since the beginning of the project?	1 = Not at all 2 = A little 3 = Prefer not to answer 4 = Somewhat 5 = A lot	5
Have you applied the knowledge you gained in the project in your daily life?	Yes / Prefer not to answer / No	Yes
To what extent do you think you have learned from interacting with people from a different culture?	1 = Not at all 2 = A little 3 = Prefer not to answer 4 = Somewhat 5 = A lot	5
Does your household have running water before the project?	Yes / Prefer not to answer / No	No
Does your household have running water after the project?	Yes / Prefer not to answer / No	Yes
Does your household have a refrigerator before the project?	Yes / Prefer not to answer / No	No
Does your household have a refrigerator after the project?	Yes / Prefer not to answer / No	No
Did you have a smartphone before the project?	Yes / Prefer not to answer / No	Yes
Do you have a smartphone after the project?	Yes / Prefer not to answer / No	Yes
What was the main building material of the roof of your house before the project?	1 = Mud/grass 2 = Leaves/bamboo 3 = Timber 4 = Cement 5 = Concrete or Tiles	1

Question	Options	Response
What is the main building material of the roof of your house after the project?	1 = Mud/grass 2 = Leaves/bamboo 3 = Timber 4 = Cement 5 = Concrete or Tiles	1
What was the main building material of the floor of the main dwelling?	1 = Earth 2 = Timber 3 = Other 4 = Cement 5 = Concrete or Tiles	4
What is the main building material of the floor of the main dwelling?	1 = Earth 2 = Timber 3 = Other 4 = Cement 5 = Concrete or Tiles	4
How many children (under 17) lived in your house before the project?	1 = Four or more 2 = Three 3 = Other 4 = One 5 = None	2
How many children (under 17) live in your house after the project?	1 = Four or more 2 = Three 3 = Other 4 = One 5 = None	2
Were you renting a house before the project?	Yes / I don't know / No	Yes
Are you renting a house after the project?	Yes / I don't know / No	Yes
Compared to before the project, how able do you feel to afford your basic needs?	1 = Much less able 2 = Slightly less able 3 = About the same 4 = Slightly more able 5 = Much more able	3

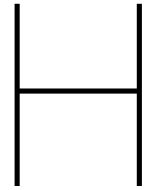
Question	Options	Response
Compared to before the project, to what extent do you feel economically independent?	1 = Much less independent 2 = Slightly less independent 3 = About the same 4 = Slightly more independent 5 = Much more independent	4
Compared to before the project, how do you think your average monthly salary changed?	1 = Much lower 2 = Slightly lower 3 = About the same 4 = Slightly higher 5 = Much higher	4
Compared to before the project, how stable do you feel your job or employment situation is?	1 = Much less stable 2 = Slightly less stable 3 = About the same 4 = Slightly more stable 5 = Much more stable	4
Compared to before the project, to what extent do you feel able to hire or support additional workers in your business or activity?	1 = Much less able 2 = Slightly less able 3 = About the same 4 = Slightly more able 5 = Much more able	4
Compared to before the project, to what extent has your level of production changed?	1 = Much lower 2 = Slightly lower 3 = About the same 4 = Slightly higher 5 = Much higher	4



