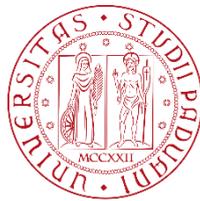


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MICROFINANCE FOR FOOD SECURITY

A case study of APG23 in Tanzania

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## **ABSTRACT**

The multidimensional concept of food security relates to the fulfilment, or lack thereof, of the right to food: can everyone in a specific area, the ethnic or social group have access to adequate and nutritious food and conduct an active life? In particular, the impact of financial inclusion on food security is still under debate, even though there are evidence that financial support helps people cope with food insecurity situations. The aim of the research is to observe and demonstrate whether microfinance can be an effective tool for food security. After a review of the relevant literature on the concepts of food security and microfinance, we focus on the Tanzanian context, through field research of a case study. Even though the issue of food security should be always tackled from multiple perspectives, evidence shows that microfinance and financial inclusion are a tool for food access improvement. The eradication of food insecurity could take place through the implementation of local and generative projects, aimed at placing the well-being and development of the person at the core.



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## ACRONYMS

<b>ADB</b>	African Development Bank
<b>AERC</b>	African Economic Research Consortium
<b>APG23</b>	Associazione Papa Giovanni XXIII
<b>ASCA</b>	Accumulating Savings and Credit Association
<b>ATM</b>	Automatic Teller Machine
<b>BMI</b>	Body Mass Index
<b>BoT</b>	Bank of Tanzania
<b>CCC</b>	Community Credit Corporation
<b>CCM</b>	Chama Chi Mapinduzi
<b>CFS</b>	Committee on Food Security
<b>CGAP</b>	Consultative Group to Assist the Poor
<b>CMR</b>	Crude Mortality Rates
<b>CSI</b>	Coping Strategies Index
<b>CVECA</b>	Caisses Villageoises d'Épargne et de Crédit Autogérées
<b>DDS</b>	Dietary Diversity Score
<b>DHS</b>	Demographic and Health Surveys
<b>ECOSOC</b>	Economic and Social Council
<b>ESFA</b>	Emergency Food Security Assessment
<b>FAC</b>	Food Aid Convention
<b>FAO</b>	Food and Agriculture Organization
<b>FFHC</b>	Freedom from Hunger Campaign
<b>FFS</b>	Food Frequency Score
<b>FIES</b>	Food Insecurity Experience Scale
<b>FIVIMS</b>	Food Insecurity and Vulnerability Information and Mapping System
<b>FSAU</b>	Food Security Assessment Unit
<b>FSIN</b>	Food Security Information Network
<b>FVS</b>	Food Variety Score
<b>GDP</b>	Gross Domestic Product

<b>GNP</b>	Gross National Product
<b>GoT</b>	Government of Tanzania
<b>GRFC</b>	Global Report on Food Crises
<b>HBS</b>	Household Budget Survey
<b>HDI</b>	Human Development Index
<b>HEA</b>	Household Economy Approach
<b>IFAD</b>	International Fund for Agricultural Development
<b>IMF</b>	International Monetary Fund
<b>IPC/CH</b>	Integrated Food Security Phase Classification/Cadre Harmonisé
<b>ITN</b>	Insecticide-Treated Net
<b>MDG</b>	Millennium Development Goal
<b>MFI</b>	Microfinance Institution
<b>MIS</b>	Management Information System
<b>MNO</b>	Mobile network operator
<b>NBS</b>	National Bureau of Statistics
<b>NGO</b>	Non-Governmental Organization
<b>NMNAP</b>	National Multisectoral Nutrition Action Plan
<b>NMP</b>	National Microfinance Policy
<b>NNP</b>	National Nutrition Policy
<b>NNS</b>	National Nutrition Strategy
<b>PHC</b>	Population and Housing Census
<b>PPP</b>	Purchasing Power Parity
<b>PoU</b>	Prevalence of Undernourishment
<b>ROSCA</b>	Rotating Savings and Credit Association
<b>SACCO</b>	Savings and Credit Cooperative
<b>SBCC</b>	Social and Behaviour Change Communication
<b>SDG</b>	Sustainable Development Goal
<b>SHG</b>	Self-Help Group
<b>SG</b>	Savings Group

<b>SOFI</b>	State of Food Security and Nutrition
<b>TCDC</b>	Tanzanian Cooperative Development Commission
<b>TFNC</b>	Tanzania Food and Nutrition Centre
<b>UN</b>	United Nation
<b>UPR</b>	Universal Periodic Review
<b>WFC</b>	World Food Conference
<b>WFP</b>	World Food Programme
<b>WHO</b>	World Health Organization

## INTRODUCTION

Right to food is “*generally understood as the right to feed oneself in dignity*” (FAO). Similarly, food security emerged in the 1970s as a multidimensional concept. Without a unique and agreed definition, it refers to the “*secure access by all people at all times to enough food for a healthy, active life*” (World bank, 1986). Food security is difficult to measure and therefore it is more common to find measurement of food insecurity, with references to factors as vulnerability. The importance of the principles of right to food and food security has been recognized internationally thanks to the adoption of international convention and their inclusion in the 2030 Agenda. Indeed, Goal2 states the objective “Zero hunger - End hunger, achieve food security and improved nutrition and promote sustainable agriculture.” (SDGs) Yet, despite being a basic and natural condition for human existence, access to food still cannot be taken for granted. The realization of the SDG is still a long way from being achieved, since hunger continues to be a leading cause of death in the world. The number of persons experiencing hunger has increased in recent years due to events of global significance. As with some other fields, food security and nutrition have had repercussions due to the Covid-19 pandemic crisis and the outbreak of conflict in Ukraine (FAO, 2023). In particular, the pandemic had caused the rising prices of food, agricultural inputs and energy, subsequently magnified by the impact of the Ukrainian war. Even though the issue of hunger cannot be assumed to be eradicated in any part of the world, data show how it is concentrated in developing countries. It is precisely in these contexts that microcredit solutions emerged in the last century, whose objectives are to enrich sustainable development, social welfare and progress and achieve financial development, poverty alleviation and employment generation (Lopatta, Tchikov, Jaeschke & Lodhia 2017, 386-387). Food insecurity and poverty are inextricably related because low-income households frequently lack the means to obtain enough nourishing food to maintain an active and healthy lifestyle (Hjelm, 2016). More in particular, in Tanzania the majority of microfinance customers are mostly low-income earners. In the context of rural areas, their profile typically corresponds to small farmers and other people working in small income-generating activities so that microcredit loans are a tool to combat poverty. In this way microcredit helps economically excluded populations develop more assets and financial security in order to end poverty.

Starting from these considerations this research aims to underline the tight relationship between food-secure conditions and the implementation of microcredit programs. Therefore, the present thesis was driven by the following research question:

*Is microfinance an effective tool for food security?*

More precisely, the focus will be on how microcredit solutions could enhance the nutritional condition of rural households. With regard to the methodological approach of this research, Chapters 1 and 2 cover a broad literature review based on primary sources, such as international declarations and national policies, and secondary sources, namely academic articles, reports, books and reviews. Chapter 3 present the socioeconomic context in Tanzania, aimed at outlining the framework for the case study. The fourth and final Chapter is indeed devoted to the analysis of the Rainbow Project and its programme of microcredit, conducted by Associazione Comunità Papa Giovanni XXIII (henceforth, APG23, Section 4.2. presents it in detail). The data collection was conducted personally on the field in Iringa, Tanzania, with the objective to investigate the relationship between food security and microfinance. Hereby is presented the content of each chapter. The first chapter delves into the concept of food security analysing its meaning and its definitions. The chapter will cover a general literature review touching the main legal instrument which affirmed it as a concept, as well as indicators and measures to assess it. In the second chapter, the microcredit field is introduced addressing its objectives and its diffusion in the world. This financial instrument is presented and analysed from its origins until its present conception, also tackling the critical aspects that have emerged. The third chapter aims to present the general overview on the Tanzanian context, trying to give a combination of the two previous concepts, food security and microcredit. The chapter examines the spreading of microcredit solutions in the country, and it covers the situation of food security in Tanzania. Chapter 4 analyses the APG23's Rainbow Project, with particular attention on its microcredit programme. After a general introduction of APG23 and its vision, the case study will be presented addressing its research background. The second part of the chapter therefore refers to the field research and its methodology. The chapter concludes with the findings of the data collection and a brief discussion of the research outcomes.

# **CHAPTER ONE - OVERVIEW OF FOOD SECURITY**

## **1.1.Introduction**

Food security, and consequently the right to food, has been recognized multiple times by important international conferences as a fundamental human right. Over the years, the concept of food security has gone through an evolution and diversification process in accordance with new research findings and socio-economic trends (Maxwell, 1996). What remained constant was its persistence as the core of a large number of Conventions, Declarations and Resolutions (Shaw, 2007). Despite all the efforts made at the international and national level, hunger and malnutrition remain a global emergency. In addition to being a statistically significant cause of death in many developing countries, hunger is most of the time related to other socio-economic problems, such as poverty, illiteracy, and health conditions. Hunger, malnutrition, and poverty are highly intertwined, creating an endless vicious circle. According to the first FAO Director-General and 1949 Nobel Peace Prize awarded Boyd Orr, food should not be considered a mere commodity, unavoidably causing conflicts. In contrast, 'if the nations cannot agree on a food program affecting the welfare of people everywhere, there is little hope of their reaching agreement on anything' (Hambridge, 1955, p. 67).

Looking at the up-to-date numbers, according to FAO, approximately 735 million people face hunger nowadays worldwide (FAO et al, 2023a). Undernourishment rates have increased sharply as a result of the COVID-19 pandemic, reaching 9.2% of the global population in 2022 (FAO et al, 2023a). Projections yield that in 2030 almost 600 million people will be chronically undernourished. The fulfilment of food security is therefore increasingly urgent, also considering its importance in human development.

## **1.2.Definition of Food Security**

The lack of an agreed definition of food security is so appalling that some scholars collected even more than two hundred different definitions (Gentilini, 2002; Smith and al., 1993). At the international level, the commonly accepted definition is the one stated at the World Food Summit (WFS) in 1996:

*“Food security exists when all people, at all times, have physical, [social] and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life”. (FAO, 1996)*

In other words, a person is considered affected by food insecurity if safe and nutritious food is partially or totally inaccessible and there is no guarantee of an active and healthy life, due to the unavailability of food or resources. As per Maxwell, the evolution of the food security definition is represented in three shifts: from the global and national to the household and the individual; from a food-first to a livelihood perspective; and from objective indicators to subjective perceptions (Maxwell, 2001). The concept of food security emerged in the first place relative to the individual. Household food security was subsequently considered and also livelihood security and long-term sustainability have been taken into account.

In order to better clarify out theoretical understanding of food security, it is appropriate to consider other related concepts. For example, undernourishment refers to inadequate food insufficiency, preferable to food inadequacy. The latter is therefore misleading since it could be understood both to undernutrition and overnutrition (FAO, 1997). With regard to famine, it could be defined as a lack of food due to sudden events such as climate disasters. The economist Amartya Sen proved how famine mostly resulted from *“people not being entitled to adequate means of survival in the existing legal and social systems they were leaving in”* (Simon, 2012). As a final remark, hunger and food insecurity are not interchangeable concepts. Indeed, there are cases in which people are not suffering from hunger but still are in food insecure status. This is due to the possibility of complete consumption of the available resources; the reduction in quality or quantity of food commodities; or the food insecurity condition that has consequences on mental or physical health (FAO et al, 2023a).

### **1.2.1. The four Dimensions of Food Security**

Based upon the WFS definition, it is possible to determine four key elements on which the framework of food and nutrition security is based. Equally useful to analyse food security, these dimensions allow to describe the food security concept in a comprehensive manner.

The dimension of *availability* is related to the term ‘sufficient’ stated in the WFS definition and refers to the physical existence of food. It can meaningfully be assessed both at the national and at the household levels. As defined by World Food Programme (WFP), availability takes into account all the “*amount of food that is present in a country or area through all forms of domestic production, imports, food stocks and food aid*” (WFP, 2009, p.170). The definition hence deals with food production and its commerce and distribution. With regard to commercialization, it refers to the net commercial imports calculated by removing the commercials and the exports. At the household level, food availability can also partially or completely be given by self-production; as such, it is vulnerable to external factors such as water resource scarcity and land degradation, symptoms of the ongoing climate change. Despite the statement of the FAO Founding Conference “*the first cause of malnutrition and hunger is poverty*”, recently many scholars and researchers are pushing the idea that food security is not exclusively a matter of food availability. Indeed, the increasing amount of food commodities produced by agriculture would be sufficient to feed the whole population on Earth (Simon, 2012). Regarding the *access* dimension, the WFP definition refers to “*having a physical, social and economic access*” (FAO, 1997). This principle is ensured if all households can afford food in sufficient quantity, quality and variety to guarantee a nutritious diet. This amount of food can be also acquired through a combination of gifts, loans, barter and food aid (WFP, 2009, p. 170). The satisfiability of the access requirement depends mainly on the amount of household resources and on prices.

This dimension can be split further into the following points, as its definition suggests:

- The physical aspect refers mainly to the logistical dimension. A food secure condition provides that food is available at the location where it is actually needed.
- The economic aspect depends on two main factors, namely the fact that food commodities are physically available and the financial ability of households to acquire an adequate amount of food. If also only one of these two conditions is not fulfilled, they determine a food insecure situation. For example, it may be the case that food commodities are physically available, but households cannot afford them.

- The social-cultural aspect covers the limitations to food access induced by socio-cultural barriers. Although available and physically accessible, some food commodities may be inaccessible as a result of gender or social discrimination.

The notion of food access was coined in the 1970s, with a specific reference to the adequacy of food supply level. Later in the years, the evidence showed that even countries with an adequate food supply could register hunger and food insecurity. The focus shifted therefore to the problem of people's access to food. More appropriately, we can nowadays then conclude that food access refers to a person's or household's capacity to acquire food through socially accepted channels.

The third dimension is *food utilisation*, referenced by “*safe and nutritious food which meets their dietary needs*” in the definition. In order to guarantee a safe and nutritious diet, it is not enough for food to be available and accessible: it has to be safe and of good quality. Food utilisation therefore refers to socio-economic aspects depending on knowledge and habits, namely the social role of food and the capacity of a household to accurately consume and allocate food resources. In some cases, assuming that nutritious and safe food is available and accessible, households have to be trained with the aim of optimising their use of food. Several observations, including those of WFP, prove how food insecurity conditions may occur in populations with full availability and access to food but an incorrect utilisation of food commodities (Conte and Al., 2002). In addition, food utilisation can be influenced by health status and sanitation conditions that determine the safety of the food.

As the final dimension, *stability* stands for the temporal element of food insecurity. It refers to the words ‘at all times’, in the WFS definition. This time frame is applied to the three previously mentioned dimensions and serves/acts as a criterion to determine whether the food insecurity is chronic, seasonal or transitory (further details in Paragraph 1.5). In this dimension, it is important to consider some factors that could have an impact on food security stability. These external risks correspond to events and factors such as natural disasters, price volatility, conflicts, and climate change.

### **1.2.2. Notion of Vulnerability**

Another aspect fundamental in framing the concept of food security is the notion of vulnerability. It is intrinsically included in the definition of food security, whose

definition not only covers cases in which food consumption is inadequate, but also the possibility that it will be in the future. In other words, vulnerability stands for the totality of the risks that threaten the food security of people. As stated in the WFP, “*the vulnerability to food insecurity is made of all the factors that constitute a risk for people to become food income secure including factors that affect their capacity to face the difficulty they meet.*” (WFP, 2009) In other words, this notion makes reference to situations in which circumstances or events of shock place at risk future adequate food intake. Different degrees of vulnerability can be identified according to the ability of individuals, households and groups to withstand shock situations. The current well-being of people is defined by food security and poverty, but vulnerability adds a forward-looking perspective to include in the discussion future potential changes in their conditions in cases of adverse events. Furthermore, vulnerability to food insecurity has two components: namely the exposure to shocks and the capability to effectively overcome them. Household food insecurity is therefore determined by both of these components, which consequently influence the quantity of assistance delivered to households. Vulnerability needs to be assessed in the creation of emergency programs and long-term security policies. Such interventions are crucial, especially in the cases of recurrent shocks which greatly threaten households and limit their recovery possibilities. Additionally, recurrent shocks that cause asset divestment make people more vulnerable to risks in the future (CARE 2003).

### **1.3. Evolution of the Concept of Food Security**

Since its introduction to international relations language, the conceptual structure in which scholars discuss food security has evolved in terms of dimensions and approaches. The evolution of this concept could be divided into five main periods, strongly influenced by the global food situation on the time. In this way, it is possible to underline the main milestones with regard to hunger, malnutrition and food security. Analysing the events in chronological order allows us to identify the underlying connections among the different approaches to the topic. We should, though, warn the reader about a possible misunderstanding: while food insecurity made its way into the international relations scene relatively recently, the influence and relevance of this issue can be seen in most of the history of mankind.

### **1.3.1. 1930-1945 Post-World War and League of Nations**

The origins of food security as a well-specified and autonomous concept can be traced back to the Nutrition and Public Health survey, submitted in 1935 by the Health Division of the League of Nations (Shaw, 2007). The survey reported an acute food shortage, and it represented the first overview of the magnitude of hunger and malnutrition phenomena. This data solicited in the international community the need for coordinated intervention policies in the field of nutrition. The Health Division was strongly involved in a collaboration with a group of nutrition experts. The 1930s were characterized by the emergence of nutrition knowledge and the rise of international cooperation for nutrition policies. Two relevant trends of those years also influenced: increasing national prices of food and market controls; and the appealing commodity arrangements between States. Indeed, the recurring implementation of those policies which influenced the food production. Such policies resort to tools such as price control, export support, and credit control. The very first examples of food aid programs started to appear such as the ones carried out by the US after the First World War (Shaw, 2007). The US government approved in 1933 the Agricultural Adjustment Act, with the aim of regulating agricultural activities and their production. The Act created a Community Credit Corporation (CCC) tasked with buying and selling agricultural commodities and making loans to farmers. Further extended by an amendment of the Agricultural Adjustment Act in 1935, its general rationale was to subsidize agricultural exports and stimulate domestic production (Shaw, 2007).

Finally, the creation of the Food and Agriculture Organization represents a milestone in the history of food security. During the Second World War, a conference on Food and Agriculture was held at Hot Springs under the patronage of President Franklin D. Roosevelt. The Hot Springs Conference set the basis for “*a permanent organization in the field of food and agriculture*” (FAO, 1981). One of the involved personalities was Frank McDougall, whose 1935 memorandum contributed to the framing of the modern concept of food security (Boerma, 1968; Phillips, 1981). Formally constituted in 1945, FAO recognised its functions as stated in Article 1 of its Constitution:

1. *The Organization shall collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture. In this Constitution, the term "agriculture" and its derivatives include fisheries, marine products, forestry and primary forestry products.*
2. *The Organization shall promote and, where appropriate, shall recommend national and international action with respect to:*
  - (a) *scientific, technological, social and economic research relating to nutrition, food and agriculture;*
  - (b) *the improvement of education and administration relating to nutrition, food and agriculture, and the spread of public knowledge of nutritional and agricultural science and practice;*
  - (c) *the conservation of natural resources and the adoption of improved methods of agricultural production;*
  - (d) *the improvement of the processing, marketing and distribution of food and agricultural products;*
  - (e) *the adoption of policies for the provision of adequate agricultural credit, national and international;*
  - (f) *the adoption of international policies with respect to agricultural commodity arrangements.* (FAO, 2017)

The founding Conference was organized to discuss strategies to reach freedom from want in terms of food and agriculture. It was recognized that “*freedom from want means a secure, adequate, and suitable supply of food for every man*” (FAO, 1943). Once recognized that the first cause of malnutrition and hunger is poverty, the foundation of FAO is the first attempt at international cooperation for ensuring that every person can have access to needed food for a healthy and active life.

### **1.3.2. 1945-1970 Post World War II, FAO and Food Aid Convention**

The postwar situation stimulated the need to ensure food for everyone on earth. In response to this, global food production increased thanks also to policies that pushed it to overcome consumption and generate surpluses. Yet, the main problem of these governmental interventions was that in importing countries domestic production was stimulated in an attempt to reduce the import demand. However, this did not correspond

to a reduction in productivity and exportable supplies in exporting countries. A part of the overproduction was then destined for food aid intervention, which became the main tool against food insecurity. The consolidation of the scheme arrived on 27<sup>th</sup> October 1960, when Resolution 1496 (XV) on “*the provision of Food Surpluses to Food-Deficit people through the United Nations Systems*” was adopted by the United Nation General Assembly (UN, 1961). This document led to the creation of the World Food Programme (WFP), based on the idea that the solution to hunger was in the rise of developing countries’ economies.

The same period was marked by an increased focus on nutrition from an academic point of view. The large number of research endeavours conducted during those years allowed for a full understanding of the phenomenon and better tools to deal with it. For example, FAO demonstrated the distinction between chronic malnutrition and famine, and the further distinction between chronic and transitory food insecurity. Moreover, nutritionists stated the magnitude of malnutrition at that time, given that it impacted in a greater proportion compared to famine (Simon, 2012). In order to raise awareness of this phenomenon, FAO launched the Freedom from Hunger Campaign (FFHC) initiative. Authorized in 1960 with Resolution 13/59, FFHC was directed to all UN specialised agencies, members and international civil society, composed of NGOs, religious groups and private organizations. The primary aim of FFHC was to shed light on the problem of hunger and to push the idea that integrated efforts are necessary to overcome it. In addition, FFHC contributed to research on the topic with the publication of several studies on the problem of hunger, with a specific focus on the statistical aspects and the importance of nutrition.

Starting from 1967, several Food Aid Conventions (FAC) were approved throughout the years, with the aim to “*contribute to World Food Security*”. (International Grains Council, 1999, p. 4). The first version of the FAC was drafted with the objective “*to carry out a food aid programme with the help of contributions for the benefit of developing countries*” (FAO, 1967). The Convention set a list of essential food items to provide aid to vulnerable populations. In 1999 FAC was substantially changed in a direction of a stronger flexibility, and the list of commodities has been widened to cover also traditional diets of many developing countries.

### **1.3.3. 1970-1990: World Food Conference and international food emergencies**

Facing the global food shortage, causing malnutrition and famine, in November 1974 the UN organized the first World Food Conference in Rome. WFC had been requested by some UN members to create a space in which to deal with future international food crisis. The main objective of the WFC was to agree on measures so that “*within a decade nobody would suffer from food insecurity*” (UN, 1974). During the Conference, the theme of food security was for the first time addressed as a problem of international concern and was covered in a number of recommendations adopted. The major outcome of the 1974 WFC was the establishment of the International Fund for Agricultural Development (IFAD), an international instrument to financially support food production systems in developing countries. Its important role in food security is connected to the implementation of agricultural development projects in vulnerable contexts. In the same year, a Committee on Food Security (CFS) was created as an inclusive platform for stakeholders to cooperate for food security governance. Finally, since the end of the 1980s, history has been marked by events that challenged particularly the question of food security. It is the case of some humanitarian crisis such as the afflux of refugees from Afghanistan and Cambodia, or the drought in Africa. These emergency situations were challenges for the entire international community in how to deal with food security during shocks.

### **1.3.4. 1990 – 2005: Food security flowering**

The following period is considered the ‘golden age’ of food security since great progresses has been made in this field. In the years after the end of the Cold War, a multidisciplinary dimension was included in the approach to food security. Other milestones were the international meetings held in this period the 1993 International Conference on Nutrition, a further attempt to strengthen the link between health and agriculture; and the 1994 World Food Conference, which marked a shift in the food security concept. Indeed, it was broadened with the following dimensions: adequate food production, stability of food supplies and access to available food. Two years later, in 1996, Rome hosted the World Food Summit, whose Plan of Action called for a consistent strategy to cooperate globally and locally to reach collective solutions for food security

(FAO, 1996). Among its resolutions, the Plan of Action foresaw the reduction of malnourished people and in general, the eradication of hunger.

The 2000 UN Millennium Summit was centred on four main themes, namely peace and security, including disarmament; development, including poverty eradication; human rights; and strengthening the United Nations (Shaw, 2007). The outcome of the Summit was the adoption of eight specific targets, commonly known as Millennium Development Goals (MDGs).

### **1.3.5. 2006 - now: 2008 global food crisis and actual challenges**

This period opens with the 2008 global food crisis, in which food and energy prices recorded spikes. This event dramatically highlighted how international agencies and national governments were unable to address food security in a timely and appropriate manner (Headey 2013; Swinnen 2010). Its impact on poverty was exacerbated by the rise and volatility of food prices that lasted over successive decades (OECD-FAO 2009; USDA 2009). In general, this period is marked by factors such as: income growth, climate change, high energy prices, globalization, and urbanization. In particular, climate change is emerging as a factor contributing to hampering food security. In many countries, it is the cause of severe weather effects that have an impact on food availability (IPCC 2012). The food equation is altered also by the urbanization that is taking place in most of the developing countries. In principle, the global urban population is increasing at the expense of the increasingly empty rural areas (Cohen 2006). This shift had an impact also on food consumption and availability, hampering in certain situations food security.

Two more recent events have to be taken into account in this period: the COVID19 pandemic and the war in Ukraine. First, the COVID-19 pandemic crisis had an enormous impact on lives and livelihoods. At the global level, an economic recession from 2008 onwards contributed to the worsening of the poverty level in the world and erased much of the progress made in recent years. Subsequently, the outbreak of the war in Ukraine had a huge impact on global food security, given that it involved two main producers of agricultural commodities. As a consequence, the world experiences increasing uncertainty and shockwaves in food commodities and energy markets (FAO et al, 2023). Facing these recent trends and challenges, food security needs adequate responses and

policies at the local, national and international levels. The mainstream discourse on nutrition should be considered more as a fundamental development goal, and needs to be addressed in a more nutrition-sensitive way (Nabarro 2010; Headey, 2013).

## **1.4. Food Insecurity Indicators**

This paragraph will discuss the main indicators used to measure food security: calorie deprivation, poverty, dietary diversity and subjectiveness. These indicators can be used to assess food insecurity, and consequently, to allocate humanitarian assistance. Since the results of the indicators may in many situations diverge, a country can be evaluated as more or less food insecure according to the weights given to different indicators. Each of these indicators will be analysed taking into account its cross-sectional validity, nutritional relevance and intertemporal validity, to showcase their weaknesses and strengths.

### **1.4.1. Calorie deprivation indicators**

The calorie deprivation indicators are among the oldest indicators of food insecurity. Its measurement is based on different sources depending on the reference level. At the national level, it is computed from national food balance sheets published by the FAO, whereas at the household level, it finds its grounds in economic surveys which collect consumption data, such as the Living Standards Measurement Study (LSMS) conducted by the World Bank. This indicator is the only one that is measured by the FAO exclusively at the national level. This has led to criticisms by several scholars, especially with regard to the FAO measure (Gabbert and Weikard 2001; Nubé 2001; Smith 1998; Svedberg 1999, 2002). In fact, at the national level, the International organisation relies for its survey on national data sources which, differently from household surveys, are often flawed by recall errors and biases (Beegle et al. 2012). Additionally, household survey data allow for different kinds of consumption to be measured, namely food consumed outside the home and food given to animals (Bouis et al. 1992; Bouis 1994; Sibrian 2008; Smith and Subandoro 2007). A further alternative source for these indicators are anthropometric measures, such as the mid-upper arm circumference or the body mass index (BMI), used to monitor nutrition status of child and adult, respectively. The nutritional relevance of the latter, though, is limited because of the complexity and rareness of measurements at

the individual level. Indeed, in some significant circumstances, household calorie intake seems to be a poor indicator of individual nutritional outcomes: the evidence in some relevant countries has shown a poor or no correlation between calorie deprivation and anthropometric indicators of malnutrition (Headey et al, 2013). Another limit of this indicator is its poor performances in capturing issues relative to dietary diversity and macronutrient requirements, which are fundamental aspects of the physical and cognitive development of a person. From the intertemporal validity perspective, this indicator monitors global trends of hunger and household calorie consumption. A further argument observes that calorie availability itself is a particularly weak indicator of food security trends, due to the limited price elasticity of staple foods (Jensen and Miller, 2010). This principle has theoretical and empirical grounds. First, according to Jensen and Miller (2010), the experience of a loss of income determines in poor people a transition of consumption, “*from high-value calorie sources (e.g. meat) to low-value calorie sources (e.g. rice)*”. Consequently, calorie consumption may not change considerably in relation to the decline of the total food expenditure. Second, in the cases of self-production of staple food, a response to the extreme rise of food prices could be the implementation of that activity with the aim of a major own consumption. Third, calorie consumption levels may remain unchanged since people decide to sacrifice non-food expenses, while keeping the food budget almost unmodified. In the first two cases, in response to shocks, calorie consumption can be maintained as a result of a decrease in dietary diversity. Differently, the third points to shock effects partially altering non-food expenditure. As a result, calorie deprivation indicators are not good predictors of shock effects, with the possible exception of the worst food shortages, namely famines.

#### **1.4.2. Monetary poverty indicators**

The monetary poverty indicator is indirectly correlated to people’s economic access to food. It is considered a relevant indicator by many economists since there is a correlation between the rise of food prices and the condition of poverty. A rise in food prices does not itself provoke a reduction in calorie consumption, but it could significantly impact non-food expenditure, exacerbating the condition of poverty of households. With regard to its cross-sectional validity, an effective use of the indicator requires matching the different currencies and purchasing powers around the world. For this reason, household

expenditure undergoes purchasing power parity (PPP) conversion in order to refer to a common international currency (Deaton 2010; Deaton and Dupriez 2011).

### **1.4.3. Dietary diversity indicators**

The class of indicators relative to dietary diversity is considered effective and performing for two main reasons. First, macro- and micro-nutrients are cornerstones of the definition of food security (FAO 1996). Therefore, dietary diversity refers to a balanced diet, e.g., consuming both types of nutrients (Ruel 2003). Second, in principle, individuals will opt for foods with higher value of macronutrients, such as meat, fish or dairy products, when they meet their daily calorie requirements. This is explained by the economic theory of demand and Maslow's psychological theory of the hierarchy of needs (Maslow, 1943). This aspect of nutrition emerged in health and nutrition surveys, such as the Demographic and Health Survey or the WFP Emergency Food Security Assessment (ESFA). This class includes the following indicators: the food variety score (FVS), which records the number of different food items consumed; the dietary diversity score (DDS), relative to the different food groups; and the food frequency score (FFS), that show the frequency of consumption of food in a given period (Headey et al, 2013). Furthermore, according to Jensen and Miller (2010), dietary diversity improves and increases as the economy grows, indicating that this class of indicators are excellent for monitoring trends in food security.

### **1.4.4. Self-reported indicators**

Lastly, it is important to mention the subjective indicators, which are mostly survey-based or self-reported. The main advantage of these indicators is the affordability in terms of survey expenditure and time request since subjective data are very easy to collect. Moreover, personal experience adds a psychological dimension to food insecurity that is usually lacking in the other indicators. Surveys can be conducted at the individual level as well as at the household level; household surveys are more common. An emerging problem of this class of indicators regards response biases which differ the individual and household information. Self-reported responses have to take into account biases derived from the feelings and emotions of the surveyed person. This led many economists to be sceptical about the validity of subjective data. Another issue relates to cross-cultural inconsistency since the responses to subjective surveys are hardly comparable (Deitchler

et al., 2010). With regard to the ability of subjective indicators to capture food insecurity, some field research projects (Osei, et al. 2010; Cordeiro et al. 2012; Ali, et al. 2013) have shown how surveys, such as the HFIAS, are nutritionally relevant in cross-sectional comparison.

## **1.5. Classification of Food Insecurity**

After having considered the measurement and all the indicators of food security, specific types of food insecurity can be categorized. In fact, the classification of food security is more easily measured in its negative terms with specific reference to causes and factors that provoke the situation. When analysing food insecurity, one will take into account both the magnitude of the problem and the likelihood that it will occur. The distinctions made in this paragraph will follow two different criteria: temporal and intensive.

### **1.5.1. Temporal aspect: transitory of chronic food insecurity**

First, we can distinguish between chronic and transitory food insecurity. Both refer to an inability to access food properly in order to meet basic food consumption needs, but they differ in terms of duration. In fact, former is often explained in terms of structural deficiencies and associated with concepts such as ‘poverty’ and ‘inadequate resources’ (WFP, 2006). It has been stated that a chronic situation of food insecurity “*is usually the result of persistent structural vulnerability*” (FIVIMS 2002). In a situation of chronic food insecurity, households have to face a persistent inability to consume enough food to meet minimum requirements. By contrast, transitory food insecurity consists of fluctuations of food availability or temporary food deficit, induced by short-term shocks, which make households temporarily unable to guarantee their minimum food intake needs (WFP 2005). According to the World Bank, “*the major sources of transitory food insecurity are year-to-year variations in international food prices, foreign exchange earnings, domestic food production and household incomes*” (World Bank, 1986). The two more categories are not independent: it is plausible that in certain situations a change could occur, determining a transition from transitory to chronic. The repeated occurrence of transitory shocks increases the severity of food insecurity, worsening the condition of households and letting them fall below the minimum consumption threshold. As a matter of fact,

series of short shocks cause chronic poverty and food insecurity (WFP, 2006). Additionally, aspects of chronic and transitory food insecurity can overlap, leading to situations of composite food insecurity. This concept applies to households not only that experience chronic food insecurity, but are also subjected to transitory food shocks.

Again, considering the temporal aspect of the subject, it is also possible to identify the so-called seasonal (or cyclical) food insecurity, that takes place “*when there is a cyclical pattern of inadequate access to food (e.g. food shortages in pre-harvest period)*” (FIVIMS 2002). Due to its limited duration, it is often associated with transitory food insecurity, but the difference lies in the much higher predictability, due to the cyclical nature of the events.

### **1.5.2. Intensity aspect: moderate or severe food insecurity**

Alongside the temporal aspect, food insecurity can also be defined according to its intensity. The severity ladder starts with a moderate level of food insecurity, in which households experience uncertainty in accessing food and scarcity in quality and quantity of food. In order of increasing severity, people are in a condition of severe food insecurity if they exhaust their food stock, being forced to skip meals for one day or more. In a situation of severe food insecurity, a humanitarian response is required to assess the causes of food shock and disaggregate its impact on individuals and households. (WFP, 2006). Transitions from moderate to severe situations may occur in cases of extreme vulnerability. In other words, the majority of those who are more exposed to risk from food crises already struggle to survive in harsh circumstances, to the extent that even a slight shock can compromise their capacity to cope. The change of intensity is often marked by slow-onset processes, namely of climatic or pandemic nature, which push households below the food security threshold. Finally, there are also cases in which food insecurity is determined by political causes, such as conflicts, and the severe conditions might be intentionally perpetrated on specific cultural or social groups (WFP, 2006)

## **1.6. Methodological Implications for Food Security Assessments**

It is worthwhile to have a look at the different ways in which the food security phenomenon can be measured. Just as there is no univocal definition of food security, the different measurements can be employed depending on the focus and indicators being

considered. A first example is the Prevalence of Undernourishment (PoU), through which FAO estimate the volume of people without regular access to adequate calories. This measure has been adopted as Sustainable Development Goal (SDG) Indicator 2.1.1 in the 2030 Agenda for Sustainable Development. Based on a statistical methodology, PoU is produced by the Statistic Division of FAO, which bases its work on country demographics data on food availability, food consumption and energy needs (FAO et al, 2023a). In this approach, hunger is measured in terms of chronic inability to meet minimum energy needs. As per Headey, five different categories of assessment methodologies exist (Headey et al, 2013); they are discussed in the following.

### **1.6.1. Dietary scores**

Dietary diversity scores correspond to the variety of food items consumed in a household. Food security is robustly assessed based on the quality of food diets. According to different studies, socio-economic position and household food security are related to an increase in dietary diversity (Hoddinot and Yohannes, 2002; Hatloy et al., 2000). This measurement leads to the classification of households into four different groups, sorted from low- to high-dietary diversity. The criteria that identify each household group are the level of dietary diversity (number of different food items) and their quality (WFP 2005b).

### **1.6.2. Coping Strategies Index**

Given the principle that food insecurity is a threat to both livelihood and lives, these two aspects should be protected in the intervention. Created by CARE, the Coping Strategies Index (CSI) is an effective instrument to assess the food security condition of a household. The idea behind this measure is that the quantity and the quality of strategies have an impact on the improvement or deterioration of food security status. In this case, the household is interviewed with a short questionnaire that focuses on whether they are implementing coping strategies or not and on their frequency. Three different categories of coping strategies are taken into account, namely dietary changes, increasing access to food, and rationing food (WFP, 2006).

### **1.6.3. Household Economy Approach**

The Household Economy Approach (HEA) examines the livelihood strategies that are adopted with the aim of securing food access. In a given reference year, this measure takes into consideration households from different wealth levels. Through the HEA, it is also possible to assess the impacts of shocks in terms of changes in food consumption and to consider the shopping strategies to face the shocks, such as dietary adjustment and alternative sources of food. Advantageously, this approach allows as well to disaggregate recommendations for intervention, depending on the specific food insecurity situation.

### **1.6.4. Household self-assessment**

Household self-assessment has been used in field studies to assess household food insecurity (Devereux et al. 2003). In this method, a description of the food security situation is depicted at different points in time by the household, which has to self-categorise in one of the following levels:

- Doing well: the household can easily afford to independently satisfy its food needs, but also saving and affording extra expenditures;
- Doing just okay: merely meeting the basic needs;
- Struggling: households have to lean on external support (e.g. from the government or community) to meet their basic food needs.
- Unable to meet household needs: support from government and community is unavoidable or inadequate for their survival (WFP, 2006)

### **1.6.5. Famine scale**

The famine scale is a methodology developed by the scholars Howe and Devereux (2004) whose aim is also to identify different degrees of food insecurity. Through a combination of quantitative (e.g., crude mortality rates, CMR) and qualitative indicators (e.g., coping strategies or distress migration), it is therefore possible to monitor the food insecurity status. The advantage of this measure is its universality since the thresholds are objectively recognised, being based on malnutrition and mortality outcomes. In this way, problems of methods discrepancies are avoided. An example of the implementation of this methodology is taking place in Somalia by the Food Security Assessment Unit

(FSAU), which had the duty to monitor the food insecurity levels in a four-levels ladder: non-alert, alert, livelihood crisis, and humanitarian emergency (WFP, 2006).

A general comparison between the five latest methods shows that they share characteristics making the assessment of food security status robust. More specifically, dietary diversity score, CSI and household self-assessment have in common the rapidity of the assessment, allowing for immediate intervention in troubled households. Another advantage of these methods is the simplicity and cost-effectiveness of their administration. Yet, their application presents some limits, such as their ineffectiveness as an absolute measure. In fact, all three perform better as a relative measure. In addition, their measure is time-local, representative of a given year or period of time. For the purpose of having a more complete overview of the phenomenon, their administration should be repeated over time, so that it could be possible to assess food insecurity as chronic or transitory. One final remark is that these three measures lack contextual information, that is though fundamental in interpreting household diets and coping strategies. Unlike these three methods, HEA offers a conceptual connection between causes and consequences, allowing for permits adequate interventions in different food insecurity situations. Indeed, as already mentioned, HEA is able to foresee differentiated programming recommendations. However, HEAs have a higher complexity in their administration in terms of time consumption and expensiveness. In these cases, longer work in the communities is therefore required as well as careful training.

According to the FAO guidelines, dietary diversity is a crucial factor in measuring food insecurity, as a qualitative measure of food consumption. The organization supports, indeed, the use of a diversity dietary questionnaire because of its rapidity, affordability and user-friendliness. The questionnaire is applicable in any location or culture, but for its complete effectiveness, it needs an adaptation to the local context. It has been used for the data collection of the FANTA Household Dietary Diversity Score Indicator Guide (Swindale and Bilinsky, 2006). A specific case of dietary diversity questionnaire is the one used to assess the Food Insecurity Experience Scale (FIES), recognised as SDG Indicator 2.1.2 in the 2030 Agenda for Sustainable Development. Its objective is to monitor “*access by all people to safe, nutritious and sufficient food all year round*”. Thanks to this measure it was possible to determine that 2.4 billion people suffer from

food insecurity worldwide. The FIES questionnaire consists of eight direct questions to which the respondent, whether an individual of a household, has to answer yes or no. The questions focus on food-related behaviours and conditions, to assess the food insecurity level. This statistical scale has been designed to measure observable traits, namely health-related conditions and psychological behaviours. It is also possible to integrate this questionnaire into other types of population surveys.

One final measure of food security is the Integrated Food Security Phase Classification/Cadre Harmonisé (IPC/CH). Its use is prioritized in the context of food crises. The IPC/CH is useful for estimating food insecurity conditions in crisis hotspots (FAO et al, 2023). In this case, the assessment has no statistical basis, rather it is reached through the joint work of country analysts based on various sources.

### **1.7.Official Reports for Food Security**

Food security measures are available and collected periodically in official reports. The FAO each year publishes the State of Food Security and Nutrition (SOFI). Here they consider the progress made at global, regional and national levels with respect to the two 2030 Agenda targets: ending both hunger and food insecurity, SDG Target 2.1, and all forms of malnutrition, SDG Target 2.2 (FAO et al, 2023). This report sheds light on factors that are slowing down the realization of Target 2.1, namely conflicts, climate change and growing inequalities (FAO et al, 2023). In addition, it also analyses current megatrends and the relative challenges and opportunities, to highlight their contribution in meeting the targets. In the 2023 SOFI edition, the megatrend under investigation is urbanization and its implication on nutrition (FAO et al, 2023).

Another relevant report on food security is the Global Report on Food Crises (GRFC), published by the Food Security Information Network (FSIN). As the name suggests, it has a narrower perspective on countries that are facing food crisis conditions. The report is the result of a joint work of the United Nations, the European Union, individual states, and Non-Governmental Organizations (NGOs) in order to cooperate in food crisis situations. Its main aim is therefore to provide rapid humanitarian intervention in the cases in which food insecurity has been assessed through the IPC/CH.

### **1.7.1. Creation of a mapping system**

The international community, e.g. governments and civil society organizations, has recognised the necessary creation of a mapping system of food insecurity, in order to better identify areas and populations affected by food insecurity and vulnerabilities, and to avoid the duplication of efforts (FAO, 1997). FAO played a crucial role in this process towards the creation of a Food Insecurity and Vulnerability Information and Mapping System (FIVIMS). It required a technical consultation, held in 1997, as a joint work between different actors. There were the main international organizations, namely FAO, UNICEF, UNHCR, IFAD, World Health Organization (WHO); two non-governmental organizations and fifteen individual experts (FAO, 1997). The consultation revolved around three main points of action with the aim of assessing hunger and malnutrition, structural vulnerability, and acute vulnerability for relief operations. The main problem they faced was the diversity of factors causing vulnerability and the availability of data, but the solution proposed by the consultation was to focus on indicators like income, food production, food price, income distribution, and impoverishment (FAO, 1997). As a result, FAO and WFP started collecting hunger data and publishing every year the ‘Hunger Map’, which since 2020 is also available in live format. With this interactive tool, users can overlay different aspects to analyse their correlation, for example conflicts and famines. The displayed results are a combination of various indicators and metrics, relative to more than 90 countries. Data warehouse addresses topics from different fields, covering population density, vegetation index, macroeconomics indicators, and undernourishment (WFP n.d.).

### **1.8. Policy Responses and Intervention to Food Insecurity**

Food insecurity assessment is conducted with the aim of effectively timing measures that could alleviate the situation. The deterioration of food security indicators provoked by food crises can in this way lead to humanitarian intervention. The evidence from the history of food security proves that an effective reaction to food security crisis needs a coordinated network of operational and substantive bodies. Unfortunately, a single agency has nowadays a limited sectoral mandate and as a result cannot be a complete supervisory authority (Simon, 2012). Policy instruments to face food insecurity situations are multifaceted and distinguish themselves in relation to the domain that is affected.

Their general aim is to stimulate food supply and/or real food demand. It is possible to accomplish this through food-based (e.g. food transfers), cash-based (e.g. cash transfers) or market-based (e.g. food price subsidies) measures (WFP, 2006). FAO also suggested a twin-track approach, according to which the situation of vulnerability is to be addressed by having two clear objectives. First, with regard to transitory food insecurity, a mechanism has to be implemented to grant people available food and accessible prices and safety nets are required to prevent future crises. In cases of chronic insecurity households, on the other side, must have facilitated access to resources that allow them to exit their condition in a sustainable way (FAO, 2005). An example of intervention in emergency situations is food aid, with the clear goal of mitigating food insecurity status (WFP n.d.). Relevantly, food assistance for an adequate and effective intervention had to take into consideration the severity of food insecurity. Indeed, rather than considering the duration of food insecurity, it is more urgent to tackle the gravity of the food gap. The duration is more important in terms of beginning and end since they define the programmatic transition points (CARE 2003). In other words, duration and intensity are two fundamental dimensions to be considered jointly. Another fundamental aspect of the most optimal implementation is the access to baseline data on post- and pre-crisis conditions. Through their comparison, it is possible to assess the underlying causes of insecurity and plan the correct intervention. In addition, decision-makers have to deal with three dimensions of information: cross-sectional comparisons considering different social groups and regions; intertemporal comparison between long-term trends and the impact of shocks; and nutritional relevance through food security indicators (Headey et al, 2013).

However, the implementation of an intervention is not riskless. According to Darcy and Hofmann, aid allocation can be distorted when donor attention for severe food insecurity situations is insufficient. It is the case of the so-called '*normalisation of crisis*' (Bradbury, 2000), namely to consider severe food insecurity as acceptable only because EFSA is not triggered. Another problem concerns households that live in cycles of food security vulnerability, where an appropriate remedy would not be is not merely to establish pre-crisis conditions, but rather to tackle the root causes of their chronic vulnerability. In cases of chronic food insecurity, another challenge is to equilibrate the emergency relief period and the alternative programmes. Indeed, exit from food aid

programming oftentimes is critical since “[p]rolonged and regular food aid to countries suffering persistent poverty or conflict will not solve the underlying causes of vulnerability, and may even increase it” (DFID 2002).

Concluding, such broad and comprehensive presentation of the food security theme sheds light on where improvements still remain needed to ensure that the right to food is enforced and effective. At the same time the chapter sought to understand the strengths and limitations of the main interventions implemented so far. In the next parts of this thesis, microfinance will be analysed, specifically as a measure to ensure food secure conditions.