Appendix G

Sub-indicator	Question and Answer Options
Income	
Monthly salary (before)	What was your average monthly salary before the project? <i>Answer: Number</i>
Monthly salary (after)	What is your average monthly salary after the project? <i>Answer: Number</i>
Running water (before)	Did your household have running water before the project? <i>Answer: Yes / Prefer not to answer / No</i>
Running water (after)	Does your household have running water after the project? <i>Answer: Yes / Prefer not to answer / No</i>
Refrigerator (before)	Did your household have a refrigerator before the project? <i>Answer: Yes / Prefer not to answer / No</i>
Refrigerator (after)	Does your household have a refrigerator after the project? <i>Answer: Yes / Prefer not to answer / No</i>
Smartphone (before)	Did you have a smartphone before the project? <i>Answer: Yes / Prefer not to answer / No</i>
Smartphone (after)	Do you have a smartphone after the project? <i>Answer: Yes / Prefer not to answer / No</i>
Roof material (before)	What was the main material of the roof before the project? <i>Answer: 1 = Mud/grass, 2 = Leaves/bamboo, 3 = Timber, 4 = Cement, 5 = Concrete or Tiles</i>
Roof material (after)	What is the main material of the roof after the project? <i>Answer: 1 = Mud/grass, 2 = Leaves/bamboo, 3 = Timber, 4 = Cement, 5 = Concrete or Tiles</i>
Floor material (before)	What was the main material of the floor before the project? <i>Answer: 1 = Earth, 2 = Timber, 3 = Other, 4 = Cement, 5 = Concrete or Tiles</i>
Floor material (after)	What is the main material of the floor after the project? <i>Answer: 1 = Earth, 2 = Timber, 3 = Other, 4 = Cement, 5 = Concrete or Tiles</i>
Children in household (before)	How many children (under 17) lived in your house before the project? <i>Answer: 1 = Four or more, 2 = Three, 3 = Two, 4 = One, 5 = None</i>
Children in household (after)	How many children (under 17) live in your house now? <i>Answer: 1 = Four or more, 2 = Three, 3 = Two, 4 = One, 5 = None</i>
Renting (before)	Were you renting a house before the project? <i>Answer: Yes / Prefer not to answer / No</i>
Renting (after)	Are you renting a house after the project? <i>Answer: Yes / Prefer not to answer / No</i>

Table G.1: Sub-Indicators, Questions, and possible answers for the Economic Wellbeing impact area - Income



Appendix H

H.1. User Testing: Completion Time

Participant	Time Taken (minutes)
Person 1	11
Person 2	13
Person 3	12
Person 4	10
Person 5	14
Person 6	12
Person 7	12
Person 8	11
Person 9	14
Person 10	12
Average	12.1

Table H.1: Time Required to Complete the Framework (Version 1)

Participant	Time Taken (minutes)
Person 1	22
Person 2	25
Person 3	24
Person 4	20
Person 5	27
Person 6	23
Person 7	23
Person 8	21
Person 9	26
Person 10	23
Average	23.4

Table H.2: Time Required to Complete the Framework (Version 2)

H.2. Version 2

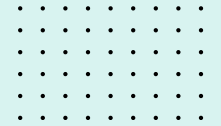
Question (Before the Project)	Options
How important do you feel your role within your family is?	1 = Not important at all 2 = Slightly important 3 = Moderately important 4 = Important 5 = Very important
How important do you feel your role within your community is?	1 = Not important at all 2 = Slightly important 3 = Moderately important 4 = Important 5 = Very important
How accepted by society for who you are do you feel?	1 = Not accepted at all 2 = Slightly accepted 3 = Moderately accepted 4 = Accepted 5 = Fully accepted
How would you describe your current level of confidence?	1 = Very low 2 = Low 3 = Moderate 4 = High 5 = Very high
To what extent do you feel able to make important decisions affecting your personal life?	1 = Not at all 2 = Slightly 3 = Moderately 4 = Mostly 5 = Completely
To what extent do you feel able to make important decisions related to your work?	1 = Not at all 2 = Slightly 3 = Moderately 4 = Mostly 5 = Completely
How positive do you feel about your future?	1 = Not positive at all 2 = Slightly positive 3 = Moderately positive 4 = Positive 5 = Very positive
To what extent do you feel you know new things?	1 = Not at all 2 = A little 3 = Prefer not to answer 4 = Somewhat 5 = A lot
Have you applied the knowledge you have in your daily life?	Yes / Prefer not to answer / No
To what extent have you learned from interacting with people from a different culture?	1 = Not at all 2 = A little 3 = Prefer not to answer 4 = Somewhat 5 = A lot
Does your household have running water?	Yes / Prefer not to answer / No
Does your household have a refrigerator?	Yes / Prefer not to answer / No