## CHAPTER TWO – MICROFINANCE FOR FOOD SECURITY

### 2.1. Microfinance: definition and evolution

Muhammed Yunus, a Bangladeshi social entrepreneur and economist, once stated: *“It’s not people who aren’t credit-worthy. It’s banks that aren’t people-worthy”* (Yunus, 2003). He based his research and activity upon this assumption corroborated by his personal experience in Bangladesh. He founded the Grameen Bank in 1983, with the aim of removing hunger and poverty from people’s lives. In Yunus’ perspective, these conditions are not intrinsic parts of human life, and a poverty-free world is possible. Yunus supported the right to access credit for poor people, whether they are economically active poor or indigent (Robinson 2001; Daley-Harris 2005; Goldberg et al, 2006). According to him, the poor are bankable and, under appropriate conditions, they are able to use financial services effectively. Based on these principles, microfinance could be defined as a *“range of financial services for low-income people, including credit, savings, insurance, and money transfers”* (Odell, n.d.). Hence, there is a huge variety of financial services that fall under the label of microfinance (more details in Paragraph 2.2). They all share the aim of not being *“simply means to alleviate poverty, promote local economic development and engender social progress, but the basis of a more peaceful and harmonious development path for the world”* (Bateman et al, 2019). Indeed, evidence shows that microfinance clients frequently achieve income security and health improvements thanks to transparent, inclusive and equitable financial services (BMZ, CGAP, and IFC, 2011; Leatherman et al., 2011). Microfinance financial services are characterised by seven specific features: *“small transactions (whether loans, savings or insurance); loans for entrepreneurial activity; collateral-free loans; group lending; focus on poor clients; focus on female clients; market-level interest rates”* (Goldberg et al., 2006). The efficacy of microfinance projects depends on how and why poor people needs those services. Authors have affirmed that poor people resort to financial services of any nature to manage their financial lives (Collins et al. 2009; Demirgüç-Kunt and Klapper 2012).

After their rise in Bangladesh thanks to Yunus, other scholars supported microfinance ideas. In particular, De Soto emerged with the idea of the poor considered as ‘entrepreneurs in waiting’ (Bateman et al., 2019). Indeed, he believed a more liberalized financial market would permit wider financial participation. Through a self-

employment process, poor people would be able to alleviate their poverty condition. Both scholars agreed on the fact that financial inclusion for poor people was frequently hampered by unnecessary regulations and bureaucracy. These limits did not allow poor people to have the start-up capital necessary to launch the business and reach autonomy. Their primary effect was therefore the limitation of ideas and skills of the poor (Bateman et al., 2019). On the contrary, their participation in the financial market marked an improvement in individual and household welfare. By establishing a microenterprise or self-employment venture, poor people could manage to increase their income, smoothen consumption and deal with risks (Ledgerwood, 2013). The international acknowledgement of these theories arrived when in 1996 the then-president of the World Bank, James D. Wolfensohn, stated: “*Microcredit programmes have brought the vibrancy of the market economy to the poorest villages and people of the world. This business approach to the alleviation of poverty has allowed millions of individuals to work their way out of poverty with dignity*” (Yunus, 2003). The international attention towards microfinance increased thanks to the UN International Year of Microcredit in 2005, the first Microcredit Summit Campaign took place collecting more than 3,500 Microfinance Institutions (MFIs) from all over the world (Odell, n.d.; Daley-Harris, 2009). A further milestone was marked when in 2006 Yunus was awarded the Nobel Peace Prize. In subsequent years up to the present, “*the industry has grown exponentially, in terms of both the number of clients as well as the number and type of providers and products*” (Ledgerwood, 2013). According to 2011 data, MFIs worldwide are more than 3500 and their activities have reached over 150 million households (Leatherman et al., 2011).

Microfinance theories were also raised in opposition to foreign aid practices which were widespread at that time. In fact, these international operations often did not pinpoint the poor’s needs and limited themselves to charitable actions, without the will to assess and target the real roots of poverty and hunger. Moreover, these dimensions have to be approached with a human rights perspective, avoiding considering economic growth as the main priority. Unfortunately, the question has been often considered in terms of Gross National Product (GNP) growth, which has been proven not to always be correlated to an improvement in poverty conditions (Yunus, 2003). Microfinance was seen as the right approach to deal with poverty situations, even though there was solid awareness that microcredit alone could not eradicate poverty. Indeed, it represented only one of the

possible ways to facilitate economic development and poverty eradication (Ledgerwood, 2013). As per Yunus, “*Credit is one door through which people can escape from poverty. Many more doors and windows can be created to facilitate an easy exit*” (Yunus, 2003). The solution leans on a new conceptualization of poor people and the relative application of policies.

Nowadays the positive impact of microfinance has not stopped. It is widely recognized that “*the shift to financially inclusive systems, based in part on better understanding impact, appropriately broadens the objectives beyond economic development and poverty alleviation to include the ability of poor women and men to better manage risks, smooth income, invest in productive activities, and build assets*” (Ledgerwood, 2013). Financial inclusion refers to the possibility that each person has access to financial services in accordance with their needs. Without being limited to the actions of MFIs, financial inclusion fulfilment involves the improvement of the services’ nature (both in terms of frequency and quality) and the thorough ability of providers to satisfy clients’ needs. Over the years it has, therefore, become a development priority (Ledgerwood, 2013) to the extent that one can refer to a process of financialization. According to Epstein's definition, financialization refers to “*the increasing importance of financial markets, financial motives, financial institutions, and financial elites in the operations of the economy and its governing institutions, both at the national and international levels*” (Bateman et al., 2019). This global interest has led in some instances to a commercialization of microcredit, threatening its non-profit nature.

Looking forward, microfinance is still experiencing an evolution following the new financial instruments available on the market and the evolving conditions of the poor. With regard to new financial services, technology is playing an important role in reaching many more people. Innovation, therefore, stands in new non-traditional providers, such as “*mobile money, biometric identity systems, smartphones, and wireless broadband Internet access*” (Ledgerwood, 2013). Despite new technological tools, nowadays the most pressing challenge for microfinance is tackling the steep increase of inequalities worldwide.

### **2.1.1. The mission of Microfinance**

*“The mission of microfinance and microfinance intuitions (MFIs) is to contribute to sustainable development, social welfare and progress (Hassan et al., 2011; Hudon, 2009; Schreiner, 2002) by speeding up financial development and economic growth (Delia, 2011; Lopatta and Tchikov, 2016; Swamy and Tulasimala, 2011; Vanroose and D’Espallier, 2013) and accounting for poverty alleviation (Barr, 2005; Casselman et al., 2015; Imaiet al., 2012; Kleynjans and Hudon, 2014; Mazumder, 2015; Morduch, 1999; Prior and Argandoña, 2009)”* (as stated in Lopatta et al., 2017). In other words, MFIs have the role of development organizations whose objective is to reach financially excluded markets with the aim of boosting sustainable development. This is reflected in the two main long-term microfinance objectives, namely outreach and sustainability. The first one relates to the microfinance commitment to serve those classes of population that are generally unserved by traditional financial institutions. While the second concerns the necessity that financial costs are covered by the generation of incomes. These two goals can be further elaborated in five main pillars: *“to reduce poverty; to empower women or other disadvantaged population groups; to create employment; to help existing businesses grow or diversify their activities; to encourage the development of new businesses”* (Ledgerwood, 1999). From a more economic perspective, the World Bank has pointed out three more objectives: *“to create employment and income opportunities through the creation and expansion of microenterprises; to increase the productivity and incomes of vulnerable groups, especially women and the poor; to reduce rural families’ dependence on drought-prone crops through diversification of their income generating activities”* (Ledgerwood, 1999; Webster, Riopelle, and Chidzero 1996) Remarkably, objectives should also adapt to specific needs of the clients to maximize financial sustainability and development. Microfinance programs have to be coherent with their long-term objectives in their entirety.

### **2.1.2. Microfinance target market**

A key part for the fulfilment of microfinance is represented by the market targeting process. The identification of the most suitable clients depends first of all on MFIs objectives: different institutions could address a specific group of the population. Other criteria have a socio-economic nature: gender, geographic area, religion, ethnicity and, of

course, poverty status (Ledgerwood, 1999). Market targeting can be differentiated into two broad categories: direct and indirect. In direct targeting, credit is allocated in support of a specific economic sector or of more vulnerable parts of the population. This is based on the fact that credit accessibility is particularly limited to certain sectors or social groups. In particular, agriculture and fishing oftentimes can be particularly margined sectors; while the poor and women can be the most discriminated against. Indirect targeting refers instead to financial services, through which one can reach people excluded from traditional finance. More precisely, “*indirect targeting focuses on those who cannot take advantage of income-generating opportunities because of market imperfections or other barriers to financial services*” (Ledgerwood, 1999). The two categories do not preclude the reached group of the population, but they differ in their approach. Thus, direct targeting focuses on the eligibility criteria for microfinance participation, and indirect on product design (Ledgerwood, 1999).

### **2.1.3. Impact assessment and evaluation methods**

The impact evaluation is a fundamental part of the microfinance provision, both regarding programs and products. Effectiveness and impact of a microfinance project need to be assessed so that it is possible to affirm if its services have had the desired outcome. Given that the main goal of microfinance is poverty eradication, microfinance programs are evaluated in terms of their effectiveness as an economic development tool. The measure takes into consideration income generation, as well as improvements in health, education, and gender equality (Odell, n.d.). Impact evaluations contemplate three different dimensions: economic, sociopolitical, and personal (Ledgerwood, 1999). Policymakers and donors strongly need these evaluations, in order to maximise the impact of the allocated financial resources. More precisely, Goldberg et al. (2006) found four main reasons which motivate the impact evaluations. First, these evaluation processes correspond to market research, through which client needs and products can be better defined and more appropriately matched. Second, the support through private or public funds needs to be justified. Policy makers, as well as development agencies and foundations, use these impact evaluations on clients' life as a term of comparison with other possible interventions. The underlying reflection is whether the same investment would be more convenient and profitable if allocated differently. Third, going beyond the

positive effects on participants' lives, impact evaluations help to find an optimal correspondence between financial products and client categories. In addition, these measurements provide a benchmark of MFIs' performance. Lastly, evaluations have to gather the diversities of product design and client classes. Therefore, they can adapt to their dimension and their scope (Goldberg et al., 2006). In addition, Literature on the macroeconomic effects of microfinance is scant. *“There are theoretical arguments that if microfinance is successful at any one of its aims (raising incomes, promoting entrepreneurship, encouraging savings) then positive effects on macroeconomic measures (rate of economic growth, per capita GDP, economy-wide measures of poverty and inequality)”* (Odell, n.d.).

The impact and effectiveness of microfinance are widely recognized and attested by a multitude of impact evaluation studies (Goldberg, 2005). More in detail, microfinance can be evaluated in three dimensions: program, product or process, and policy (Goldberg et al., 2006). First, program evaluations attest to the effectiveness of programs in terms of clients' welfare improvement. It is the most common impact evaluation used by MFIs. Second, product or process evaluation focuses in each MFI on the implementation of a specific process or product and its relative effectiveness. For example, it refers to new programs or processes that are tested on a sample on clients. Lastly, policy evaluations refer more broadly to macro-level policies, namely bank regulations (Goldberg et al., 2006)

Moreover, the Grameen Foundation stated ten observable indicators to determine whether the poverty condition of a household has improved. The optimal final performance occurs if these ten points are accomplished, representing a good pathway in the evaluation of microfinance effectiveness. Yet they do not lead to a sufficient and self-standing answer to the basic question: does microfinance work? Indeed, the preferable analysis should take into consideration a counterfactual, i.e. a sample of households living in the same environmental conditions as the clients. In this way, it would be therefore possible to assess the real impact of microfinance programs (Goldberg, 2005).

## 2.2. Financial Providers of Microfinance

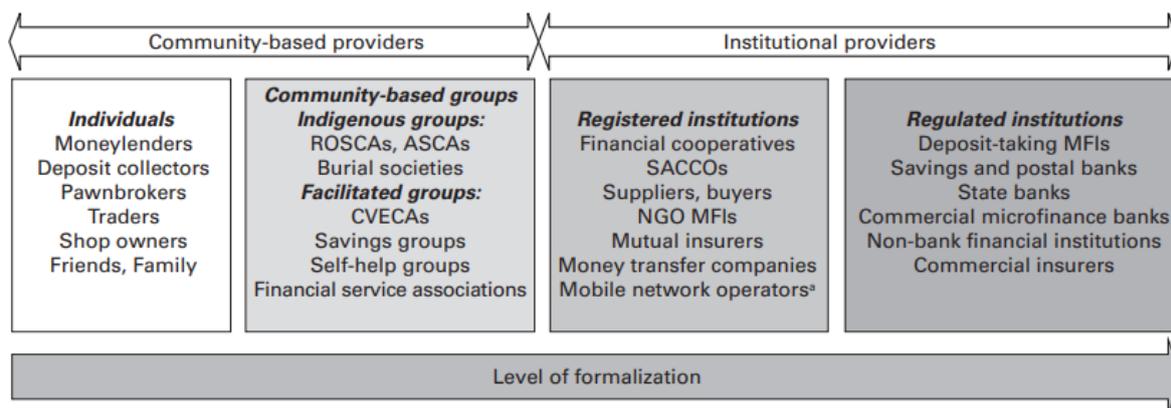
<p>Formal institutions</p> <ul style="list-style-type: none"> <li>■ Public development banks</li> <li>■ Private development banks</li> <li>■ Savings banks and postal savings banks</li> <li>■ Commercial banks</li> <li>■ Nonbank financial intermediaries.</li> </ul> <p>Semiformal institutions</p> <ul style="list-style-type: none"> <li>■ Credit unions</li> <li>■ Multipurpose cooperatives</li> <li>■ NGOs</li> <li>■ (Some) self-help groups.</li> </ul> <p>Informal providers</p> <ul style="list-style-type: none"> <li>■ (Pure) moneylenders</li> <li>■ Traders, landlords, and the like (as moneylenders)</li> <li>■ (Most) self-help groups</li> <li>■ Rotating savings and credit associations (work groups, multipurpose self-help groups)</li> <li>■ Families and friends.</li> </ul>
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**Figure 1** - Classification of Financial Providers  
(Ledgerwood, 1999)

Corresponding to the wide range of financial services under the ‘microfinance’ umbrella (further analysed in Paragraph 2.2), there is also a multitude of financial providers. This variety is connected to the evolution experienced by microfinance over the years, aimed at properly meeting the financial needs of low-income people. Access to credit is guaranteed by a series of financial providers that can be categorized by different aspects. The first distinction depends on their belonging to the public or private sector. With regard to the public sector, governments can implement microfinance programs which contribute to the boosting of entrepreneurship and economic development. Critics say that those programs are often misinterpreted as social welfare, causing issues related to their long-term sustainability. Another argument supports the idea that governments should sustain microenterprises and private MFIs rather than provide credit directly to poor people (Ledgerwood, 1999). On the

other hand, private-sector MFIs usually correspond to indigenous providers and NGOs which have a better promotion of enterprise development (McKinnon, 1973; Shaw, 1973). Their programs are most of the time connected to donors whose contribution is fundamental for technical assistance and funding.

Similarly, to the classification according to the levels of formalization depicted in Figure 1, Figure 2 provides a clear representation of the two main categories of financial providers: community-based and institutional. The main distinction between these two classes is the grade of formality that characterizes the financial service delivery.



**Figure 2** - The range of financial service providers (Ledgerwood, 2013)

### 2.2.1. Community-based providers

As the name suggests, community-based providers can offer higher proximity and accessibility, since they are frequently informal bottom-up initiatives. Their validity and success are determined also by the flexibility of their products, which can adapt to cash flow instability while supporting regular savings and loan restitution. According to specific features, they can be further divided into two sub-categories: indigenous and facilitated.

The former refers to individuals or groups within a community that offer credit services independently managing their own capital. Emerging without external input, their activities can provide convenient and rapid solutions due to the closeness to the clients. Individual providers include “*moneylenders, deposit collectors, informal traders, pawnbrokers, store owners, and informal money transfer providers*” (Ledgerwood, 2013). Other examples of indigenous group providers, Ledgerwood (2013) refers to Rotating Savings and Credit Associations (ROSCAs), Accumulating Savings and Credit Associations (ASCAs) and burial societies. The group dimension allows them not only to offer credit but also financial expertise: Indeed, group members can encourage reciprocally towards a wiser use of credit. The group has also a ‘safety net’ function, enabling members to cope with unexpected shocks. In particular, ROSCAs refer to saving clubs that exist in many developing countries and that correspond to the simplest form of financial product. Known by different local names, they all share the same operational structure: the saving group is composed of people who agree to regularly contribute a given amount of money. The total sum is allocated each round to a different person in

such a way that everyone can have access to the credit. In principle, everyone contributes with an agreed amount, then each member receives the same sum for their specific needs. Once the rotation is completed, the process can be relaunched or dismissed by group choice. Time restriction - since normally a ROSCA rotation lasts 12 months maximum - is one of the advantageous aspects of this financial mechanism. In this way, withdrawal risks and potential losses are mitigated. The success of the scheme is determined also by the peer pressure that members experience in respecting the payment schedule. Participation in the ROSCA groups is therefore recommended to those who can guarantee the commitment and the regular payment. The mechanism is based on trust, and defaulting members can be subjected to unpleasant treatment by the other members. Furthermore, *“the inability to keep up the repayment schedule is a very good indicator that one’s financial position is not strong enough to maintain the asset once it is acquired”* (Ledgerwood, 2013). Ledgerwood considers this financial service as suitable for poor people due to its various features. First, group members do not require bookkeeping to participate, bypassing illiteracy problems. Second, ROSCAs are costless since there is no dispersion of capital: the credit concretely goes from the depositors to the taker. This makes ROSCAs the *“swiftest and cheapest form of financial intermediation”* (Ledgerwood, 2013). Lastly, as previously mentioned, ROSCAs are particularly advantageous for poor people due to their closeness and economic convenience. With regard to ASCAs, they have a higher complexity in their group saving mechanism. Analogously to ROSCAs, group members contribute regularly but they can have automatic access to the total sum., On the contrary, the deposit is allocated at each meeting, and it is distributed depending on the lending purpose of the taker. This financial service is based on the principle that every member saves, but not everyone borrows. The loan is granted to people who actually need it and who can afford the restitution over time. Even in this case, ASCA members share a high level of confidence in each other, since all participants have to be confident that the loan will be repaid. ASCAs and ROSCAs share some positive points due to their group-based nature. Money management services result in being more convenient in group-organized cases. The self-organization of users allows them to be independent from others’ constraints and to have direct access in terms of time and space. In addition, the group dimension allows for transparency and

negotiability. As the main source of credit, participants have the right to raise claims and proposals to the whole group.

Facilitated providers refer exclusively to groups which do not enjoy complete autonomy, since they receive external assistance. NGOs and governments, in particular, usually tend to provide the same kind of technical assistance and training when allocating credit. In this way, poor people can benefit not only from financial inclusion, but also from instruments (good governance, recordkeeping, and security) and know-how to improve their lending process. Facilitated providers articulate them in different forms, namely the largely widespread Self-Help Groups (SHGs), the Savings Groups (SGs) and community associations. In SGs' activity, the contribution of local and international NGOs is relevant from different points of view: they foster community participation and provide training courses and materials; they have a role also as supervisors for the launching period. Also in this case, being community-based providers encourages democratic participation and transparency, with the aim of creating a safe saving environment. Whereas SHGs correspond to 10-person groups which follow regular saving schemes. Similarly to ASCAs, member groups borrow pooled savings. The participation in SHGs is open and accessible to all social groups, such as tribes and castes. In fact, it is common to find single-caste SHGs. Another example refers to the *Caisses Villageoises d'Épargne et de Crédit Autogérées (CVECAs)*, which have a specific focus on rural areas. These group-based financial providers offer technical support to clients, who are typically subsistence farmers.

### **2.2.2. Institutional providers**

By definition, “*a financial institution is a collection of assets—human, financial, and other—combined to perform activities such as granting loans, underwriting insurance, or mobilizing deposits*” (Ledgerwood, 2013). Thus, their formal nature is reflected in their features. Among these institutions, there are different typologies, namely NGO MFIs, non-bank financial institutions (NBFIs) and payment service providers. In comparison to community-based providers, they may have scarce flexibility, in exchange, however, they offer a higher variety of financial services. Their formal nature results also in more sophisticated products and systems, that usually require to skilled and professional staff. This class of providers finds its sub-categories (see Figure2) depending on the structure

of the financial institution. Registered and regulated institutions can be classified according to criteria such as their legal form, their governance structure, state control degree, and their client typologies. Hereafter there are some examples of institutional providers. First, financial cooperatives, also known as Savings and Credit Cooperatives (SACCOs), refer to member-owned financial providers. Membership in these groups frequently depends on geography, employment and cultural standards. Moreover, each member has the duty to own a share, in accordance with the stipulated modalities and quantities. In other words, SACCOs correspond to a formally and legally registered version of the ASCA mechanism. Due to their formal nature, they comply with national law and the fiscal system. The members have the right to elect the volunteer board committee and decide where to allocate the credit. In general terms, they tend to favour rural contexts so that credits and savings may encourage the circulation of resources. With regard to NGO MFIs, they have a better capacity to recognize the convenience of informal finance. In this way, their programs have more effectiveness and sustainability in alleviating poverty and its related vulnerabilities. This is made possible by their physical proximity to clients, directly in villages and slums, and the settlement of a lending system easily accessible due to its frequent and small repayments. Individuals and groups can benefit from loans in support of microenterprise activities, through mechanisms such as peer guarantees, group solidarity, or village banking. In particular, NGOs, i.e. non-profit organizations, aim at providing services that are not restricted to the economic sphere. Indeed, their programs operate on different levels, such as health, education, and empowerment. Their mission and vision also determine the level of formality, even though they normally are all registered under national laws. This type of MFI has no owners since, unlike financial cooperatives, they are not member-owned.

In the field of financial providers, donors play a crucial role since they have a significant impact on microfinance activities. Their interest has increased in the years along with the rise of the importance of microfinance. Regardless of their entity, donors provide support to microfinance through different services: “*grants for institutional capacity building; grants to cover operating shortfalls, grants for loan capital or equity, concessional loans to fund on-lending, lines of credit, guarantees for commercial funds, and technical assistance*” (Ledgerwood, 1999). They may exert an important influence

on government policy decisions concerning microfinance; for example, they may promote poverty alleviation initiatives and micro-entrepreneurial development.

## **2.3.Financial services**

The wide variety of financial providers corresponds to an extended range of financial services. Products and services are continuously evolving with the aim of reaching more and more users, and improving their socioeconomic conditions. Financial providers also take into consideration the disparate financial needs of poor people in creating and providing financial services which can meet them. Indeed, considering the financial ecosystem of microfinance, the Consultative Group to Assist the Poor (CGAP) Focus Note affirms that “*different products present different risks and delivery challenges, and it is unlikely that a single class of service providers will effectively provide all the products poor people need. A key challenge is how to create the broader interconnected ecosystem of market actors and infrastructure needed for safe and efficient product delivery to the poor*” (Ehrbeck et al. 2012). The term *microfinance* refers to various financial products that are further presented in this paragraph.

### **2.3.1. Credit**

In general terms, credit refers to “*the ability to borrow money in exchange for an agreement to repay the funds with interest and/or fees at some future point(s) in time*” (Ledgerwood, 2013). Lendings are usually investments in productive activities so that takers can generate value. In other cases, credit can cover housing necessities and occasional expenditures. As per Ledgerwood (2013), in order to meet client needs and provide a safe and transparent service, credit products have to respect some specific features:

- size, which depends on clients' characteristics, i.e. necessities, debt capacity and credit history. According to this information, loan size may increase;
- term, which corresponds to the duration of the loan. During this period of time, the loan is considered outstanding. This feature mainly depends on the specifics of the financed activity; for example, in the agricultural field longer loans are usually required. Generally speaking, the duration of the loan ranges from three months to one year;

- repayment terms, which are conditioned by credit risks and accessibility to loan services;
- lending methodology, to which the basic elements of the loan refer, namely product design, client profile, loan repayment and monitoring process. With regard to clients, group loans are a better option for providers due to their lower transaction costs and risks. In addition, their group dimension allows more people to participate, reaching even the most remote populations. These are the cases of the Grameen model, solidarity groups and village banks (Ledgerwood, 2013);
- collateral and security, which foresee a pledge system based on clients' minimal assets. Poor people frequently lack other collateral means (for example land, property or capital). For this reason, alternative collaterals become relevant such as peer pressure or compulsory savings;
- pricing, which makes reference to the loan interest rates. In principle, it corresponds to a nominal interest rate, i.e. a percentage of the loan amount. This portion can be fixed for the entire duration of the loan, or it can be flexible and follow market oscillations.

According to the client profile, credit products may be categorized into two classes. First, individual lending is the typical financial instrument through which individuals can access credit. This could happen thanks to different financial intermediaries: on the formal level, MFIs and traditional financial institutions; on the informal level, moneylenders (Ledgerwood, 1999)

Then, with regard to group-based lending, group membership is based on a shared purpose of the credit loan. This approach usually takes inspiration from existing savings groups, for example the ROSCA model whose mechanism is considered an exemplary source of flexibility in terms of loan size and terms. However, other examples (like Grameen Bank and ACCION International Solidarity Group Lending) seem to be more convenient in some cases, since clients can access credit whenever they need without waiting for their turn. As a final concern, MFIs often struggle in the provision of sustainable services. In other words, they cannot always ensure that *“the services offered meet the demands of clients, that operations are as efficient as possible and costs are minimized, that interest rates and fees are sufficient to cover costs, and that clients are motivated to repay loans”* (Ledgerwood, 1999)

### **2.3.2. Savings**

Together with credit, savings are among the most common financial services provided in the microfinance field. MFIs start with the assumption that poor people also need and have the right to save. For this reason, they implement informal savings schemes. For low-income clients, savings represent the possibility of securing their resources with the aim of consumption smoothing and irregular income management. Available savings also allow them to face extraordinary - educational, health, housing - expenditure or invest them for higher productivity. Savings stocks are also fundamental for coping with sudden crises. In general terms, these advantageous aspects have led clients to increasingly prefer safe savings for their capital. Indeed, *“poor people often rank convenience, access, and security over interest earnings, with proximity being key”* (Ledgerwood, 2013). Yet the formal sector often does not correspond to the first choice due to its lack of these elements - convenience, access and security - and to the limited infrastructure, particularly in rural areas.

The act of saving is differentiated into compulsory and voluntary according to its cause. Compulsory savings therefore refers to regular contributions which clients are called to comply with, in order to have access to credit. This mechanism takes place in financial providers, such as for example ROSCAs and ASCAs. On the contrary, voluntary savings correspond to the spontaneous intention of saving capital. Clients are not discriminated against for being borrowers or not and at any time they can decide the withdrawal of the deposit. These two different approaches follow an underlying principle according to which *“the former assumes that the poor must be taught to save and that they need to learn financial discipline. The latter assumes that the working poor already saves and that what is required are institutions and services appropriate to their needs”* (Ledgerwood, 1999).

### **2.3.3. Insurance**

Insurance is a service which responds to some vulnerabilities experienced by low-income people. A risky environment can be a scenario of various adversities, such as *“illness, accidental death and disability, loss of property due to theft or fire, agricultural losses, and disasters of both the natural and manmade varieties”* (Ledgerwood, 2013). Protection from these risks is provided against a regular contribution, calculated

proportionally to the risk likelihood. Insurance services have in recent years recorded a steep growth for being a tool to cope with these risks and shocks. They provide indeed a more effective and solid protection than informal strategies carried out by poor households. These categories of clients do not match with traditional insurance services, mainly on account of irregular cash flows. Microinsurance is, therefore, able to cover this section of the market thanks to an approach oriented to suit the needs of the low-income markets.

Insurance services can articulate themselves in different product options. Individual insurance addresses low-income people directly and personally. Their high participation rate enables an effective provision of insurance services as well as their financial sustainability. In group insurance, on the other side, the policyholder is the guarantor for the whole group. They have the responsibility to design the insurance product properly and to manage the entire procedure, namely “*enrolling members, collecting premiums, disseminating certificates of insurance and product information, and assisting members to file claims*” (Ledgerwood, 2013) Group membership is detailed in the policy and normally corresponds to labour unions, employers groups and MFIs borrowers. Lastly, mandatory insurance concerns a frequent and compulsory provision of insurance services for organization clients. An example is the Grameen Bank insurance, in which members' loans preview a scant percentage to insurance funds; this deposit can be used for loan repayment in case of client death (Ledgerwood, 1999). These cases may have negative implications concerning the fact that insurance services do not always correspond to clients' desires. Furthermore, a general challenge to the extension of insurance products to low-income people is the biased consideration of insurance. The market needs to be educated and to receive instruments to overcome scepticism. Poor people may not want to spend for the payment of an insurance service whose funds could potentially never be claimed (Ledgerwood, 2013).

#### **2.3.4. Credit Cards**

Credit cards are an expanding service in the field of microfinance. Most commonly, they are part of the formal financial infrastructure. The peculiarity of this service is the provision of credit, in particular cash, through the use of Automatic Teller Machines (ATMs). The effectiveness and the employment of such services would be limited, or

even impossible, without the widespread network and acceptance of ATMs (Ledgerwood, 1999). Differently from debit cards, whose withdrawn funds are directly connected to clients' bank accounts, credit cards have the advantage of automatically providing credit up to a fixed plafond, which the customer must subsequently return in accordance with the terms and conditions (Ledgerwood, 2013).

### **2.3.5. Payments Services**

*“Payment services refer to the electronic transfer of funds, sometimes called money transfers, transfer services, transactions, mobile money, or simply payments”* (Ledgerwood, 2013). A variety of products correspond to a variety of providers, since payment services may be implemented generically by a formal financial provider, namely money transfer companies, traditional banks or, more recently, mobile network operators (MNOs). The parties of credit transfer could be two individuals (person-to-person, P2P), a person and an organization, or a person and the government. The transaction can concretely take place through different tools, including checks, electronic funds transfers (EFTs), ATM and even mobile phones.

### **2.3.6. Agriculture Finance**

Rural areas need specific instruments and financial services, for both agricultural and not-agricultural purposes. Agricultural finance, in concrete, aims at *“financing agriculture-related activities such as inputs, production, storage, processing, and marketing of goods”* (Ledgerwood, 2013). However, working capital is not the unique target of agricultural finance. Its investments are also destined for the improvement of infrastructures and facilities (irrigation systems and machinery). All the services already described are included in agricultural finance programs, mostly run by MFIs and governments. The latter, in association with governmental agricultural banks, provide lending services to poor agricultural households. Similarly, MFIs share the purpose of assisting this category of clients, characterized by income, food security and employment uncertainty. The fluctuations and instability in the agricultural market depend on various factors. This economic market sector is subjected frequently to political intervention, which impacts mostly through price controls. Increasing food prices may lead to higher profitability and, consequently, boost investments in terms of returns and implementation.

Moreover, agriculture has undergone a distortion with regard to its organization and structure. The growing commercialization of the sector can be explained by its expansion with the aim of meeting higher consumer demand. Furthermore, nowadays the main challenge to agriculture is climate change effects. The two - climatic and agricultural - dimensions are strictly intertwined: seasonal supply of products depends on climatic risks such as droughts or floods. Farmers do not have control over these events and find themselves at the mercy of labour and capital fluctuation. Lastly, the nature of lending products in agriculture finance is often challenged. In contrast with other activities supported by MFIs, agriculture - both crops and livestock - requires different time cycles. In addition to slower turnover, one must add the component of uncertainty and vulnerability to which the sector is subjected.

## **2.4.Critics to Microfinance**

Although microfinance has become increasingly important over the years, criticisms and controversies about its impact have emerged on the academic scene. As per O'Dell, evidence shows how there is a poor correlation between the implementation of microfinance projects and the realization of their objectives. The expansion of profits and business in some cases differs from women empowerment and poverty alleviation. In fact, some research shed light on microfinance limits demonstrating that poverty reduction does not always originate from higher consumption or investments (O'Dell, 2010). Other scholars disagree with Yunus' theories, whose assumption predicts a tight correlation between microcredit provision and the progress in the community in terms of poverty reduction and employment gains (Ahmad and Hossain, 1984). Other factors prompted further criticism such as the uneven distribution of the gains, unfair loan collection procedures and persistent barriers to inclusion (Ledgerwood, 2013; Johnson and Arnold 2011). The controversies also dealt with whether some MFIs operated ethically in their lending provisions and the overall risks of over-indebtedness faced by some borrowers (Leatherman et al., 2011). According to Davis, "*desperation-driven microcredit-supported, petty entrepreneurial activity is therefore not the solution to global poverty*". He further argues "*microcredit is nothing but a form of Marie Antoinette-style 'let them eat cake' insouciance*" (Ledgerwood, 2013).

Since 2009 the issue of microfinance and its impacts raised an international concern that found a voice even in great public press, becoming a mainstream media topic. As the first example, in July 2009 the Economist magazine published the article “*Microcredit may not work wonders, but it does help the entrepreneurial poor*”. Based on two main impact assessment evaluation studies (Banerjee et al 2009, Karlan and Zinman 2010), the article supported the idea that microcredit was not an effective tool to reduce poverty. Yet this conclusion resulted in a misleading interpretation of studies if analyzed in more in-depth. Supporting the same idea, the article “*Billions of dollars and a Nobel Prize later, it looks like microlending doesn’t actually do much to fight poverty*” was issued in the Boston Globe in September of the same year. A further article was published only three months later in the Financial Times, entitled “*Perhaps microfinance isn’t such a big deal after all*”. As sources to sustain their argument, an additional study was mentioned, namely the 2009 Microsavings Study (Dupas & Robinson, 2009) As responses to those criticisms, the same Banerjee rebutted arguing the ongoing evolution and innovation of microfinance (Banerjee, 2009). In addition, he highlighted the erroneous association of microfinance and microcredit, assumed by the articles’ authors. Microcredit, in fact, is just one of the financial services, grouped under the label of microfinance. The effectiveness of these financial products depends on their integration into complete financial sets designed for clients. The entire complexity of these tools can be the starting point for answering the question: *does microfinance work?* (Odell, n.d.) The analysis has to take into account a large variety of statistic both in socio-economic (considering the various environments where microfinance takes place) and financial terms (referring to the multitude of financial services, e.g. loans, insurance and savings accounts). For a more complete answer, the research needs a counterfactual, in order to demonstrate if microfinance users could have obtained the same results even without a lending program. As a final remark, evidence demonstrates a positive correlation between microfinance and poverty reduction: “*The decline in poverty is greater in areas where microfinance access increased more sharply*” (Odell, n.d.). Despite this interesting result, it is not possible to assert that microfinance works universally.

## 2.5. Microfinance and food security

The economic development implemented by microfinance has the goal of improving lives of the poor. As per Littlefield, “*access to flexible, convenient, and affordable financial services empowers and equips the poor to make their own choices and build their way out of poverty in a sustained and self-determined way*” (Littlefield et al., 2003). As already mentioned, the contribution of microfinance in the poverty alleviation process concerns different dimensions, e.g. health, children’s education, and women’s empowerment. This paragraph will focus on analysing the correlation between microfinance implementation and health improvements, with a specific emphasis on food security. Health promotion is supported by a multidimensional approach. Indeed, health-oriented MFIs provide a series of additional services with the aim of educating about healthier behaviours and reducing barriers of any type - geographical, financial, or cultural - to enable their better access (Leatherman et al., 2011). It is proven that microfinance instruments positively impact clients’ and their families’ health status. More precisely, Monseson et al. (2014) demonstrated how “*longer participation in a microcredit programme is associated with improvements in the health of children of microcredit clients*” (Monseson et al., 2014). Thanks to financial literacy and access to small loans, households can afford health expenditures which are vehicles for improving living conditions.

An important component in the definition of proper health status corresponds to adequate access to food. Being a basic need does not ensure that everyone enjoys it. Adequate, safe and nutritious food is therefore still an objective on the international agendas (McMichael, 2009; Sila and Pellokila, 2007). In fact, the objective of Zero Hunger, which fell under SDG2 in Agenda 2030, is far from being achieved (FAO et al., 2023). Right to food and the relative concept of food security are two pillars for people to conduct a healthy life and they are an indicator of the development process for all countries (Arshad, 2022). “*The key reason for food insecurity in developing states is people’s failure to access food because of poverty*” (Vivas, 2009), which express itself through different factors, such as “*unavailability of financial services, loss of a job, illiteracy, unemployment, single-parent families, insecure income level and low-income family head*” (Seivwright et al., 2020; Bawadi et al., 2012). With the aim of improving the lives of poor people or even getting them out of poverty, microfinance has been heralded as a strategy for giving financial benefits to poor people. Having access to

financial services and products - i.e. financial inclusion - is *“the major contributor to reducing poverty and bringing prosperity”* (World Bank, 2017). Furthermore, the food insecurity status of households can be assessed according to their finance literature, which has an impact on family well-being (Goldberg et al., 2006, Koomson et al., 2022). Poor households benefit from financial inclusion in building assets, raising incomes and reducing vulnerabilities due to its income generative-ness. In this way, they have tools and knowledge regarding investments and the management of credit. Food security is also positively impacted due to the rise of confidence that people experience in accessing food. As per Omer and Inaba, *“financial inclusion offers diverse services that help reduce poverty and inequality that improve food security, and ultimately increase economic growth”* (Omar and Inaba, 2020). An example is the Freedom From Hunger organization, issued by the Grameen Foundation. As represented in the name, their main purpose is to achieve a world without poverty and hunger. In the 1970s the organization launched Action Nutrition Programs and, subsequently, it promoted *“the world’s first integrated microcredit/health and nutrition education program”* (Freedom from Hunger website). Its impact is not limited to households: *“Financial inclusion is an important tool for economic growth, as it not only supports people and families but also develops entire communities”* (Arshad, 2022). Thus, microfinance has the potential to generate a virtuous cycle of sustainable and social development, offering poor communities a way out of poverty and hunger (Littlefield et al., 2003). Yet, it is fair to recognize how these contexts need a multidimensional approach which cannot be limited to microfinance. The needs of poor people are multiple, and they vary according to different factors. Given the evidence that no single intervention can be the complete solution for poverty, financial inclusion may be the ground on which other interventions are implemented. Indeed, households can afford more investments - in nutrition, health, and education, only once they reach better financial stability.

*“Households of microfinance clients appear to have better nutrition, health practices, and health outcomes than comparable non-client households”* (Littlefield et al., 2003). Conducting a review of studies about the relationship between financial inclusion and food security, different studies proved that *“financial inclusion can indirectly influence food insecurity through its effect on education, health, income, and other human capital indicators”* (Birkenmaier et al.,2016; Koomson et al.,2020;

Koomson et al., 2022; Peprah et al., 2020). *“Financial inclusion has noticeable effects on the improvements in food security, income generation and socioeconomic livelihoods of poor people”* (Arshad, 2022). Indeed, microfinance participation is often associated with an improvement in socioeconomic status and an increase in positive health behaviours, resulting in the spreading of knowledge about and use of contraceptives, better health education, and improvements in maternal and child health (Monseson et al., 2014). In terms of food security, researchers base their report on nutritional measures which represent improvements in households and individual status. For example, Monseson et al. (2014) study focuses on the intake of certain nutritional values, like calories, iron, zinc and vitamin B12. In particular, it supports the idea that the higher the income, the higher the nutrient density of affordable foods. More precisely, *“the food security findings appear to operate partially via an increase in red meat consumption”* (Monseson et al., 2014). Furthermore, a study conducted in Peru took into consideration how length of microfinance participation and child health outcomes are linked. The study finally proved that *“longer participation in microcredit was associated with greater household food security and reduced likelihood of childhood anaemia”* (Monseson et al., 2014). Despite the improvement in food security status derived from microcredit participation and the consequent ability to buy more food, there is no proven correlation with any improvements in anthropometrics measures. Research in this field is generally conducted through the means of a questionnaire which also touches on demographics and socioeconomic status of the household. Microcredit clients are also subject to questions regarding their household assets and characteristics which are valid indicators of poverty, such as the construction material, the presence of refrigerators, the access to electricity and so on. Through these aspects, it is crucial to open a parenthesis regarding the food safety conditions of poor households. Once achieved adequate access to food they also need tools for the correct and safe food stockage.

Scholars have also demonstrated the empirical association of *“financial depth measures with better economic growth, lesser income disparity and thus more food security”* (Beck et al., 2000; Clarke et al., 2006, Demirguc-Kunt and Klapper, 2012; King and Levine, 1993). In addition, one can also refer to food security as being impacted positively by different factors, such as the level of education, per capita income, and agriculture. With regard to financial inclusion, its development in terms of

entrepreneurship and employment often corresponds to a reduction in food insecurity (Koomson, Martey, & Etwire, 2022). It is possible also through the increase of assets and incomes destined for health and education in order to obtain major productivity (Koomson, Villano, & Hadley, 2022; Peprah et al., 2020). Moreover, microfinance implementation has also a positive impact on consumption smoothing. Having some asset accumulation allows poor people to find a sustainable balance between spending and saving (Aryeetey, 2004; Doss et al., 2011). Thanks to microfinance, indigent households have the tools for differentiating their incomes and their increase is frequently associated with the rise of consumption and asset accumulation (Zeller, 1999). In order to preserve this, MFIs often offer a system of insurance, linked to the credit provision. Another major effect of microfinance is better stability in terms of income and consumption. This is relevant in food-insecure situations since households have the tools to minimize the risks of exhausting incomes for food and other basic needs (Zeller, 1999). Furthermore, households can cope with periods of economic crisis by accessing their accumulated productive or nonproductive assets (Bartfeld & Collins, 2017; Jalilian & Kirkpatrick, 2002). Microfinance gives also the possibility to overcome the seasonality of consumption that depends on agricultural growth (Morduch, 1998; Pitt and Khandker, 2002).

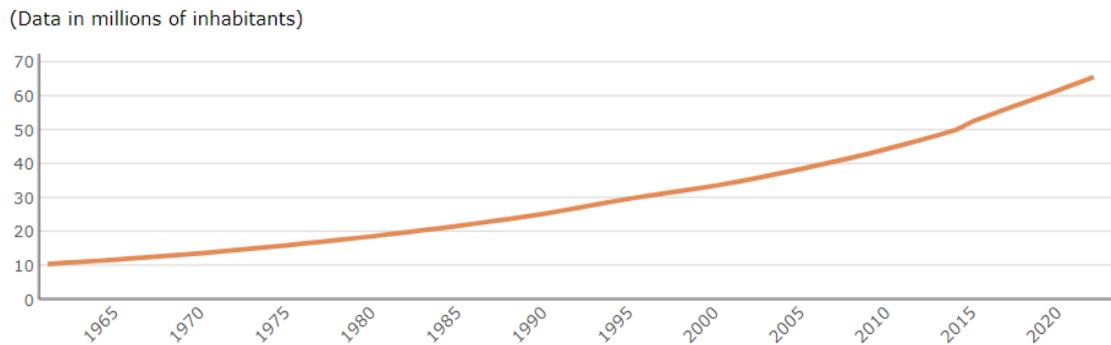
As a final remark, many authors suggest that research on the relation between food insecurity and financial inclusion needs to be analysed more in-depth. The literature does not offer a precise differentiation of the impact of financial inclusion according to its three dimensions (i.e. access, usage and quality). Since studies tend to consider only one of them, further research would be based on financial inclusion as a whole. Moreover, the authors recognize the importance of spreading and enhancing financial knowledge among households in developing countries. In order to raise financial literacy, Arsad (2022) suggested the implementation of seminars. On the other side, governments should adopt progressive policies and reforms to boost financial inclusion, so that the countries could benefit from the consequent socio-economic outcomes, like food security.

## CHAPTER 3 – MICROFINANCE AND FOOD SECURITY IN TANZANIA

### 3.1. Overview of the Country

In view of Chapter 4, which will be devoted to the case study analysis and will have specific references to Tanzania, the present chapter will introduce the country in its sociocultural, economic and political characteristics. The next few paragraphs will give a general perspective of the Tanzanian context by addressing the main issues that have characterised the country in recent years. The paragraph will then conclude with an in-depth look at the level of food insecurity and the development of microfinance in Tanzania.

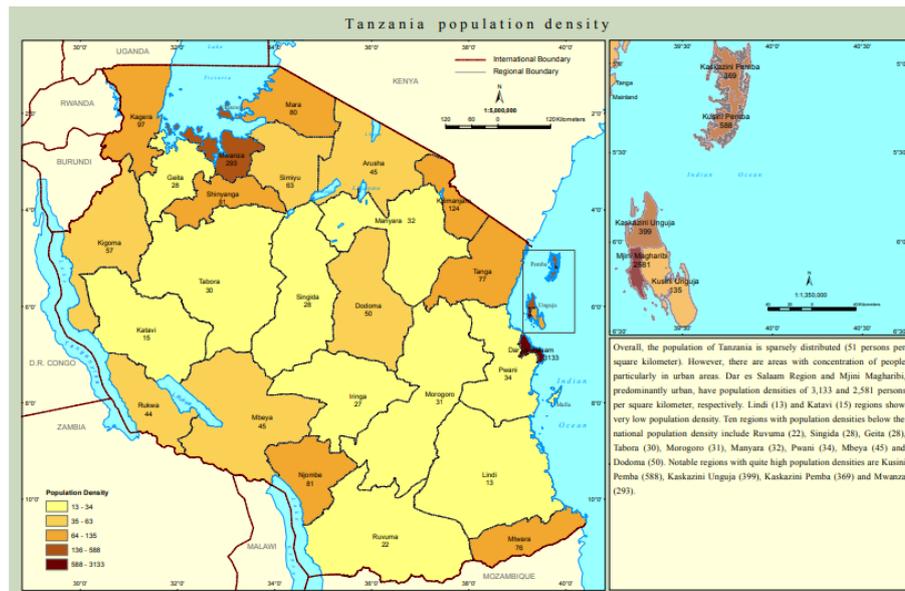
As one of the principal features that characterise and shape the country, a broad outline of the population is necessary. Tanzania is consistent with the general trend of population growth in its region. According to the last Demographic and Health Surveys (DHS), the Tanzanian total population reached 65,497,748 inhabitants in 2022, as illustrated in Figure 3.