Question (Before the Project)	Options
Do you have a smartphone?	Yes / Prefer not to answer / No
What is the main building material of the roof of your house?	1 = Mud/grass 2 = Leaves/bamboo 3 = Timber 4 = Cement 5 = Concrete or Tiles
What is the main building material of the floor of the main dwelling?	1 = Earth 2 = Timber 3 = Other 4 = Cement 5 = Concrete or Tiles
How many children (under 17) live in your house?	1 = Four or more 2 = Three 3 = Two 4 = One 5 = None
Are you renting a house?	Yes / Prefer not to answer / No
How able do you feel to afford your basic needs?	1 = Not able at all 2 = Slightly able 3 = Moderately able 4 = Able 5 = Very able
To what extent do you feel economically independent?	1 = Not at all 2 = Slightly 3 = Moderately 4 = Mostly 5 = Completely
What is your average monthly salary?	1 = Very low 2 = Low 3 = Moderate 4 = High 5 = Very high
How stable is your job or employment situation?	1 = Not stable at all 2 = Slightly stable 3 = Moderately stable 4 = Stable 5 = Very stable
To what extent do you feel able to hire or support workers in your business?	1 = Not at all 2 = Slightly 3 = Moderately 4 = Mostly 5 = Completely
What is your current level of production?	1 = Very low 2 = Low 3 = Moderate 4 = High 5 = Very high

— After the Project —

Question (After the Project)	Options
How important do you feel your role within your family is now?	1 = Not important at all 2 = Slightly important 3 = Moderately important 4 = Important 5 = Very important
How important do you feel your role within your community is now?	1 = Not important at all 2 = Slightly important 3 = Moderately important 4 = Important 5 = Very important
How accepted by society for who you are do you feel now?	1 = Not accepted at all 2 = Slightly accepted 3 = Moderately accepted 4 = Accepted 5 = Fully accepted
How would you describe your current level of confidence?	1 = Very low 2 = Low 3 = Moderate 4 = High 5 = Very high
To what extent do you feel able to make important decisions affecting your personal life now?	1 = Not at all 2 = Slightly 3 = Moderately 4 = Mostly 5 = Completely
To what extent do you feel able to make important decisions related to your work now?	1 = Not at all 2 = Slightly 3 = Moderately 4 = Mostly 5 = Completely
How positive do you feel about your future now?	1 = Not positive at all 2 = Slightly positive 3 = Moderately positive 4 = Positive 5 = Very positive
To what extent do you feel you have learned new things during the project?	1 = Not at all 2 = A little 3 = Prefer not to answer 4 = Somewhat 5 = A lot
Have you applied the knowledge you gained during the project in your daily life?	Yes / Prefer not to answer / No
To what extent have you learned from interacting with people from a different culture?	1 = Not at all 2 = A little 3 = Prefer not to answer 4 = Somewhat 5 = A lot
Does your household have running water now?	Yes / Prefer not to answer / No
Does your household have a refrigerator now?	Yes / Prefer not to answer / No
Do you have a smartphone now?	Yes / Prefer not to answer / No

Question (After the Project)	Options
What is now the main building material of the roof of your house?	1 = Mud/grass 2 = Leaves/bamboo 3 = Timber 4 = Cement 5 = Concrete or Tiles
What is now the main building material of the floor of the main dwelling?	1 = Earth 2 = Timber 3 = Other 4 = Cement 5 = Concrete or Tiles
How many children (under 17) live in your house now?	1 = Four or more 2 = Three 3 = Two 4 = One 5 = None
Are you renting a house now?	Yes / Prefer not to answer / No
How able do you feel to afford your basic needs now?	1 = Not able at all 2 = Slightly able 3 = Moderately able 4 = Able 5 = Very able
To what extent do you feel economically independent now?	1 = Not at all 2 = Slightly 3 = Moderately 4 = Mostly 5 = Completely
What is your average monthly salary now?	1 = Very low 2 = Low 3 = Moderate 4 = High 5 = Very high
How stable is your job or employment situation now?	1 = Not stable at all 2 = Slightly stable 3 = Moderately stable 4 = Stable 5 = Very stable
To what extent do you feel able to hire or support workers in your business now?	1 = Not at all 2 = Slightly 3 = Moderately 4 = Mostly 5 = Completely
What is your current level of production now?	1 = Very low 2 = Low 3 = Moderate 4 = High 5 = Very high



M FRAMEWORK

A Framework for Assessing the Socio-Economic
Impact of Small-Scale Entrepreneurship Projects in
Tanzania

Version 1.0 — June 2025
Designed by Margherita Maria Cecilia Andorno

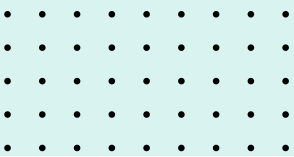


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EXECUTIVE SUMMARY

The M Framework, a structured and adaptable tool designed to assess the socio-economic impact of small-scale entrepreneurship projects in Tanzania.