**Figure 3** - Demographic growth in Tanzania (World Bank, n.d.)

The demographic growth rate is reported to be 3% and statistical forecasts predict that it will continue to grow in the coming years (World Bank, n.d.). Its distribution on the national territory differs between the thirty different regions (25 in Tanzania mainland and 5 in Zanzibar) according to morphological criteria and resource availability. Although it refers to data from the 2012 National Population and Housing Census (PHC), Figure 4 provides a clear picture of population density in the regions, showing that Dar Es Salaam is the most densely populated area, which indeed can be considered the economic capital

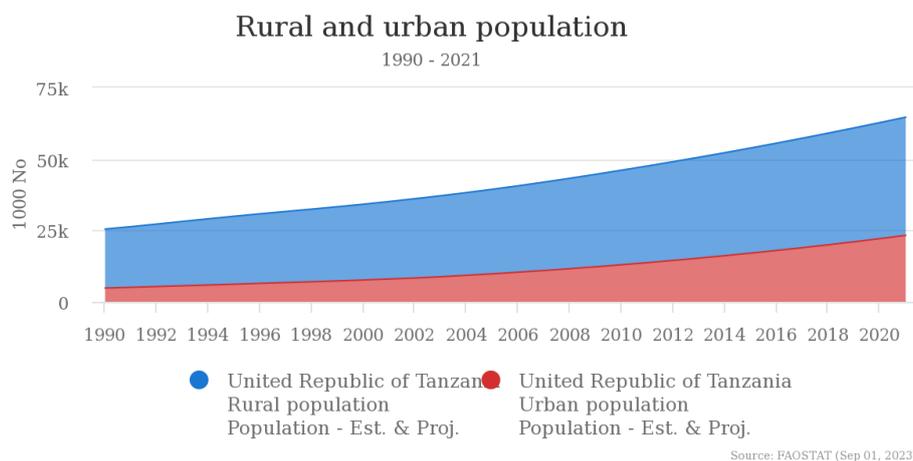
of the country. A further important aspect of the composition of the Tanzanian population is its cultural plurality. It is estimated that there are about 120 indigenous groups in the territory (among which the Bantu, the Maasai, the Samburu, and the Baraguyu), which are in turn clustered into larger communities (FAOSTAT, n.d.). In contrast to many other African nations, the Tanzanian population do not have a dominating ethnic group in terms of cultural or political influence.



**Figure 4 - Tanzanian Population Density (Socio-Economic Atlas of Tanzania - Census 2012)**

Again, with regard to population density, Tanzania has faced a rapid process of urbanisation in recent decades. Rural-to-urban migration was a process with unavoidable and significant social and political repercussions. This increasing urbanisation is rooted in a disparity of wealth between urban and rural areas. Urban-rural inequalities are substantially based on a quantitative difference in endowments: urban households tend to benefit more easily from education, family structure and ownership of assets (World Bank Group, 2015). The level of inequality intensifies if we consider the level of income. *“The difference in real per capita consumption between richest urban and rural households is more than double the difference between poorest urban and rural households”* (World Bank Group, 2015). The urban-rural differential is even more marked and unequal if the urban counterpart is Dar Es Salaam, where the household level of the endowment is particularly elevated. Thus, the urbanization phenomenon consists mainly of young people moving to the major cities in search of better living and working conditions. What

they most of the time find, however, does not correspond to their expectations. From an employment point of view, the labour market in cities is generally saturated and therefore unable to accommodate all the incoming workforce. For this reason, most of these young people end up working in the informal sector and the shadow economy (Wenban-Smith et al., 2016). Social marginalisation is also reflected in the housing conditions in which the majority of the urban population lives. “Over 70 per cent of urban dwellers live in unplanned settlements with inadequate roads, transport, housing, water, sewerage and sanitation, electricity and other services” (Aikaeli et al., 2021). Uneven development and improvements between rural and urban areas led to disparities in terms of poverty reduction and enhancement of living conditions. The greatest risk of this trend, however, is that social cohesion will be threatened, damaging the state as an entity.



**Figure 5 - Rural-urban population disparity (FAOSTAT)**

For a more complete understanding and assessment of the level of general national well-being, we can refer to the Gini coefficient, which is the measure of inequality level. It is expressed with a value from 0 to 100, where the latter is the optimal equality condition in which “a country's total income is shared equally among its residents” (World Economics, n.d.). Tanzania’s more recent Gini index (2019) corresponds to 48.6 placing itself at the bottom of the ranking of African countries. According to World Bank estimates, the coefficient trend has been fluctuating, fluctuating between 1991 and 2018 in the range between 35.3 and 40.5 (World Bank, n.d.). The Gini index represents a good starting point to explore the issue of inequality in particular in specific domains. With regards to poverty, its incidence has remained significant without being impacted by

economic growth (Arndt et al. 2015; Mashindano and Maro 2011) In this case, the discourse on inequalities concerns a disparity of poverty between rural and urban areas. Atkinson and Lugo (2010) affirmed that inequality trends are crucial to explain the mismatch between poverty reduction and economic growth. Similarly, they can also be the basis for advancing ongoing economic reforms. *“Thus, several years of inequality data has the potential to reveal the correlation between the ongoing reforms and developmental outcomes”* (Maliti, 2018). Lastly, education and health are two social sectors which are often dominated by inequality concerns. Reviewing changes in terms of inequalities in these sectors allows to check whether the relative policies have the desired outcomes. These issues will be explored in more detail in the following sections focusing on poverty, economic, political and social aspects in Tanzania.

### **3.1.1. Socioeconomic features: poverty, education and health**

With the aim of understanding the socioeconomic context of Tanzania, one can only begin by mentioning the severe poverty problem, whose substantial reduction is still challenging the country. Given that the poverty line corresponds to T Sh 36,482 per adult per month, as defined by the official National Bureau of Statistics (NBS) (World Bank Group, 2015), it must be acknowledged that to a general extent trend has generally declined in the poverty line. In addition, the country has also managed to remain below the international and regional poverty rate, relative to other Sub-Saharan Africa countries (World Bank Group, 2015). After a summary of the trend in the poverty rate over the past decades, the section will also present other features of the topic by outlining the profile of the poor and the possible improvements. In the early years of the 20th century, poverty in Tanzania remained constant at around 36% of the total population. Since 2007, however, an overall decline of about 6 percentage points in poverty has begun, with an impact also on extreme poverty. Household Budget Survey (HBS) showed how the declining intensity decreased over the next five years to slightly over one percentage point, thus in 2012 reaching an overall poverty rate of 28.2% and, in addition, an extreme poverty rate of 9.7% (United Republic of Tanzania, 2013). Extreme poverty refers to the most severe condition in which the minimum nutritional needs are not met, and people live under the poverty line. Recent data has shown a further decline in the poverty rate -

dropping to 26.4% in 2018 - which has been subsequently hampered by the impact COVID-19 had on society and the economy. However, it is important to remember that behind this percentage number, there are 12 million people still living in poverty in Tanzania. The profile of the 'Tanzanian poor' is not homogenous and depends on many factors, hence targeted measures and interventions are required. The fact that the majority of poor people - approximately 80% (World Bank Group, 2015, World Bank 2007, 2015) - live in rural areas and rely on agricultural production, shows how the geographical dimension has an impact on the poverty condition of households. For example, the World Bank illustrated this by taking *"two main categories of women-headed households: (i) widows running their own household business and mainly located in the rural areas and (ii) single women working in the private sector in the urban areas and capital city. The former suffer from much higher levels of poverty as compared to the other groups"* (World Bank Group, 2015). Thanks to the poverty line decline, rural areas reached the highest proportion of improvement, even compared to cities like Dar Es Salaam. *"Although most of the reduction of the level of poverty occurred in Dar es Salaam, the absolute number of poor people declined more in the rural areas"* (World Bank Group, 2015). The composition of households is a further element associated with poverty: family structure and the presence and quantity of children contribute to determining their status. Evidence shows that a higher number of children impacts more on family conditions, and, in particular, poverty has a higher incidence when children are over five (World Bank Group, 2015). In addition, the household head has a role in determining poverty status, specifically their educational attainment matters. *"The head's level of schooling is closely related to poverty incidence, suggesting that education is strongly linked to income-generating opportunities"* (World Bank Group, 2015), as well as to consumption capacity. Poverty decline resulted also in improvements in the household endowment and their consequent education and property investments. This led to a general increase in consumption by about 15%. As illustrated, the complexity and multidisciplinary of poverty require adequate intervention and improvements in all the following domains in which disparities and inequalities are persistent: living standards and housing conditions, especially in rural areas; ownership of agricultural land; gross enrolment rate; malnutrition and nutritional deficiencies for children under 5 years of age; the diffusion of malaria and HIV infections (World Bank Group, 2015). The spreading of inequalities

is a threat both to potential economic growth (Perotti 1996; Nissanke and Thorbecke 2006; Berg and Ostry 2013) and to poverty reduction (Ravallion 1997, 2005; Thorbecke and Charumilind 2002; Nel 2006), as supported by an international commitment to SDG 10 “Reduce inequality within and among countries”. The paragraph will address inequalities in Tanzania, giving a general overview of education and health.

As far as education is concerned, this sector is still rife with inequalities in many respects. The general trend has been an overall decline in inequality in both the urban-rural and gender gaps. The level of education can be measured with the UN Development Programme’s Human Development Index (HDI), of which education is one of the dimensions taken into account. The measure revealed that there has been an evident internal disparity between regions. HDI reached higher levels in regions such as Dar es Salaam, Iringa, Kilimanjaro and Arusha, to the extent that their values were comparable with those of states whose human development has been at a superior level. Instead, the regions with the lowest level of human development were Dodoma, Kagera, Tabora, Shinyanga and Pwani (ESRF, 2014). This finding, as well as other examples (further analysis available at the World Bank, African Economic Research Consortium (AERC) and the African Development Bank (ADB) (2012)), showed that urban areas offer a better level of education than the rest of the country. Not only the level of education is better, but also the service and the general environment. “*Primary schools in the [urban areas, ed.] were found to be four times more likely to have electricity, water and sanitation than their counterparts in rural areas*” (World Bank et al, 2012). Turning instead to gender inequality, the data show an improvement which the reform may have favoured to guarantee free education until secondary school. Yet, other measures have had a negative impact, including in terms of protecting women's rights. Reference is made in particular to regulations banning the education of pregnant girls, who are even forced to take pregnancy tests. A further indication of the quality of education in Tanzania refers to the widespread and customary practice of corporal punishment of students, which is supported by the Government of Tanzania (GoT) (Bamwenda, 2019).

As an additional social indicator to be analysed, the section will address the issue of health in Tanzania. With a life expectancy at birth of 66 years in 2021 (World Bank, n.d.), the country has demonstrated progress in the area of health in line with the commitment to national and regional instruments: “*the Tanzania Development Vision*

2025, the Third National Five Year Development Plan (FYDP III 2021/22–2025/26), East Africa Community Vision 2050 (EAC 2050), Africa Development Agenda 2063 (ADA 2063), and the Global Agenda 2030 on Sustainable Development Goals (2030 SDGs)” (MoH et al., 2023). Similarly to other states on the African continent, Tanzania is still facing two main health problems, namely malaria and the spread of HIV. The first one has an incidence of around 4 million cases per year, which shows that intervention and measures are constantly necessary. Among the most effective, both in terms of results and reaching the population, is the distribution of prevention tools. Insecticide-treated nets (ITNs) are indeed an effective and affordable instrument for households against malaria infection. Their diffusion is high, with an estimated 74% of households owning one at least (MoH et al., 2023). As per HVI, its prevalence is in decline corresponding to 4.5% of the total population aged between 15 and 49. Further improvement is being achieved using awareness-raising campaigns on how HIV infection is transmitted. The population is also subjected to HIV testing programmes, which are essential for two reasons. In the case of a positive result, the patient can access treatment in a timely manner, such as antiretroviral therapy (ART), and also adopt sexually aware behaviour. On the contrary, a negative individual can contribute to the reduction of the risk of HIV spreading. In principle, it is always recommended and encouraged to be aware of one's HIV status (MoH et al., 2023). A further issue of national healthcare is the differentiation of its provision between urban and rural areas. Langa (2020) affirmed that “*bereft of transformative policy changes to overhaul the centralized colonial health care system, the vast rural-urban divide in health care resources continues to exist in Tanzania. The hospitals and dispensaries that were established during the colonial era were unevenly distributed across regions*” (Langa et al., 2020). The healthcare provision in rural areas should be enhanced especially in terms of more adequate drug supply, availability of skilled practitioners, and efficient connecting infrastructures.

The given general scenario on socioeconomic features in Tanzania offers the means to better understand the topics that will be covered afterwards, especially in the focus on food security and microcredit in the country.

### 3.1.2. Tanzanian Economic Growth

The Tanzanian economy has robustly developed in the last decades to the extent that the country is no longer considered low-income but rather middle-income (WFP Tanzania, 2023). Gross Domestic Product (GDP) had a positive trend since the early years of the 20th century with an average growth rate of 6.4%. As illustrated in Figure 6, the growth line has not been linear but has undergone fluctuations, the most severe of which coincides with the pandemic crisis of 2020.

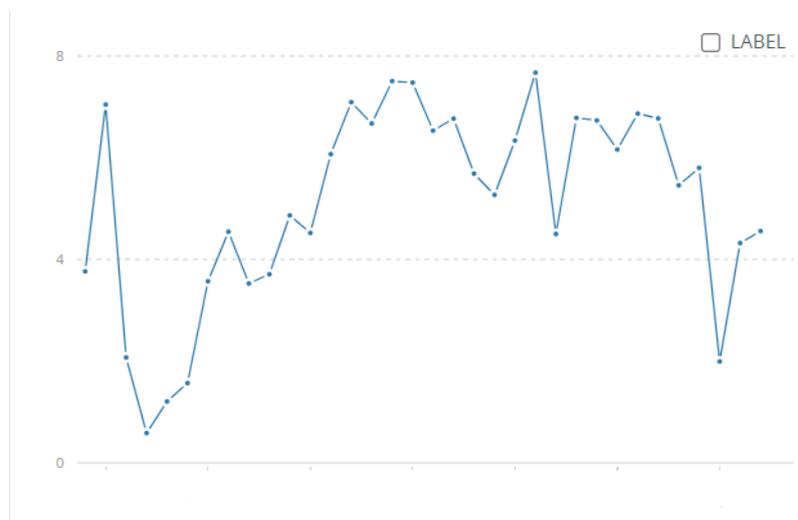


Figure 6 - GDP growth (annual %) - Tanzania (World Bank, n.d.)

Even though the country's economy has not balanced its long-term potential, Tanzania managed to have an efficient post-pandemic recovery, raising its GDP growth rate to 4.6% (World Bank, n.d.). This result was achieved mainly through “*the implementation of structural reforms to strengthen the competitiveness of the economy, improve the business and investment environment, and reduce the cost of regulatory compliance*” (World Bank, n.d.).

Against this general background, it is necessary to try to understand more specifically what made this economic growth fail to correspond to improvements in poverty reduction. As the World Bank reported, it is mainly explained by the fact that the more intensive economic growth has concerned sectors with a lower concentration of low-income workers. Labour-non-intensive sectors, such as construction, communications, and financial services, are in fact the leading sectors of the Tanzanian

economy, which recorded a higher growth rate (World Bank, 2015). On the contrary, agriculture remains the pool for the majority of the country's workforce but still, it is underperforming in terms of economic growth in comparison with the other sectors. "*The agricultural sector, for instance, has been growing at less than half of the growth rates in the industry and services*" (World Bank 2015). This process is further hampered by climate change's challenges which cause irregular crop production and negatively impact agriculture growth. The NBS has revealed that because of extreme weather events "*crop production—which represents 13 per cent of GDP—grew by an average of 2 per cent in the second half of 2022, down from 6 per cent in the second half of 2021*" (World Bank, 2023a) Besides intervention to monitor and cope with adverse effects of climate changes, the national economy needs to broaden its with base in order to achieve a robust and consistent poverty reduction. The steps to ensure that economic growth is translated into an improvement in poverty conditions include interventions such as "*investing in human capital, enhancing agricultural productivity among smallholder farmers, fostering job creation by improving the business climate and expanding women's access to economic opportunities and productive assets*" (World Bank, 2023a).

### **3.1.3. Political Scenario**

In 1961, when the Tanzanian Independence constitution came into force, the state emerged as a Presidential Republic with a multi-party system. Institutional changes occurred in the 1990s aimed at strengthening pluralism and democratic representation. since the subsequent elections, a clear predominance of the Chama Chi Mapinduzi (CCM) party has been established, which has influenced the national political scenario in the following decades. This process resulted in line with the general trend of other African countries, which after the independence opted either for a military regime or a one-party system (Bamwenda, 2019). The democratization process was often motivated by being able to access development aid and funds. In particular, Tanzania implemented policies of economic liberalization under the government of Mpaka e Kikwete and obtained World Bank and International Monetary Fund (IMF) support (Tornimbeni et al., 2023). However, this has been temporarily suspended in correspondence with the publication of severe corruption scandals. Indeed, "*corruption cases in public finances implicated senior politicians, high-ranking government officials, domestic industrialists, and multinational*

*companies in a series of illegal activities involving bribes, kickbacks, and the theft of public funds”* (Gray, 2015). Subsequently, the problem of corruption has been legally addressed with the adoption of two measures, namely the Parliamentary Acts, in 2002 and 2007, on the prevention of corruption.

More recently, the political scene has been occupied by the figure of John Magufuli, who was elected in 2015. With his emergent political career, the candidate of CCM entered the government with an elaborate political agenda. Among his election goals, he had declared to fight corruption, reform the tax system and reduce poverty, as well as improving education and health care. Yet, evidence proves how his government has led Tanzania towards an authoritarian system. His charismatic and pivotal personality made it possible the establishment of a sort of democratic authoritarianism, defined by Henning Melber as a governance system *“resembling and representing in practice features of both, democracy and authoritarian political rule”* (Melber, 2015). Authoritarian features corresponded to an inadequate rule of law and an erosion of human rights protection in different domains. First, the separation of powers - the Executive, Legislative, and Judicial - was not abided provoking a dangerous interference in the work of courts. In addition, a multi-party system was not guaranteed due to the limited freedom of speech granted to emerging parties in the opposition. Some scholars referred to Tanzania as a ‘hybrid system’, since *“despite formally having a democracy and a multi-party system, its practices ensured the continuing domination of CCM and their political elites (Nvaluke)”* (Bamwenda, 2019). Since the adoption of the Media Services Act in 2016, 20th any criticism of the GoT was censored and, therefore, impossible. The measure, in fact, includes the possibility of determining any criticism of the GoT as cybercrime and even the closure of opposition newspapers or magazines. The quibble lies in the constitution's lack of recognition of freedom of the press. About human rights protection, the main gaps concern the most vulnerable groups, such as women, refugees and LGBTQI+ people. Women have been subjected to a considerable level of discrimination. In particular, Magufuli introduced an educational reform according to which pregnant girls could not attend institutions. But the provision was aggravated by subsequent regulations through which girls could be subjected to forced pregnancy tests (Bamwenda, 2019). The former president did not grant the right to asylum, suspending the registration of refugees. Furthermore, the LGBTQI+ community did not have its rights

recognised and has been even the victim of severe discrimination. “*Representatives of public administration threatened to arrest gays, lesbians and their defenders and supporters and banned registration or deregistration of organizations promoting homosexuality*” (Bamwenda, 2019). The general situation with the current president Samia Suluhu Hassan - who came to power after Magufuli's death, plausibly because of Covid-19 - has not particularly improved. On the contrary, the right to free expression is severely threatened by arbitrary arrests of government opponents. Given a wide overview of the political scenario in Tanzania, serious concerns about the evolution of the Tanzanian political system arise considering the debilitation of the rule of law and multi-party system.

### **3.2. Food security status in Tanzania**

Notwithstanding positive improvements in terms of socioeconomic dimension and human development (WFP, Tanzania, 2020), food security continues to find obstacles to its realisation in vulnerable and complex scenarios. The challenges present in Tanzania are common to other regions in Africa, whose agricultural production potential is not always exploited to improve their nutrition status (Goedde, Ooko-Ombaka, & Pais, 2019). As with many other countries in the African continent, Tanzania has been facing the issue of food insecurity in the last decades. Yet, despite Tanzania experiencing a general improvement marked by a positive economic growth trend and the transition from low-income to lower-middle income country (further analysed in Paragraph 3.2.1), these achievements did not correspond to a considerable improvement in terms of poverty reduction and nutrition. A complete realization of SDG2 Zero Hunger is still far from being achieved (WFP Tanzania, 2023; Pauw & Thurlow, 2011). The persistence of food insecurity is due to various factors which characterized the Tanzanian context both of an environmental and socioeconomic nature. Indeed, food insecurity is related on one side to climate change and access to natural resources, and on the other to poverty status and level of income. Erratic rainfall, floods and prolonged drought events are having a negative impact on crop and livestock production, leading to greater difficulties for households in rural areas that base their income on agriculture. These phenomena have contributed to the rising of food prices, worsening the food insecurity status of vulnerable households (IPC, 2022). In addition, the consequent scant water availability also provokes

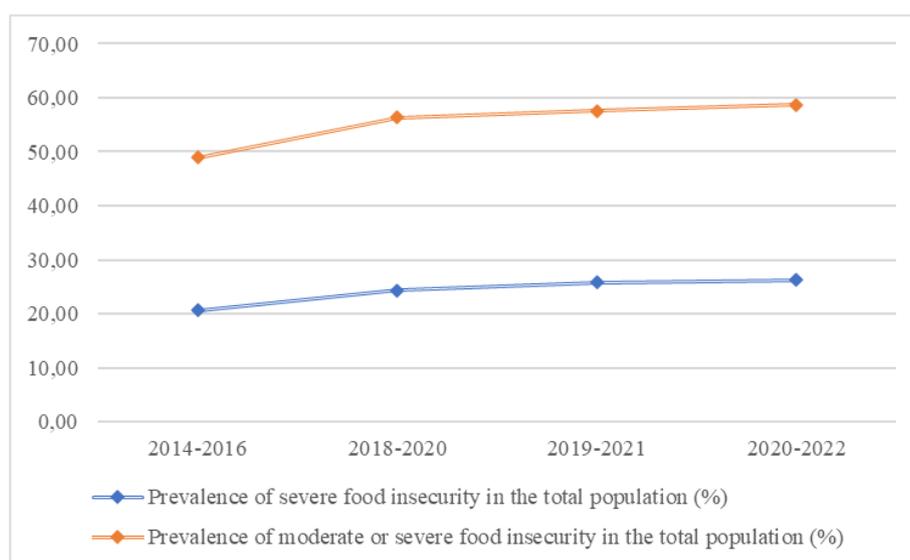
complications for households in their access to safe and healthy water. Another critical factor of food insecurity is urbanization which hinders Tanzanian foodstuffs self-sufficiency. The increasing population in urban areas poses challenges to food security, in terms of the ability to guarantee everyone access to food, especially to the poorer and more disadvantaged cases (Wenban-Smith et al., 2016). Cities often are unable to provide employment opportunities and basic services for adequate food security status. The urban population, which corresponds to two-thirds of the whole population, lives in indecent conditions (i.e. in slums) and finds its source of income in the informal sector (Wenban-Smith et al., 2016). The production of food in Tanzania could correspond to the country's self-sufficiency, but its population needs are not matched. The poorest have limited access to food resources (WFP, 2020).

### **3.2.1. Nutritional data**

Despite the steady economic growth of Tanzania in the last decades, the population is still experiencing poverty and nutritional issues such as food insecurity and undernourishment. The positive trend of national GDP did not necessarily reflect in improvements of poorer population's livelihood. Poverty rate and food insecurity continue to register disappointing growth rates.

Concerning food insecurity, with a total population of over 60 million inhabitants, it has been impacted differently across the years. Moderate and severe food insecurity has recorded positive trends in Tanzanian territory in the last decade. According to FAO statistics, the number of moderately or severely food-insecure people in 2014 corresponded to 25.7 million Tanzanians, relatively 48.9% of the total population. The increment of the function touched 33.7 million in 2018 (56.3%), 35.6 million in 2019 (57.6%) and 37.4 million in 2022 (58.7%). More in detail, the most severe cases of food

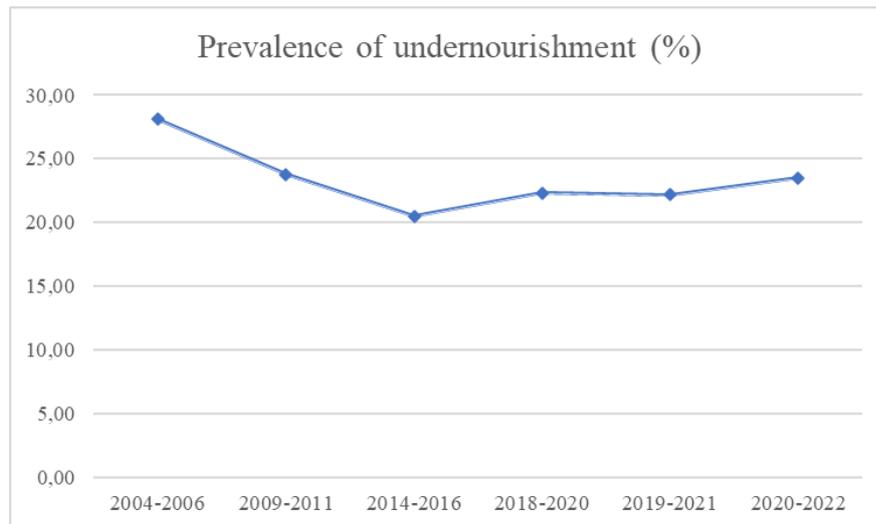
insecurity had a lower growth rate without reaching more than half of the total, as shown in Figure 7.



**Figure 7** - Prevalence of food insecurity in Tanzania (FAOSTAT, n.d.)

Furthermore, by accessing FAOSTAT decomposed data, it is possible to affirm that the female population has been more subjected to food insecurity. This portion of the population recorded in all periods of time under consideration a higher number: in 2014, food insecure female adults were 7.7 million against 6.5 million male adults; in 2018 9.5 million female adults against 9.3 million male adults; in 2019 10.1 million female adults against 9.8 million male adults; and in 2022 10.8 million female adults against 10.3 million male adults (FAOSTAT, n.d.).

Undernourishment continues to be a problem for the Tanzanian population, whose share was around a quarter of the entire population. Its 2004-2022 function did not follow a linear trend reaching its lowest peak in 2015 (20.5 % of the total population). In the following years, the undernourishment rate rose to 23.5% of Tanzanians in 2022 (see Figure 8) (FAOSTAT, n.d.). Yet, recent years have been marked as well by overweight and obesity. Undernourishment and overweight are two sides of the same coin, namely a bad allocation of food resources (WFP, 2020; MoHCDGEC, MoH, TFNC, NBS, OCGS, and UNICEF, 2018).



**Figure 8** - Prevalence of undernourishment in Tanzania (FAOSTAT, n.d.)

The complexity of the mentioned factors translates also into other nutritional problems that are articulated differently in the population according to age ranges and nutritional habits. Anaemia and mineral deficiency are frequently related to diet composition and their share is increasingly important over the total population. For example, anaemia prevalence exceeds 40% and affects mostly women in their reproductive age (FAOSTAT, n.d.; WFP Tanzania Country Office, 2022; JIMAT, NUDEC, & UNICEF, 2019). Vitamin A, iron and iodine are among the micronutrients of which diets are often deficient. The severity of such nutritional deficiencies is mostly caused by poor dietary diversity, since the Tanzanian population bases their diets on unfortified staple foods, namely with boosted nutritional value. In other words, cereals (e.g. maize and rice) provide more than half of the calories (WFP Tanzania Country Office, 2022). Inadequate calorie intake could derive even from cultural patterns of food consumption. Acceding all to the same pot may not result in a fair and balanced food distribution among the family members (FAO, 2008). Another case of discrimination takes place in certain communities where women are used to eating only after men's satisfaction is accomplished, so that they may have limited access to food depending on the circumstances (WFP Tanzania Country Office, 2022).

Regarding children, the main concerns refer to stunting, wasting and underweight, when below 5 years of age. Children's chronic malnutrition in Tanzania recorded above-average rates compared to those of other African countries (WFP, 2020, WFP Tanzania

Country Office, 2022). According to the 2018 Tanzania National Nutrition Survey (TNNS), the children-malnutrition rate resulted in 32%, which was estimated to be approximately 420,000 children (WFP Tanzania Country Office, 2022). The trend remained constant throughout the years, since children stunted below 5 years in 2022 recorded a prevalence of higher than 30% (FAOSTAT, n.d., MoHCDGEC et al., 2016). However, it must be noted that this is the result of a negative trend if we consider that the 2000 rate was at 47.4% (FAOSTAT). Their condition is further hampered and conditioned by socioeconomic factors. For example, rural areas are more subjected to higher stunting prevalence as compared to urban locations (JIMAT, NUDEC, & UNICEF. (2019). In addition, scholars demonstrated how the education of the mother influences the nutritional condition of children: higher educational attainments correspond to better child health and nutrition (JIMAT, NUDEC, & UNICEF. (2019).

### **3.2.2. Food System in Tanzania**

The Tanzanian food system is based mostly on the agricultural sector, which plays a crucial role in the domestic economy. A large number of households base their income on agricultural activity through livestock or the cultivation of land. Estimates show that around 70% of the national population is involved in agriculture. *“Much of the population is engaged in small-scale agriculture, which generates both income and a substantial portion of their food”* (Cochrane & D’Souza, 2015). Indeed, as per WFP’s study, food production in rural areas has two principal purposes: the main portion (around 60%) is destined for trade, and the remaining part is consumed by the local population (WFP Tanzania Country Office, 2022). Despite their difficulties in accessing land, women represent the majority of the workforce in this sector. Consequently, they have limited access to resources and credit, so as to improve their household condition.

Crop production is predominated by cereal cultivation (e.g. maize, rice, and wheat) covering over half of the harvested land. Yet, this production is not able to cover national consumption and Tanzania is still a net cereal importer (Pauw & Thurlow, 2011). Other food crops correspond to sorghum, millet, beans, cassava, potatoes, and bananas, as well as local vegetables and tropical fruits. A part of crop production is destined for export and consists of the major cash crops such as coffee, cashew nuts, sisal and spices (Cochrane & D’Souza, 2015). Internal food distribution poses challenges to the ideal and

appropriate functioning of the food system. First, among everything, there are lack in terms of food processing, food transport and adequate storage systems (WFP Tanzania Country Office, 2022).

### **3.2.3. National Policies and Initiatives of International Cooperation**

The National nutrition framework has evolved throughout the years with the aim of tackling the major nutritional problems and their relative challenges. Political commitment is expressed in the adoption of national policies and the implementation of multisectoral programmes. Approved in 1992, the National Nutrition Policy (NNP) is the first milestone whose objectives were among others the integration of nutrition and food activities in different sectors, the eradication of malnutrition and the improvement of the nutritional situation of the more vulnerable population, namely women and children. Its application took place through the National Nutrition Strategy (NNS) 2011/12-2015/2016, whose scope was to “*attain adequate nutritional status, which is an essential requirement for a healthy and productive nation*” (URT& MoHSW, 2012). NNS called for the implementation of policies, strategies and programs aimed at improving the nutritional situation in Tanzania. As a first step, NNS led to the adoption of National Nutrition Social and Behaviour Change Communication (SBCC) Strategy. Thanks to its comprehensive vision of nutrition the SBCC Strategy operated for the prevention of malnutrition through various channels, “*including individual and group counselling, informal gathering at community level, formal sessions through health services, school curricula and mass media*” (URT, 2014). The subsequent plan adopted was the National Multisectoral Nutrition Action Plan (NMNAP) 2016-2021 and the relative Food and Nutrition Policy (NF&NP) of 2016. Closely anchored to the Government’s Five-Year Development Plan II (FYDP II) (2016/17-2020/21), NMNAP was built with a multisectoral structure in order to “*address the unacceptably high levels of malnutrition in Tanzania in all its forms –both under-nutrition and the prevention and control of the increasing burden of Diet Related Non-Communicable Diseases (DRNCDs)*” (URT, 2016b). All these policy implementations represent how national governments were particularly active in the promotion of the nutrition agenda and in the participation of Tanzania in Scaling-up Nutrition, an international multi-sectoral and multi-stakeholder

movement with the aim of the eradication of malnutrition in all its forms (JIMAT, NUDEC, & UNICEF, 2019; Scaling Up Nutrition website). On the territorial dimension of this objective, the GoT established a network of Regional and District Multisectoral Nutrition Steering committees, as provided by the NMNAP (JIMAT, NUDEC, & UNICEF, 2019). In this way, the identification of needy households could be taken place more easily reducing challenges in assessing food insecurity status (Cochrane, & D'Souza, 2015). However, the plan and strategies' actuation encountered difficulties, particularly in terms of the availability of skilled employees and human resources. The specialization in nutrition, indeed, was restricted only to specific schools and institutions, such as the Sokoine University of Agriculture (SUA) (JIMAT, NUDEC, & UNICEF, 2019). An improvement in this aspect was possible by virtue of international organization interventions. In particular, WHO and UNICEF played a crucial role in accelerating the formation and training of nutrition practitioners and officers. In the last decade Tanzania Food and Nutrition Centre (TFNC), the technical arm of the national Ministry of Health, Social Development, Gender, Elderly and Children, recorded an increase of more than 240 units of skilled nutritionists (JIMAT, NUDEC, & UNICEF, 2019).

The national scenario was also occupied by the support of the WFP. Its presence in Tanzania dates back to 1963 when the Programme settled a multisectoral intervention on food security and the safeguarding of the most vulnerable groups. Its work was directed by means of collaboration with a multitude of actors, such as the GoT, UN agencies and NGOs (WFP, 2020). WFP activity had two main focuses, namely support to smallholders and nutrition improvement. First, the organization accomplished to create and support income-generating activities destined for smallholder groups. The Under Climate Smart Agriculture Project established some off-season activities in order to improve their nutritional intake and economic incomes, including “*horticultural farming, beekeeping, tree nursery planting and poultry farming*” (WFP Tanzania, 2023). “*In line with its commitment to the 2030 Agenda, WFP's Country Strategic Plan 2022-2027 targets inclusive economic growth through market-based interventions (such as financial inclusion and commodity marketing digital solutions), strengthened human capital, increased access to affordable nutritious foods and healthy diets, and climate action*” (WFP, 2020). Indeed, agricultural growth can be considered a vector for poverty reduction (Diao et al., 2010; Valdés and Foster, 2010) as well as for food security improvements. In

principle, income-generating activities lead to higher consumption capacity of households both in terms of quantity and quality. Better household incomes and expenditures permit, in fact, access to good quality and high-calorie foods. Since the linkages between economic growth and poverty and nutrition outcomes are evident, it is necessary to draw attention to the influence of agricultural growth. Pauw and Thurlow's research demonstrated how agricultural growth impacted consequently both economic growth and poverty reduction. Its importance is endorsed by the fact that the participation of poor people in the agricultural sector is consistent. Moreover, agriculture is related to poor people also from the supply perspective, since it provides the products that the poor are intensive consumers. "*Faster growth in these sectors will therefore have a greater impact on poverty for farmers producing these crops, whereas poorer consumers may also benefit from falling market prices*" (Pauw, & Thurlow, 2011). Accelerating agricultural growth could, therefore, be an incisive tool for poverty reduction and food security due to the consequent increased caloric availability. "*Reductions in undernourishment are best achieved by improving productivity in the production of key calorie-laden food crops*" (Pauw, & Thurlow, 2011). As with other nutritional actions, the Ministry of Health received technical support from the WFP aimed at reviewing and perfecting national nutritional policies. Indeed, WFP has been involved in advocacy and coordination activities with the national Government to improve nutrition status and initiatives. Its action also included the provision of nutrition equipment and the formation of skilled nutrition practitioners for the purpose of reinforcing national capacity (WFP, 2020).

A problematic factor impacting scarce food allocation is post-harvest (PH) loss, which in Tanzania "*the magnitude of PH losses is estimated to be 30–40 percent for cereals and up to 100 percent higher for perishable crops*" (WFP Tanzania Country Office, 2022; the United Republic of Tanzania, Ministry of Agriculture, 2019). Its causes usually lie in inadequate and malfunctioning transport and storage systems. Efficient infrastructures have a central role in accessing land and markets due to their potential for rapid delivery and preserved quality. Thus, their deterioration and malfunctioning cause delayed distribution to the market and the consequent product spoiling. The generation of income and nutrition improvements requires investments in infrastructure and food storage, whose urgency should be solicited about the threat of post-harvest losses pose to the national economy (WFP Tanzania Country Office, 2022: United Republic of Tanzania,

Ministry of Agriculture, 2019). Once ascertained the importance of action in this regard, the issue has been tackled by local institutions such as the Alliance for Green Revolution in Africa (AGRA). The latter launched the Yield Wise Food Loss Reduction Initiative (YWS) in 2016 to reduce the waste of fruits, vegetables, and other foods (Development, The Rockefeller Foundation, UKAID, & USAID, 2020). Consistent with 2030 SDGs, the initiative had a comprehensive approach through its five components: “*market demand and linkages, farmer aggregation and training, access to finance, increasing access to post-harvest loss technologies and practices, prioritization of loss prevention and knowledge management*” (Development, The Rockefeller Foundation, UKAID, & USAID, 2020). Once concluded in 2019, the project highlighted the value and the urgency of such interventions aimed at post-harvest loss management. This could be reached through a series of post-harvest technologies for improving both transport and storage. In particular, the project promoted the use of hermetic bags and metallic silos among others and it observed how their diffusion has to match the needs and preferences of users. The intervention on post-harvest loss had, in fact, an impact also on the consumer side. A timely and cost-effective distribution system contributes to the stimulation of the demand for nutritious foods, whose chain reaction is to boost a more diversified agriculture production and, hence, to improve the quality of soil through crop rotation and intercropping systems. Quality and safety of food products have been more recently guaranteed in Tanzania by the diffusion of supermarkets, where consumers find alternatives to traditional and informal markets (Wenban-Smith et al., 2016; Crush and Caesar, 2014). Yet, the latter has remained the preference of the majority for economic reasons, seeing as also in urban areas food insecurity has been caused by low-income levels besides poverty status (Wenban-Smith et al., 2016). In addition, for more aware consumption, citizens have to be educated in an educating and awareness-raising path which can start with school feeding programs.

In conclusion, the totality of policies and interventions remark how a coordinated and multisectoral approach is necessary for enhancing nutrition and human health. Tanzania has to advance in term of sustainability and minimize post-harvest losses, whose benefits concerns the country in its totality, both for economic development and for citizens' protection.

### **3.3. Microfinance in Tanzania**

Microfinance in Tanzania has been representing a solution for reaching wider groups of clients. Its provision of accessible financial services permits filling the gaps created by the formal financial system, which is restricted only to a category of people. Alternative financial institutions have evolved in Tanzania in recent years, encouraging big strides in financial inclusion. As reported by FinScope, the financially excluded population has been reduced to just over 6 million in 2023, compared to almost 8 million in 2017. FinScope Tanzania is the primary source and database for financial services information. It provides a precise overview and measure of their demand and usage across the country (FinScope, 2023).

#### **3.3.1. Financial providers in Tanzania**

A database comprehensive of all microfinance institutions present in Tanzania is missing (Brown et al, 2015), but since 2011 it has been estimated the presence and activity of approximately 48 MFIs and 70 NGOs. As a whole, almost 700,000 clients took advantage of their programs and services in 2011, corresponding to about one-tenth of their formal counterparts (Pantaleo & Chagama, 2016).

In its evolution, the Tanzanian microfinance subsector has included an ever-increasing variety of financial providers, following the general distinction between formal and informal. The first category refers to traditional financial institutions, SACCOs, NGOs and Government Programmes. The principal MFIs active in Tanzania are Pride Tanzania, BRAC Tanzania, FINCA Tanzania and Vision Fund (Brown et al, 2015). In its 2017 Survey, FinScope registered an increase in microfinance activity by its service to 48.6% of the workforce, as compared to 6.7% in 2006 (URT & MFP, 2017). Banks and financial institution has been playing a central role and their importance is reflected in the doubling of realities in recent decades, considering that they rose from being 31 in 1999 to 63 in 2015. As far as Government Programmes and Funds are concerned, they were supported by national policies (e.g. National Microfinance Policy 2000, more detail in Paragraph 3.3.3.) which stimulated the creation of local microfinance providers. The following are some examples of government-funded programmes to reach households in need: “*National Economic Empowerment and Job Creation Programme, SELF Microfinance Fund (SELF MF), Youth and Women Development Fund, Mwananchi*

*Empowerment Fund, National Entrepreneurship Development Fund (NEDF), Presidential Trust Fund (PTF), Export Credit Guarantee Scheme (ECGS) and SME Development Fund*” (URT & MFP, 2017). In their totality, almost 300,000 entrepreneurs were reached by these instruments and accomplished to improve their entrepreneurial capacity.

With regard to informal providers, in Tanzania are present ROSCAs, ASCAs, money lenders, and other financial-related service providers, such as Community-Based Organizations (CBOs) and Village Saving and Loan Associations (VSLAs) (URT & MFP, 2017). In addition, examples of Non-Financial Institutions fall into this class due to the innovative delivery channels, such as Mobile Network Operators (MNOs). Community financial groups have been a worthwhile opportunity for citizens to access and employ microfinance services. By 2015 informal providers were estimated to be approximately 23,000 and their actions covered over 700,000 clients (URT & MFP, 2017). However, their impact felt an effect on the appearance of MNOs, given that their incidence in the workforce dropped from 35% to 6.7% in ten years (URT & MFP, 2017).

### **3.3.2. Impact of microfinance in Tanzania.**

Assessing the impact of microfinance is fundamental in order to ensure that microfinance’s promise of poverty reduction is becoming a reality. It represents, in fact, an effective way of checking whether customers' needs are being met and of taking forward action depending on their results. In the majority of cases, impact assessments are conducted directly by MFIs, so that they can monitor their performance. As criteria, they set economic measures such as job creation, business profitability and market diversification (Kessy, & Urrio, 2006). While MFIs adopt methods of client interviews or loan officer report, FinScope bases its investigation on the comparison between microfinance borrowers and non-borrowers. In 2013, the Tanzania Finscope Survey (TFS) confirmed that microfinance had a positive impact on their clients. *“the empirical results revealed that the average treatment effect of monthly income on the treated was statistically significant among microfinance borrowers implying that borrowers tend to have a higher level of income than non-borrowers”* (Pantaleo, & Chagama, 2016).

To a general extent, microfinance in Tanzania confirms the positive outcomes as in the rest of the world (as already developed in paragraph 2.1.1.), which are rural

development, child education, health improvements, women empowerment, and ultimately poverty reduction (MkNelly and Christopher, 1999; Khandker, 2005; Girabi, & Mwakaje, 2013). Microfinance's central goal of poverty reduction is also acknowledged in Tanzania in several measures taken at the national and regional levels. These are in fact initiatives implemented by the GoT, such as Tanzania Development Vision 2025, National Strategy for Growth and Poverty Reduction (MKUKUTA I and II) and Five Year Development Plan I and II (Pantaleo, & Chagama, 2016; URT, 2016a; URT, 2012).

In addition, other research demonstrated positive changes in clients' lives thanks to the provision of MFI services in Tanzania. In terms of economic growth, Kessy and Urio's study asserted that more than 80% of customers were able to increase their income level as a result of their access to MFI. The same survey reported that the improvement also affected the educational sphere of the individual, as almost 40 per cent of the respondents were able to continue their studies thanks to the credit they received. (Kessy, & Urio, 2006). Once experienced an increase in income, clients also illustrated how their consumption both in terms of capacity and choice. Their daily consumption has been positively affected since they could access better quality food and clothes and could also afford extraordinary expenses in education and home ownership (Ahlén, 2012). In addition, microfinance led to financial inclusion and empowerment of a large proportion of Tanzanian women, considering that about 90 per cent of MFIs' clients are precisely women (Mkwawa, 2005).

The effectiveness of microfinance in Tanzania is confirmed to be the result of its accessibility through reduced bureaucracy, minimal financial barriers and favourable interest rates. The clients' main purpose is the development and support of economic activities of individuals, Small and Medium Enterprises (SMEs) and group enterprises (Pantaleo, & Chagama, 2016). With a focus on SMEs, microfinance has been able to strengthen and support their economic growth and sustainability. Its impact is possible to be observed in different features, as Madole's study had proved. First, SMEs benefitted from a general growth of sales turnover. *"43.8% of respondents remarked the growth of less than 10% of their sales growth after accessing a loan from [National Microfinance Bank, ed.] NMB, followed by 38.8% of respondents remarked sales growth of (10-25%) per year"* (Madole, 2013). Similarly, the business profit has been affected by growth, to

the extent that loans also allowed for wider business diversification and, consequently, for an increase in business assets. Concerning working capital, XXX found a positive correlation with business expansion. The latter also concerns the number of new workers, since a large proportion of SMEs reported that in its growth, the number of people employed also increased.

### **3.3.3. Legal Framework for Microfinance in Tanzania**

Microfinance was first legally introduced by way of the National Microfinance Policy (NMP 2000) in 2000, aimed at “*establishing the basis for the evolution of an efficient and effective micro financial system in the country, thereby contributing to economic growth and poverty reduction*” (URT & MFP, 2017). For the realisation of the objectives, it was established a set of strategies such as the creation of a legal framework for the development of microfinance, including guiding principles. Specific tools were at the basis of its implementation, namely “*regulation and supervision; development and application of standards; and capacity building*” (URT & MFP, 2017), which led to an increasing presence and availability of providers of all kinds and the relative diffusion of financial products and services. Nevertheless, this process has not been without complications and challenges. Its implementation was limited for social and cultural aspects regarding a general lack of financial literacy, as well as legal factors for which a customer protection system and a regulation for community financial groups were absent. Moreover, public opinion raised concerns about the functioning of the microfinance subsector. Above all, it was questioned the financial conduct of MFIs and the effective impact on the poverty condition of their clients. Their doubts were based on cases of over-indebtedness, inadequate and unfair lending and recovery terms and conditions, and inaccessible interest rates (URT & MFP, 2017). Considering the above, a review and integration of NMP 2000 has been necessary. Adopted in 2006, the Banking and Financial Institutions Acts regarded microfinance due to its measure to assign to the Bank of Tanzania (BoT) the licence, regulation and supervision of a category of MFIs. Under the control of BoT, were only covered deposit-taking microfinance institutions, commercial banks and community banks (URT & MFP, 2017). Its role was confirmed also by the following enactment of the Microfinance Act of 2018.