Developed through extensive research and consultation, the framework helps practitioners, programme managers, and researchers capture and interpret both tangible and intangible changes resulting from project interventions.

The framework focuses on five core areas of impact: **Skill Development, Empowerment, Social Inclusion, Economic Wellbeing, and Employment.**

Each area is measured through a set of standardized questions with corresponding scoring options, enabling users to collect consistent data across respondents.

The M Framework is supported by an interactive web-based platform that automates scoring, visualization, and reporting. For each area of impact, scores can be calculated individually to show the degree of change achieved. In addition, a final overall impact score is produced to summarize the project's results in a single metric.

By making this framework openly available, the goal is to strengthen the capacity of organizations working in entrepreneurship to generate evidence, improve programme design, and communicate impact effectively to stakeholders.

SCOPE AND INTENDED USERS

This framework was developed to fill a clear gap: the lack of an accessible and structured tool for measuring the socio-economic impact of small-scale entrepreneurship projects in low-income contexts. While general evaluation methods exist, few are designed specifically for initiatives operating with limited resources and focused on supporting small businesses in local markets.

Small-scale entrepreneurship projects are activities that help create or grow income-generating work carried out by individuals, informal groups, or small organisations. These initiatives are typically characterised by modest turnover, fewer than 20 employees, and restricted access to formal financing.

Intended users:

The M Framework is intended for a wide range of users, including NGOs, community organisations, donor agencies, universities, consultants, and public institutions. It can be used by anyone involved in designing, delivering, or supporting entrepreneurship initiatives who wants a consistent way to understand and communicate their impact.

Whether applied to training programmes, microenterprise development, or community-driven business support, the framework provides clear questions, structured scoring, and an easy-to-use digital tool. This design allows teams with different levels of experience to generate evidence, improve project design, and share results effectively with partners and stakeholders.

GUIDELINES

The framework consists of 30 questions covering different aspects of participants' experience. It is essential to answer each question honestly and without fear of judgement, as there are no right or wrong responses. If an interviewer is present, they should create a friendly and respectful environment to help respondents feel at ease. To improve the reliability of results, it is advised to involve multiple participants whenever possible, so that different perspectives can be compared and a more balanced understanding of the project's impact can be achieved. Keep in mind that the timing of the assessment strongly influences results. Measurements soon after project completion are likely to capture early changes, while later assessments may reflect more sustained effects but can also be affected by recall bias or attribution errors. Because there is no single definition of when a change becomes an "impact" rather than an "outcome," it is essential to clearly document when data were collected and interpret results accordingly. Where possible, combining an initial assessment with a follow-up after 6–12 months is recommended to gain a more complete picture.

How to complete the framework

There are five impact areas to be assessed, listed here in alphabetical order: Economic Wellbeing, Employment, Empowerment, Skill Development, and Social Inclusion.

For each impact area, you will find a set of questions and corresponding answer options.

The process is as follows:

1. Read the question carefully to the respondent.

2. Record the "Raw score" based on the selected answer option.

Example:

Question: "Compared to before the project, to what extent do you feel economically independent?"

Answer options:

1 = Much less independent

2 = Slightly less independent

3 = About the same

4 = Slightly more independent

5 = Much more independent

If the respondent feels "Much less independent", you will record an Answer Score of 1.

3. Complete the "Score" column.

The way you assign this value depends on the type of question:

- If the question has 5 answer options, refer to *Table 1* showing how to convert the raw score to a normalised value.
- If the question has 3 answer options ("Yes", "No" and "Prefer not to answer"), refer to *Table 2*.