The microfinance legal framework was integrated in 2013 by the Cooperative Societies Act, whose objective was to attribute to the Tanzanian Cooperative Development Commission (TCDC) the registration, regulation and supervision of SACCOs. The last progress has been accomplished by the adoption of the National Microfinance Policy 2017 (NMP 2017), which represented the effective review of its previous version. Indeed, NMP 2017 resumed the objective of establishing an efficient microfinance system in Tanzania, but with a specific focus on the creation of an effective coordination, regulation and supervision (URT & MFP, 2017). According to NMP 2017, all stakeholders could contribute to the stimulation of a national microfinance system, for which adjustments were needed, however. The policy was intended to “*create a legal and regulatory environment that ensures growth of strong microfinance institutions that delivers inclusive financial services to low-income individuals, households and enterprises through innovative, diversified, sustainable, affordable and easily accessible financial services*” (URT & MFP, 2017). In other words, “*the main objective of NMP 2017 is to promote financial inclusion by creating an enabling environment for an efficient and effective microfinance sub-sector in the country that can serve the needs of individuals, households and enterprises on low incomes and thereby contribute to economic growth, employment creation and poverty reduction*” (URT & MFP, 2017). In this way, positive outcomes were accessible and possible. Among others, NMP 2017 was expected to create a more formal and inclusive saving culture; promote research for the delivery of innovative, diversified and accessible financial products; and adopt a consumer protection system. The fulfilment of NMP 2017’s objectives encountered some challenges. First, microfinance had to face the persistently high rate of financial exclusion. Formal financial services remained inaccessible to over 30% of the population as reported in FinScope 2017 (URT & MFP, 2017). Financial exclusion registered a greater incidence in rural areas, compared to the urban ones. In addition, the provision of microfinance services is often limited by the lack of working capital due to a poor saving culture and the inaccessibility of reliable financial sources. Even community-based providers, such as SACCOs, experienced difficulties in raising the savings capacity of their members, determining higher risks for the operation and the services of the organization. Furthermore, the Governmental contribution has been ineffective since its Government Financing Programmes lacked inter-organization management coordination. Because of

inadequate competence in the management of funds, Programmes were scattered without meeting the concrete needs of unbanked citizens in most cases.

### **3.3.4. Some Possible Progresses**

For an efficient and effective microfinance system, as desired by national policies, improvements and interventions have to be put in place. Indeed, the complete and optimal implementation of microfinance requires the following major issues to be addressed. First, MFIs should improve their capacity to gather information in order to develop a (MIS) (URT & MFP, 2017). Together with an enhanced legal framework, MIS would allow to access relevant information on MFIs' conduct and monitor their performance. In addition, it would be a useful instrument to connect all the kinds of MFIs present in the country, creating a network with common goals and vision (URT & MFP, 2017). Microfinance in Tanzania is hampered by the lack of a central credit information register, namely a unified system where it is possible to verify if a client has already access to microcredit services. Its advantage is to avoid overexposure to loans and the consequent risk of over-indebtedness. Moreover, *“the multiple loans scenario has been aggravated further by the lack of an impeccable system for unique identification of the borrowers”*. Currently, in accordance with the applicable NMP, this task is under the responsibility of the BoT, which is responsible for providing credit information to customers (URT & MFP, 2017). With regard to clients' perspectives, access to microfinance could be limited in some cases by high-interest rates. Their increase was driven by technical expenses (e.g. the MFI personnel and administration) and was based on the cost of capital and the loan-loss risks. In some cases, administrative costs could correspond to two-thirds of the imposed interests. However, due to the nature and principles of microfinance, high-interest rates are not the rule. Their application is not universal, depending on the MFI and the product and its characteristics (loan type, duration amount, etc). As a final remark, microfinance would take advantage of regulatory progress on the subject of anti-money laundering and non-deposit MFIs. The institution of a regulatory body is essential to monitor their presence, performance and compliance with anti-money laundering law.

## **CHAPTER 4 – EVIDENCE FROM THE APG23’S RAINBOW PROJECT**

### **4.1. Introduction**

This present dissertation opened with the first chapters - Chapter 1 and Chapter 2 - dedicated to an overview of the literature review on the themes of microfinance and food security. Both primary - international declarations and national policies - and secondary - journal articles, reviews, reports and books - have been the starting point for addressing from a global perspective the main points of the two themes, which are then explored further in Chapter 3 dealing with the socio-economic and political context of Tanzania. The narrow national view of this chapter presented critical issues and challenges still present in the country, which continue to impact everyday life. In other words, the above-mentioned parts have made it possible to establish a theoretical and normative framework in which to analyse the content of the case study presented in this section. Indeed, Chapter 4 concerns the presentation and analysis of the Rainbow Project, a large-scale intervention model which is implemented by APG23 in Tanzania, Zambia and Kenya. In its multi-sectoral nature, the project provides a microcredit programme and targeted interventions according to the needs and resources of different countries. In Tanzania specifically, the focus relates to food insecurity conditions for vulnerable households. The combination of the two dimensions - food security and microcredit - made the project relevant for research purposes. Therefore, a collaboration with the association was initiated in order to learn more about their vision and mission as well as to understand how the project works in its entirety. A field visit to Iringa was approved and made possible to facilitate data collection and to obtain more direct evidence as answers to the research question. A structured questionnaire was the main tool for this. Drafted in coordination with the APG23 operators, a complete background on both the person and his experience was sought in order to be able to analyse the evolution over the years. For this reason, the questionnaire includes an important part of food insecurity assessment using the FAO model, the Food Insecurity Experience Scale (FIES) survey module. During the stay in Iringa, data was collected through interviews, to which a part of the Rainbow Project’s beneficiaries took part voluntarily and with full cooperation. The APG23 project is still ongoing and every year it tries to reach more and more needy people.

With regard to the chapter structure, the first paragraph concerns a presentation of the Association, addressing its history and evolution over the years, as well as its values and mission. The Rainbow Project is then introduced by delving into its origins and objectives, concluding with a specific focus on Tanzania and the microcredit component. The chapter will therefore address the research from its background, specifying the geographical areas involved and the methodology by which it was conducted. The following part is dedicated to the research findings, which will be categorised and represented by self-created graphs for a clearer insight into the results. Final remarks will then close the chapter to provide general observations on the results and points for improvement of future research.

## **4.2. Associazione Papa Giovanni XXIII**

This present chapter is devoted to the analysis of the case study, namely the microcredit project of the Associazione Comunità Papa Giovanni XXIII (APG23). APG23, an International Lay Association of Pontifical Right, was founded in 1968 in Rimini, Italy, where the priest Oreste Benzi started his activities aimed at the remotion of the causes of injustice, poverty and marginalisation. Its vision is well resumed in the following statement: *“A more just and peaceful world where the dignity and rights of every human being are recognized and respected, and where the ‘discarded’, the last, mark the march of the human family”*, as stated on their website (APG23, n.d.-c). Over the years APG23 has evolved through its ability to grasp the needs and changes in society.

### **4.2.1. History and numbers**

APG23 was inspired by the intuition of Oreste Benzi, a priest in Rimini who devoted his life to acts of charity towards the poorest and most marginalised in society. His charisma and actions attracted a large number of young people, with whom the Association was in fact founded. Through the participation of its members, APG23 has developed its activities on the basis of the principle of sharing life directly with the poor and disadvantaged. In 1973 the first family house was launched in Rimini, as a reality to give a family to those who do not have one. Based on their example, in the following years family houses opened in several Italian regions. APG23 became international in 1985 when the first international mission was launched in Zambia. At the request of the bishop

of Ndola, a group of missionaries went to Zambian territory to open the first family house outside Italy (APG23). Nowadays APG23 is present in 40 countries on five continents, not only with family houses but also with all the initiatives that emerged over the years. Indeed, APG23 runs emergency shelters, open families, houses of fraternity, cooperatives and day-centres, microcredit programmes, therapeutic communities for drug users and centres for alcoholics. The Association is also active in war zones through its non-violent presence, *Operazione Colomba*, which has the objective of guaranteeing the respect of human rights and assisting populations displaced by the war. The variety of interventions reflects the ability of APG23's members to appropriately gather the needs of the poor and the changes in society. Their presence is raised as a concrete response to human rights violations or critical conditions. For example, the launching of APG23's first therapeutic community derived from the widespread consumption of hard drugs in Italy; or again, the conflict in Yugoslavia stimulated their participation in war zones and the creation of humanitarian corridors to support the victims. In addition, the creation of social cooperatives and small entrepreneurial realities contributes to the establishment of the '*società del gratuito*' (literally, the society of the gratuitousness, further explained in Paragraph 4.2.2.), where the poor receive value and dignity through labour inclusion. APG23's commitment to the defence of human rights has led also to obtaining special consultative status with the UN Economic and Social Council (ECOSOC) in 2006. Since then APG23 has advocated at the UN Human Rights Council in Geneva and other UN mechanisms, such as the Universal Periodic Review (UPR), with the following priorities: Right to Development and its implementation; International Solidarity and Human Rights; Rights of the Child; Right to Health and Access to Treatment; Protection of the family; Right to Peace; Migration; Human trafficking; Right to food; Right to safe drinking water and sanitation. Its presence at the UN bodies has the aim of bringing the voice of the voiceless to the international leaders.

As stated in its reports, APG23 counts more than 2000 members, namely people who chose to devote their time, or even their life, to the Association's mission. The members, of different ages and states of life, share life directly with the poor and disadvantaged and are committed to removing the root causes of poverty and exclusion and to being the voice of the voiceless through non-violent actions and means. Beyond those, the human capital of the Association includes almost 500 employees and 150

volunteers. On the other side, the beneficiaries are estimated to be over 3500 disadvantaged people, whose poverty mostly refers to migrations, homelessness, disability, family dysfunction, and social marginalisation. Out of this total, almost the totality - 80% - receive 24/7 assistance in the Association's centres and families. Concerning APG23's structures, the family houses are the main format for sharing life directly with the poor. In total, they are almost 250, of which 41 are abroad. The other options comprehend 32 open families, 13 therapeutic communities, and 93 emergency shelters (APG23, 2020).

#### **4.2.2. APG23's mission and core values**

As the ultimate goal, APG23 promotes the eradication of inequalities and poverty. It happens to multiple initiatives, such as the fights against hunger and waste, the presence in conflict zones and the promotion of the right to peace, the education to sharing, and awareness-raising campaigns. All the members agree to have non-violent actions aimed at removing the root causes of injustice and marginalisation at both social and political levels. One path to achieving these goals is the establishment of the 'Società del gratuito' which recalls the evangelic principle of complementarity between the man and the society: the man is conceived as a living member of a living body, so if someone is sick the whole body is sick and the first thought is given to healing the sick, which most of the times correspond to the most vulnerable. (APG23, n.d.). Thus, this approach stimulates an inclusive, solidarity-based and sustainable development model. In opposition to the profit society, APG23 promotes a society in which all actions and choices are guided by the well-being of everyone. The APG23's principle of 'altrocentrismo' (othercentrism) contrasts with the egoism which characterises the current society, which sets profit as the main goal of economic activity. On the contrary, APG23 advocates an economy whose mechanisms are adapted to the person. Indeed, it is based on the awareness that the realisation of the common good corresponds to the individual's good. For this reason, the action aimed at the removal of causes is necessary and urgent. APG23 calls for the creation of a new economic system, which is able to focus on the person and the common good. In this way, it would be therefore possible to address some of the main problems which are afflicting our planet. However, this change can occur only if the root causes of injustice and poverty are questioned. The interventions should not be post-factum, namely

addressing the consequences, but rather ante-factum having a direct effect on the causes. The misleading conception of causes and effects may lead to less incisive and effective interventions, which on the whole are not capable of modifying poverty in the long run. The direct sharing of life with the poor is the solution that APG23 is putting into practice for the removal of the injustice's causes. Through this proximity, APG23 is therefore able to implement measures and initiatives which respond to the concrete needs of the poor and are not limited to being harm reduction solutions. At the basis of APG23's actions, there is the principle of the 'finanza di restituzione' (finance of restitution) which rather than an economy for the poor supports an economy of the poor, whose social redemption is possible only through adequate economic means. Avoiding the creation of a dependency syndrome, APG23 stimulates to the poor and disadvantaged populations' ability to be the architects of their own development. In this context, social inclusion and microcredit projects put the poor and their needs at the centre and take place based on justice rather than charity.

#### **4.2.3. The presence in Tanzania**

APG23 has been present in Tanzania since 1992 in the districts of Iringa and Dar Es Salaam. There the action of the Association focused on the assistance of needy children and families, street children, disabled people, and HIV patients. This takes place both in reception structures and through support and development interventions. Tanzania hosts two family houses, which welcome children and young people with difficult family situations or street children, and two open families, in which orphans can find a family. As far as support and development interventions are concerned, APG23 runs different daily centres for young people: the Kizito Centre is destined for 17 street children in order to offer them support for their educational path; the Shalom Centre, placed in Iringa, represents a place of aggregation for young people to whom cultural proposals (classes of music, sport, and creativity) are offered; and in Dar Es Salaam the Baba Oreste Centre welcomes 40 young people with physical and/or mental disabilities with the aim to reduce their social marginalisation. Some of these centres were founded through the implementation in Tanzania of the Rainbow Project starting in 2002, which also covers a nutritional centre in Iringa and support to elderly women. As its last activity in Iringa, APG23 runs a bakery and relative shop with which it can initiate employment pathways

for disabled or marginalised people, as well as raise funds to finance the Association's other activities.

#### 4.2.4. Rainbow Project

The Rainbow Project is a large-scale intervention model APG23 is currently running in Tanzania, Zambia and Kenya. Originally launched as a response to give support to orphaned children due to AIDS in Zambia, the project takes place in collaboration with local organizations and institutions. In this way, APG23 avoid imposing anything from the top other than capturing the basic needs of the beneficiaerries. On the contrary, the project is aimed at enhancing and developing existing realities. Over the years, the intervention model has also been applied in other countries (Tanzania and Kenya), adapting to local necessities and resources. In Kenya AGP23 members urged an intervention with the street children, whereas in Tanzania the project's approach gave increasingly more importance to the nutritional aspect. Improving the nutritional status of the beneficiaries became, indeed, a further objective and led to the implementation of a number of interventions: a nutritional centre in Ngorome, Iringa, assists malnourished children by providing support to the families in terms of food distribution and nutritional education; counselling centres where young people find psychological support and critical situations can be reported; microcredit covers each year about a hundred people giving them the possibility to launch or boost their commercial or agricultural activity.

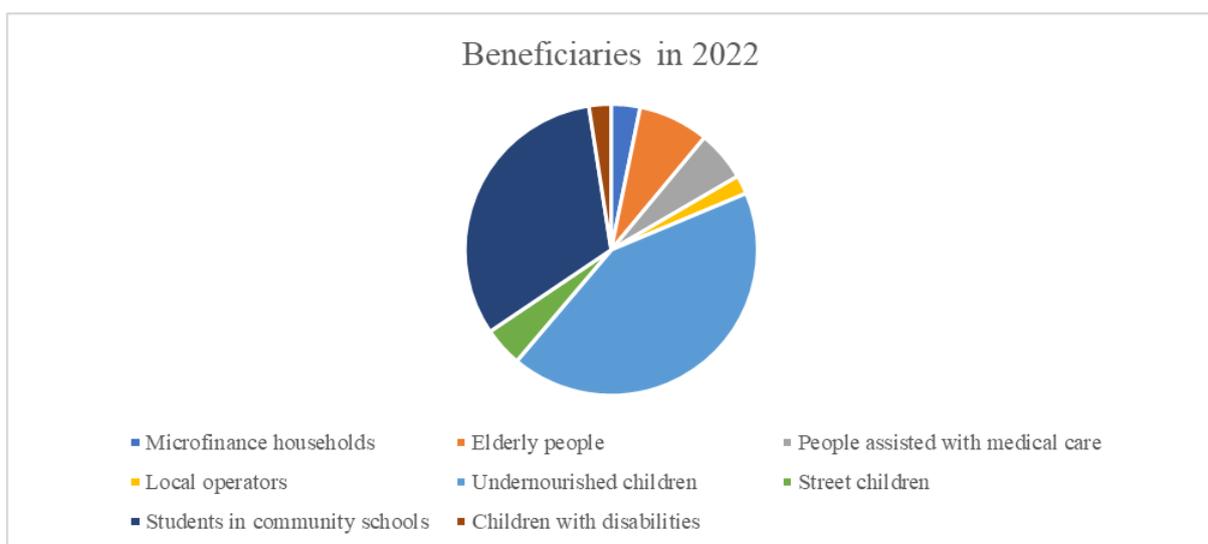


Figure 9 – Rainbow Project’s Beneficiaries (APG23, 2022)

For the purpose of understanding the dimensions and impact of the project, the 2022 report shows that in total, in the three countries, the project has reached 6976 people, of which 5659 were children. Figure 9 illustrates the distinct categories of beneficiaries and their proportion in the 2022 activities.

#### 4.2.5. The origins and objective of the project

The Rainbow Project originated back in the years as APG23's intervention in Zambia - whose presence started in 1985 - on the emerging problem of AIDS orphans. Once the extent of the problem and the actual conditions had been assessed, the members then planned a series of measures to be applied on-site to enable as many orphans as possible to remain with their families. A major problem to be addressed was poverty, in terms of food insecurity and limited access to food. The struggle against hunger is indeed something that marks households, leading to limited energy for work and more susceptibility to illness. In particular, the main beneficiaries of the Rainbow Project are children which are the most vulnerable category, since proper nutrition has effects on physical and psychological development. For these reasons, since 1998 the Rainbow Project developed as a multidimensional and multisectoral program trying to grasp the issue as comprehensively and diversely as possible. APG23 did not want to introduce an additional project, but rather to create a proposal for linking the various organisations with the intention of providing a diversified set of responses. This approach was in line with the general working system of the Association. In this way, it was possible to give different support adapted to the needs of the children and households. The project is structured in different areas of intervention, all of which refer to help and counselling centres as illustrated in Figure 10.

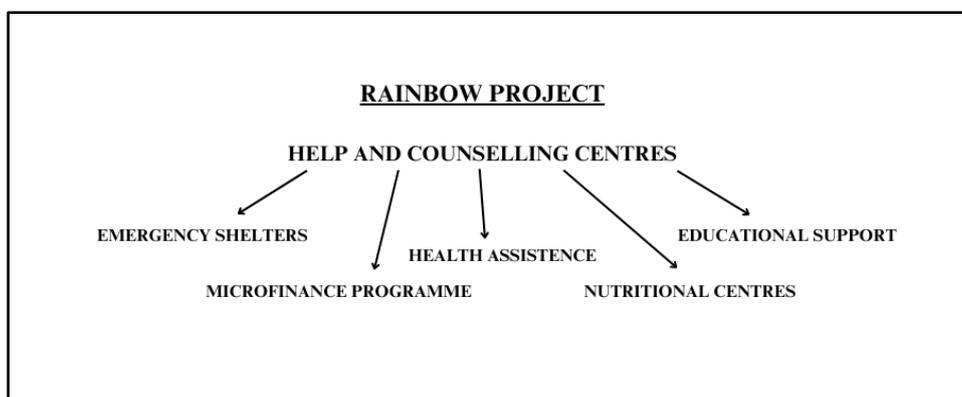


Figure 10 - Rainbow Project scheme (APG23, 2020)

The model aims to achieve its objectives by seeking a balance between the need for assistance in the short term - in terms of food, education, medical care, etc. - and the need to propose a possible long-term solution, avoiding the dependency syndrome as far as possible. In the following years, the project evolved and adapted to the specific necessities of the people and context, spreading also to other countries, such as Kenya and Tanzania, on which the rest of the chapter will focus.

#### **4.2.6. Microcredit Programme in Tanzania**

The Rainbow Project includes a microcredit programme that aims to give the poorest families the opportunity to work with dignity and support their families. In multi-sectoral activities, such as the microcredit programme, the nutrition centre, or school support, it can happen that the beneficiaries overlap. The association does not let access to one service be an exclusive or discriminating factor in order to have access to the others, so there is no automatic correspondence between the different groups of beneficiaries. The primary objective of APG23 actions is to help people have a decent standard of living which ensures that their material needs, and human dignity are met. Given this long-term objective, microcredit intervenes in the concrete possibilities that households have to improve their conditions. In addition, its strength is its peculiarity of originating from the bottom, from the people. By responding to specific needs, it is, therefore, possible to enhance their agricultural and commercial expertise and access to resources and productive assets. The APG23 programme seeks to enhance the know-how already present in the family, so as to reduce risks and make the loan as profitable as possible. Furthermore, microcredit is an effective response to the malnutrition issue, tackling it from its causes. The specific objectives of the programme are the following: responding to basic needs and reducing poverty constraints; increasing self-confidence and a sense of community belonging; creating job opportunities at the family level; and helping families improve their living standards and cope with food insecurity. On the field, the microcredit programme is headed by an executive group composed of APG23 members and operators, who are all native to the area. This allows APG23 to have a greater knowledge of the critical issues in the area and the corresponding responses, as well as to monitor and evaluate the progress or difficulties of the beneficiaries.

The structure of the programme consists of three phases: the selection of the

beneficiaries, the training course for the business launch, and the loan restitution. Identifying the beneficiaries is as delicate and difficult as it is important to be able to support the most vulnerable situations. A key criterion to facilitate the process is submitting a letter stating the applicants' situation of need, which must be issued by the 'mwenyekiti', namely the local state representative. The latter has to certify the presence of a real situation of need and guarantee that the applicant does not already have other loans. In addition, the applicant has to present an idea of a productive activity - commercial, agricultural, or handcraft - to be launched or boosted. Once the group of beneficiaries has been created, the microcredit programme could start. The APG23 system is based on a twin-track approach, whereby it attempts to achieve a balance between immediate needs and self-development needs. Besides the actual disbursement of the microcredit loan, the household receives food, health, and education non-repayable assistance for the first months of the programme, to prevent the credit received from being used for mere subsistence. This contribution is calculated on a case-by-case basis following criteria such as family size. For the launch of self-development activities, APG23 provides a two-week training course to have basic skills in managing a business. In this phase, the beneficiaries are also helped to draw up a business plan in order to receive the needed amount of credit. The loan is distributed without interest rates so as not to encourage dependency syndrome which limits the possibilities of local development. The cycle of the loan is one year, at the end of which the client is supposed to return the credit received. Repayment can be made in instalments and women are asked to be punctual with payments so that the same opportunities can be guaranteed for the following year. An exception is allowed in cases of agricultural or livestock farming activities that do not necessarily have immediate earnings and are more prone to unforeseen events. In addition, APG23 offers favourable conditions since restitution is not the ultimate goal of his project. Indeed, the fact that the credit is repaid is only a functional operation indicator, since the priority is that the beneficiary has improved their standard of living in terms of nutrition, education and health above all. In the event of failure to return, the Association first tries to ascertain the reasons with the regarded beneficiary. Time has shown how the reasons can be multiple, whether economic - poor harvests, death of animals - or social - family breakdown, illness, or funeral, for which many families go into debt. The evaluation parameters, therefore, do not follow economic

logic but put the person at the centre. Thus, microcredit becomes an effective tool to help reduce poverty, without further aggravating the debtor's condition.

### **4.3. Research background**

The present paragraph is aimed at outlining the area and process in which the case study developed. This process was fundamental for optimal and effective data collection in the field. Firstly, the definition of the research area allowed for a further understanding of the socioeconomic context in which the research was embedded, as well as a better and more efficient organisation of the country visit. In addition, knowing specifically where the research took place also allows for greater awareness of the results and thus a better interpretation of them. Another key element of the research background is undoubtedly the methodology with which it was carried out. In the dedicated section, this element will be analysed in all its aspects, from the initial collaboration with the association and the in-depth analysis of the project to the concrete implementation of the data collection.

#### **4.3.1. Research area**

The microcredit programme in Tanzania involves each year almost a hundred households each, which are structured in geographic groups: in Iringa, there are Ngome, Ipogolo and Kiwere, to which one is added in Dar Es Salaam. In 2022 there were 65 microcredit beneficiaries in Iringa, more specifically divided into 20 in Ngome, 17 in Ipogolo, and 28 in Kiwere. For the purpose of the research, the case study was restricted to the district of Iringa, where my field visit took place and where the majority of APG23's activities in Tanzania have been carried out. Ngome and Ipogolo are two areas in the suburbs of the city of Iringa, whose urbanization is growing. Here one can find almost only small businesses such as small kiosks or stalls selling food or vegetables, as well as selling charcoal, tailoring, growing or breeding animals. Whereas Kiwere is located about 20 km from Iringa, in a completely rural setting. In this little-densely populated village, the main livelihood activities are agriculture and livestock breeding. All three microcredit groups in Iringa were involved in the field visit, through which I was able to meet representatives of each group.