Response	Score
1	0
2	0.25
3	0.5
4	0.75
5	1

Table 1

Question	Score
No	1
Prefer not to answer	0.5
Yes	0

Table 2

0.00 - 0.19	Strong negative impact
0.20 - 0.39	Mild negative impact
0.40 - 0.59	No significant impact
0.60 - 0.79	Moderate positive impact
0.80 - 1.00	Strong positive impact

Table 3

Area of impact	Suggested weight
Skill Development	0.24
Empowerment	0.22
Social Inclusion	0.21
Economic Wellbeing	0.16
Employment	0.16

Table 4

4. Identifying comparison questions

Questions with a light-blue background are scored directly. If there is no background, compare the response to the related "before" question and subtract the earlier score from the later one.

5. Calculating the impact area score

Average all scores shown in the light-blue boxes to get the final score for each impact area.

6. Interpreting impact area results

Use Table 3 to interpret each area's final score.

7. Calculating the overall impact score

Multiply each impact area score by its chosen weight. Make sure the weights add up to 1. You can use the suggested weights in Table 4 or define your own. Sum all weighted scores to get the overall result. The final value will range between 0 and 1.

8. Interpreting the final result

Refer again to Table 3 to interpret the overall impact level.

IMPACT ASSESSMENT

Name: Date:

ECONOMIC WELLBEING

! The following questions aim to provide a better understanding of general living conditions. They serve as indirect indicators to help estimate the overall level of household income.

Question	Answer Options	Answer Code	Score	Delta
Compared to before the project, how do you think your average monthly salary has changed?	1 = Significantly decreased ; 2 = Slightly decreased ; 3 = No change; 4 = Slightly increased ; 5 = Significantly increased			
Did your household have running water before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Does your household have running water after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Did your household have a refrigerator before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Does your household have a refrigerator after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Did you have a smartphone before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Do you have a smartphone after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
What was the main material of the roof before the project?	1 = Mud/grass; 2 = Leaves/bamboo; 3 = Timber; 4 = Cement; 5 = Concrete or Tiles			
What is the main material of the roof after the project?	1 = Mud/grass; 2 = Leaves/bamboo; 3 = Timber; 4 = Cement; 5 = Concrete or Tiles			
What was the main material of the floor before the project?	1 = Earth; 2 = Timber; 3 = Other; 4 = Cement; 5 = Concrete or Tiles			
What is the main material of the floor after the project?	1 = Earth; 2 = Timber; 3 = Other; 4 = Cement; 5 = Concrete or Tiles			
How many children (under 17) lived in your house before the project?	1 = Four or more; 2 = Three; 3 = Two; 4 = One; 5 = None			
How many children (under 17) live in your house now?	1 = Four or more; 2 = Three; 3 = Two; 4 = One; 5 = None			
Were you renting a house before the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Are you renting a house after the project?	1 = No; 2 = Prefer not to answer; 3 = Yes			
Compared to before the project, how able do you feel to afford your basic needs?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able			
Compared to before the project, to what extent do you feel economically independent?	1 = Much less independent; 2 = Slightly less independent; 3 = About the same; 4 = Slightly more independent; 5 = Much more independent			
Average				

SKILL DEVELOPMENT

Question	Answer Options	Answer Code	Score
To what extent do you feel you have learned new information useful for your work or job since the beginning of the project?	1 = Not at all; 2 = A little; 3 = I don't know / Not sure; 4 = Somewhat; 5 = A lot		
Have you applied the knowledge you gained in the project in your daily life?	1 = No; 2 = Prefer not to answer; 3 = Yes		
How much do you feel you have learned from interacting with people from a different culture?	1 = Not at all; 2 = A little; I don't know / Not sur; 4 = Somewhat; 5 = A lot		
Average			

EMPLOYMENT

Question	Answer Option	Answer Code	Score
Compared to before the project, how stable do you feel your job or employment situation is?	1 = Much less stable; 2 = Slightly less stable; 3 = About the same; 4 = Slightly more stable; 5 = Much more stable		
Compared to before the project, to what extent do you feel able to hire or support additional workers in your business or activity?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Compared to before the project, how much has your level of production changed?	1 = Much lower; 2 = Slightly lower; 3 = About the same; 4 = Slightly higher; 5 = Much higher		
Average			

SOCIAL INCLUSION

Question	Answer Option	Answer Code	Score
Compared to before the project, how important do you feel your role within your family is now?	1 = Much less important; 2 = Slightly less important; 3 = About the same; 4 = Slightly more important; 5 = Much more important		
Compared to before the project, how important do you feel your role within your community is now?	1 = Much less important; 2 = Slightly less important; 3 = About the same; 4 = Slightly more important; 5 = Much more important		
Compared to before the project, how accepted by society for who you are do you feel now?	1 = Much less accepted; 2 = Slightly less accepted; 3 = About the same; 4 = Slightly more accepted; 5 = Much more accepted		
Average			

EMPOWERMENT

Question	Answer Option	Answer Code	Score
Compared to before the project, how do you think your level of confidence is now?	1 = Much lower; 2 = Slightly lower; 3 = About the same; 4 = Slightly higher; 5 = Much higher		
Compared to before the project, to what extent do you feel you are able to make important decisions that affect your personal life?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Compared to before the project, to what extent do you feel you are able to make important decisions related to your work?	1 = Much less able; 2 = Slightly less able; 3 = About the same; 4 = Slightly more able; 5 = Much more able		
Compared to before the project, to what extent do you feel positive about your future?	1 = Much less positive than before; 2 = Less positive than before ; 3 = No change; 4 = More positive than before; 5 = Much more positive than before		
Before the project, did you have the right to sell, rent out, or give away the mats or the bed?	1 = No; 2 = Yes, jointly with other household members; 3 = Prefer not to answer; 4 = Yes, jointly with spouse; 5 = Yes, alone		
After the project, do you have the right to sell, rent out, or give away the mats or the bed?	1 = No; 2 = Yes, jointly with other household members; 3 = Prefer not to answer; 4 = Yes, jointly with spouse; 5 = Yes, alone		
Average			

Please respond to these questions only if you, or the individual being interviewed, identifies as female.

Now that you have completed all the questions, you should have the average score for each area of impact.

How to calculate the final score:

Multiply each area's average score by its assigned weight, then add all the weighted scores to get the overall value. The suggested weights are provided in Table 5.

Finally, use Table 4 to interpret the final score.

On the right, you will find a visual guide to help you complete this step.

Enter:

AvG score Economic Wellbeing: ____

AvG score Skill Development: ____

AvG score Employment: ____

AvG score Social Inclusion: ____

AvG score Empowerment: ____

Selected weight for Economic Wellbeing: ____

Selected weight for Skill Development: ____

Selected weight for Employment: ____

Selected weight for Social Inclusion: ____

Selected weight for Empowerment: ____

$$\text{Final Score} = (\text{Avg Economic Wellbeing} \times \text{Weight Economic Wellbeing}) + (\text{Avg Skill Development} \times \text{Weight Skill Development}) + (\text{Avg Employment} \times \text{Weight Employment}) + (\text{Avg Social Inclusion} \times \text{Weight Social Inclusion}) + (\text{Avg Empowerment} \times \text{Weight Empowerment})$$

Final Score: _____

Interpretation: _____

LIMITATIONS

While this framework was carefully developed and tested, several limitations should be considered when using it. The design is intentionally broad to allow application across different types of small-scale entrepreneurship, which means it may not fully capture sector-specific dynamics or highly context-dependent indicators. Additionally, results rely on self-reported data and perceptions, which can be influenced by optimism bias, social desirability, or difficulties recalling past conditions accurately.

The timing of assessment also plays an important role. Early evaluations tend to reflect short-term changes, while longer-term impacts may emerge only after several months. For this reason, users are encouraged to document clearly when data were collected and, where feasible, complement this tool with additional methods or follow-up assessments.

Despite these limitations, the framework provides a structured, flexible approach to exploring the socio-economic impact of small-scale entrepreneurship initiatives. There remains considerable scope for further refinement and adaptation. Future revisions and field applications can help strengthen its relevance, clarity, and reliability over time.

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