### **4.3.2. Methodology**

The purpose of the case study was the assessment of improvements in food security through the access to microcredit programme. For this reason, the research focused on people's behaviours and choices regarding specific situations or conditions. The collection of this qualitative data was made possible by means of a series of interviews conducted during my field visit. The interviewers' selection process was entrusted to on-site APG23 operators, who could rely on their trust and mutual knowledge to engage customers. Having access to the trust of the people involved was in fact crucial in order to have their maximum collaboration in providing key information and thus the success of the research. The main reference point for this phase was Mama Pemba, a member of APG23, which is active in Iringa in the management of the microcredit programme. Her support enabled the beneficiaries of the microcredit programme to voluntarily contribute to the case study. With the aim of maximising the confidentiality of the information exchanged, interviews were conducted individually in private locations, which often coincided with beneficiaries' homes or workplaces. However, the interviews all took place in the presence of the local APG23 operators, who not only had the task of introducing me to the people we met but were also fundamental to me in their role as interpreters. Indeed, almost all the beneficiaries encountered spoke exclusively Swahili, which made an English translation necessary. The meeting with them began with a brief introduction on the nature and reason for my research and then moved on to the interview part, guided by a structured questionnaire (attached in the Annexes). All the people I met agreed to meet me and answer the questionnaire voluntarily, also giving me permission to take notes of their answers and to take photos of them and their businesses (some examples are part of the Annexes).

A close and enduring collaboration with the Association enabled to better define the design of the research. APG23 members, both in Italy and on-site, were willing to provide me with documents and materials on the Rainbow Project so that I could more accurately set the research question. The extensive analysis of the Rainbow Project was, thus, the first stage of research which corresponded with an in-depth exchange with the APG23's head of the microcredit programme, Mrs E. Garuti. From this conversation, several questions emerged on the functioning of the project, its underlying vision, the different approaches in the countries involved, and an overview of their relevant needs.

Once the focus has been established on food security, Mrs Garuti recommended considering Iringa as a suitable area for the purposes of the research. The scheduling and organisation of the field visit therefore started in parallel with the compilation of the literature review and the refinement of the questionnaire to be used later in the field. Its structure consists of five different parts, each with its own specific scope and function. The questionnaire opens with general biographical information, such as name, age, marital status, the presence of children, and educational level. This information is crucial for profiling the beneficiary and their household. The employment status part follows with questions on employment and earnings - pre- and post-loan - to determine possible job mobility and increased income level. This is followed by the core of the research concerning the evaluation of food insecurity. The FIES survey module proposed by the FAO has been integrated into the structured questionnaire. This option was also chosen for its validity and its advantages in terms of time and cost. The FAO guidelines envisage that this survey module can be included in further questionnaires or population surveys, as its structure of 8 questions is designed to gather information on people's access to adequate food. In order for this statistical scale to correctly capture distinct behaviour and lead to relevant results, it is necessary to adapt the survey module culturally and linguistically. This has been possible through the provision of the FAO of the translated survey as well as the adaptation of the APG23 Swahili speakers members. For added research consistency and solidity, during the interviews, the FIES survey module was applied to two different periods - pre- and post-loan - so that changes in the level of food insecurity could be assessed. Further information on malnutrition experience and knowledge has been collected in the following section of the questionnaire. As another indicator of food security, questions about the number of meals per day and the variety of the diet were included in the questionnaire. This continues with practical information about microcredit access such as the period of access, the amount of the loan, its utilisation and restitution. The last section regards the presence of any hopes for the future by the respondents.

In the last briefing before the field visit, Mama Pemba, another APG23 member and I exchanged some final information on the people who would then be involved in the interviews. On that occasion, we also finalised the planning of the stay, which took place from 12 to 24 October. During this period, I was able to meet in person and interview 22

beneficiaries of the microcredit programme, as well as to visit the majority of the activities that APG23 is running in the district of Iringa. Mama Pemba, who kindly devoted entire days to the research, was my guide on the territory and accompanied me directly to people to interview them at their homes or workplaces. For research purposes, the profile of the respondents expected to have completed the loan period, so that a comparison between before and after could be made. The interviews were conducted taking turns, privately, in the presence of the APG23 operators, who enabled the translation from Swahili. Moreover, the field visit coincided with the launch of the 2023 microcredit programme for the Ngome group, so I was able to attend some of the initial training and observe the different documentation for that phase. I also visited the nutrition centre and was able to have a meeting with the nutritionist about the functioning and importance of the centre in the local community.

## 4.4. Findings

### 4.4.1. Personal Information

*Age* - The respondents were all of different ages, which when collected by decades show three main groups: each with 6 people, both the 30-40 and the 40-50 range correspond to 27% of the total group; instead, the 50-60 range concerns 22.7%, corresponding to 5 people. Among the twenty-two respondents, the youngest was 21 years old, and the oldest was 17. In addition, the average age of the group is 46 years old.

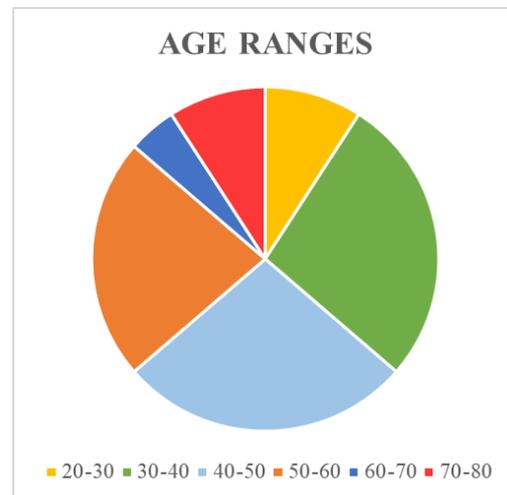
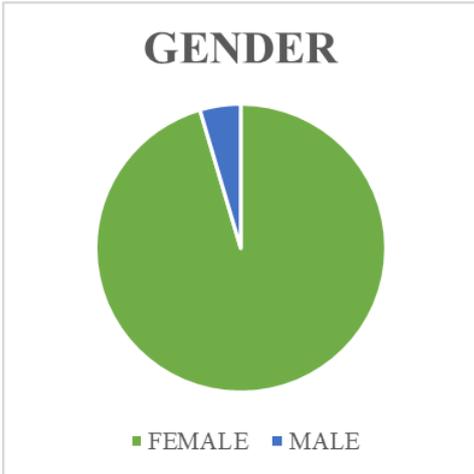


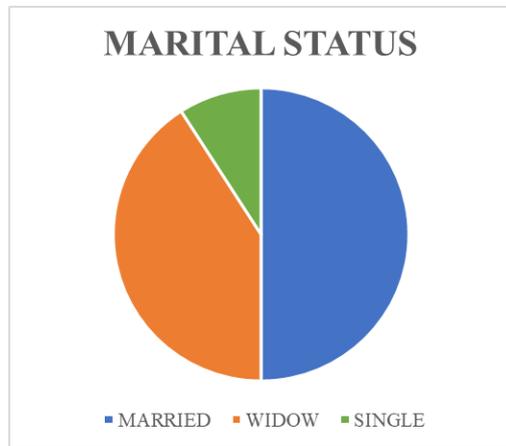
Figure 11 - Age ranges



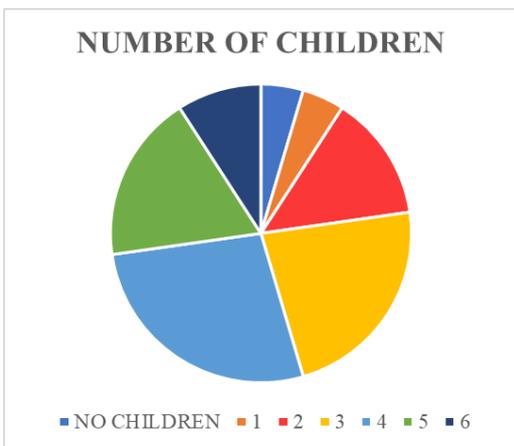
*Gender* - Almost all of the people interviewed were women, as out of the total, one was a man.

**Figure 12** - Gender

*Marital status* - Among the twenty-two respondents, exactly half declared to be married. Of the remainder, nine confided that they were widows and only two that they were single. Although the official status was married, some added that they had been left by their husbands, thus having to take care of the children on their own.



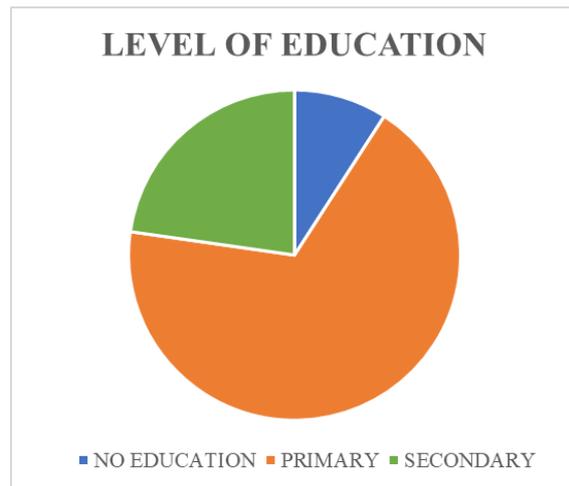
**Figure 13** - Marital status



**Figure 14** - Number of children

*Number of children* - Among the twenty-two respondents, only one woman reported having no children, but because the only one she had died. Within the rest of the group, the main trend is to have four children (27%), followed by three children (22.7%) and five children (18%). The highest of children is six, corresponding to two women. Only one person declared having only one child.

*Educational attainment* - Among the twenty-two respondents, primary education was the highest trend (68%) in the level of education. Two people asserted that they had not obtained any education. The highest educational attainment corresponds to secondary school, achieved by only five people (22.7%).



**Figure 15** - Educational attainment

#### **4.4.2. Nutritional Improvements**

*Malnutrition experience* - None of the respondents stated that they had experienced malnutrition personally. Three of them stated that there had been a case of malnutrition in their family, namely a child. More than half have witnessed cases of malnutrition in their own village.

*FIES survey module, before the project* - All 22 respondents were able to answer the eight questions of the FIES model with reference to the period before joining the microcredit programme. This would in fact not be contemplated by the normal implementation of the survey module, which plans to refer to the last twelve months. The responses are summarised in Figure 16, in which the respondents were ordered according to their prevalence of affirmative responses. The data collection of the FIES survey module in fact indicates that 1 corresponds to yes and 0 to no. A higher number of affirmative answers therefore means a greater vulnerability to food insecurity. Only one person reported having the highest degree of food insecurity, with all responses in the affirmative. On the opposite, the totality of negative answers corresponded to only one person. For the remaining group, six people only answered in the affirmative to five questions; four people to four questions; eight people to three questions; one person to two questions; and one person to one question.

R	WORRIED	HEALTHY	FEWFOOD	SKIPPED	ATELESS	RUNOUT	HUNGRY	WHLDAY
4	1	1	1	1	1	1	1	1
1	1	1	1	1	1	0	0	0
2	1	1	1	1	1	0	0	0
8	1	1	1	1	1	0	0	0
10	1	1	1	1	1	0	0	0
12	1	1	1	1	1	0	0	0
13	1	1	1	1	1	0	0	0
18	1	1	1	1	0	0	0	0
14	1	1	1	1	0	0	0	0
7	1	1	1	1	0	0	0	0
9	1	1	1	1	0	0	0	0
5	1	1	1	0	0	0	0	0
3	1	1	1	0	0	0	0	0
11	1	1	1	0	0	0	0	0
17	1	1	1	0	0	0	0	0
19	1	1	1	0	0	0	0	0
20	1	1	1	0	0	0	0	0
21	1	1	1	0	0	0	0	0
22	1	1	1	0	0	0	0	0
15	1	1	0	0	0	0	0	0
6	1	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0

**Figure 17** - FIES survey module, before the project

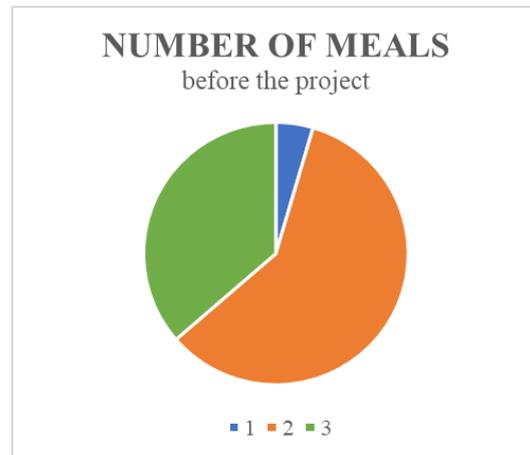
*FIES survey module, after the project* - the answers to the FIES survey module in relation to the period after the microcredit programme, i.e. the present one, are listed in Figure 17. Still in order of prevalence of affirmative answers, the data show that ten people answered negatively to all questions, corresponding to the lowest level of food insecurity severity.

R	WORRIED	HEALTHY	FEWFOOD	SKIPPED	ATELESS	RUNOUT	HUNGRY	WHLDAY
1	1	1	1	0	0	0	0	0
4	1	1	1	0	0	0	0	0
2	1	1	0	0	0	0	0	0
7	1	1	0	0	0	0	0	0
8	1	1	0	0	0	0	0	0
9	1	1	0	0	0	0	0	0
10	1	1	0	0	0	0	0	0
14	1	1	0	0	0	0	0	0
19	1	1	0	0	0	0	0	0
5	1	0	0	0	0	0	0	0
15	1	0	0	0	0	0	0	0
22	1	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0

**Figure 16** - FIES survey module, after the project

The highest rate of affirmative answers - three - concerned two people. The remaining are divided into seven people who answered with two yes and three people with one.

*Number of meals* - Among the respondents, the majority reported eating twice a day before accessing the microcredit programme. Considering that only one person stated that they ate only once a day, the remaining eight could afford three meals per day, as illustrated in Figure 18. Regarding the period after the micro-credit, all respondents answered that they were able to eat three times a day.



**Figure 18** - Number of meals

*Complete diet* - With reference to the period before the project, a complete diet was found in the answers of only four people. The other eighteen persons stated that they did not have a complete diet. Their answers indicated that the main missing calorie component was animal protein, as meat is among the least accessible foods in that context. With access to microcredit, the data reversed showing a clear prevalence of a complete diet: eighteen people answered 'yes', and the remaining four 'no'. This condition reversal is clearly evident in Figures 19 and 20.



**Figure 20** - Diet perception, before the project



**Figure 19** - Diet perception, after the project

### 4.4.3. Microcredit Programme

*Time of access* - all respondents accessed the microcredit programme at least once. At the time of the interviews, those who had received credit only once were 8. The same number of people had received it twice, and 4 people thrice (Figure 21).

With regard to the period, the loans taken into account referred to a time interval from 2015 to 2022. More than 70% of the loans were provided in the last three years.

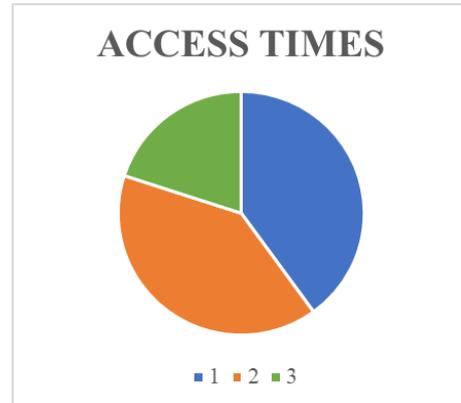


Figure 21 - Times of access

*Amount of the loans* - The volume of credit received by respondents varies greatly, for two main reasons. Firstly, credit is granted depending on the needs and interventions that require it, so there is no standard amount. In addition, as already reported, more than half of the respondents have accessed credit more than once. Figure 22 shows for each person how much credit has been granted over the years.

In terms of loan restitution, respondents were asked whether it had taken place completely: 100% replied that they had fully repaid the credit received. Yet, 27% - six people - added that they struggled to cover the entire repayment due to reasons such as the irregularity of customers, the death of their animals and the effects of climate change.

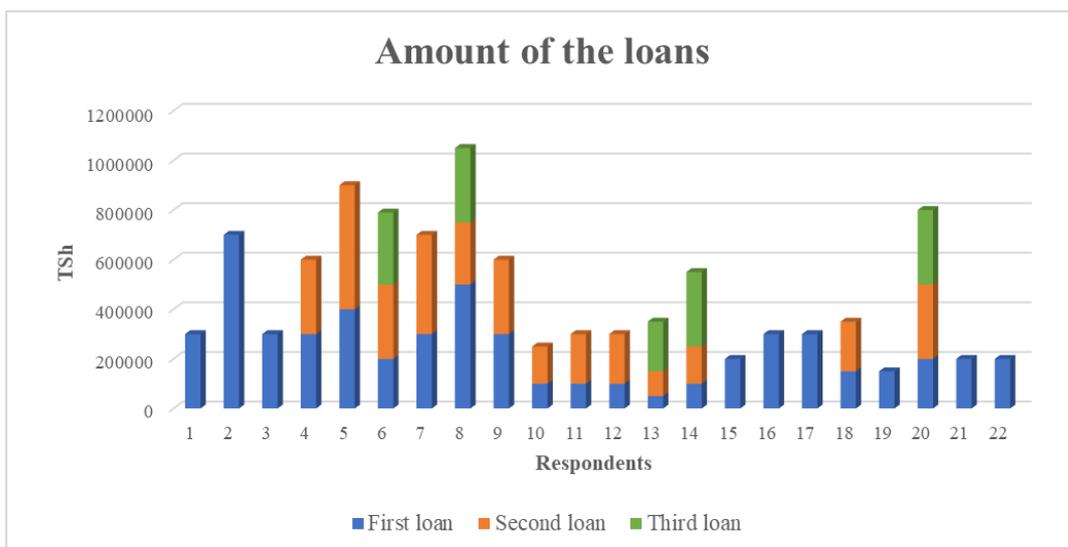


Figure 22 - Amount of the loans

*Utilisation* - All respondents stated that they used credit to start or expand their economic activity, 50% of which are in the agriculture and livestock sector, 32% in small businesses and 18% in the tailoring sector. Additional different uses were for children education and home construction or improvement. Moreover, the job mobility rate is very low, considering that only one person changed jobs after accessing credit four stated that they were unemployed before.

#### **4.4.4. Other findings**

*Hopes for the future* - In answering this question, all respondents referred to expanding their economic activity either in terms of taking more animals to care for or in terms of enlarging their own shop. Other domains included in their hopes concerned providing an education for their children and improving or building a home.

### **4.5. Discussion**

The last section reported the results of the data collection that took place during the field visit. On the basis of these, in the current section, it will be possible to ascertain what positive effects there have been on the lives of the people involved in the research, especially in terms of food security. This analysis will be carried out based on empirical evidence and the concepts that emerged from the literature review in the first chapters, which will be the basis for a cross-interpretation of the data.

When talking about positive outcomes in food security, the first dimension to consider is the increase in the number of meals. To the related question, all respondents stated that as a result of the loan they started to afford three meals a day. The initial situation was, however, very distinct, with everyone having their own family and economic backgrounds. Indeed, the majority of the number of meals before the project ranged between one and two. The increase in the number of meals has two positive interpretations. First, this implies that the microcredit programme may have contributed to the increase in the household's income by raising expenditure on food. Many of the respondents struggled to estimate both before and after the project, how much earnings was devoted to food, remaining one of the questions that was left incomplete. Yet they all hinted at how with access to Rainbow Project this amount increased, along with earnings. At the same time, greater access to food implies that people may have higher

calorie consumption. The experience of an increase in income determines in poor people a transition of consumption, being able to afford high-value calorie sources. Access to food (such as meat) has been cited by many as a positive result of access to the microcredit programme, and the food security findings are positively related to an increase in meat consumption. A significant group of respondents stated that starting a livestock business not only allowed them to increase their income by improving their family status but also allowed them to eat the meat or eggs they produced themselves. In addition, increased income often corresponds to access to healthier and higher-quality food. These elements are reflected in the perceptions of those involved about their diet: with the exception of four people, the group believed that they did not have a complete diet prior to the project precisely because they did not have the resources or the possibility of accessing certain food groups. After the programme was completed, only a small proportion failed to change their diet significantly.

All these features - deity variety, number of meals, quality of food - are well summarised and represented in the FIES survey module. Considering that it already provides questions in order of intensity in the severity of food insecurity, it is interesting to observe how the percentages of answers change depending on the reference period. The percentage of 'yes' answers can be calculated to see the participation of people in the response, thus obtaining a range of severity indicators. In other words, looking at the distribution of affirmative responses leads to calculating the prevalence of food insecurity. In principle, this is accomplished by applying the Rasch model - a psychometric model - to the dataset as per the FAO guidelines. In the case of the present research, although the amount of data was not enough to create statistically representative data, the comparison of the tables shows a clear improvement in terms of food security. For example, as illustrated in Figure 16, 95% of the respondents replied that they felt worried about not having enough food before the project. While the same question is answered affirmatively by 54% in the period after loan repayment. Regarding the possibility of eating healthy and nutritious food, this was not an option for almost 91% of the group in the first period - against 41% in the post-project period. Moving to the central part of the table, half of the group was in a condition where they had to skip meals before receiving credit, and afterwards the rate went down to zero, confirming that everyone reached three meals a day. In fact, the respondents stated that even in the beginning,

although they did not have much to eat, in most cases they still managed to consume a minimum.

A further outcome of the APG23 project is to contribute to improvements in food security regardless of the educational level of the people involved. As opposed to the principle whereby higher educational attainments correspond to better health and nutrition, the collected data show that even people with low or even no schooling were able to achieve improvements in step with the others. The Association in fact gives the same tools to everyone, without distinction. From the non-repayable grant to the initial course are all effective tools that enable everyone to achieve positive results. The economic and management basis offered during the first training period is of particular importance, especially for illiterate people. In this way, everyone has the appropriate resources to start a business. The other main personal factor which hinders the realisation of food security is the family composition. Its structure and the presence/quantity of children contribute to determining their status. A higher number of children impacts more on family conditions, and, in particular, poverty has a higher incidence when children are over five. It is therefore interesting to understand whether the number of children has an impact on the degree of improvement in the collected data. The respondents were mainly widows or without husbands, with dependent children and without a stable source of income. In the case of older women, children were often added to the grandchildren. Cross-checking the survey data does not reveal a particular correlation between the presence of children and greater food insecurity. This may be for two main reasons: firstly, in some cases, the children may have left the family once they reached the age of majority or because of studies; secondly, the questionnaire is set individually so in some aspects the household dimension may be missing.

The final positive outcome of APG23's project is represented by the ability to give opportunities to the people involved. In fact, the final question on hopes for the future captures how the interviewees were still looking for changes in their lives, despite their age and despite the many difficulties they might face. Through the micro-credit programme, not only is economic aid provided, but an attempt is made to give these people a little hope, making them protagonists of their own redemption and helping them to escape from the extreme poverty that often grips them. The common thread running

through their stories is their condition of strong vulnerability, as well as their desire not to give up in the face of difficulties.

In conclusion, the research results demonstrate a positive correlation between microcredit provision and food security status.

#### **4.5.1. Additional Remarks**

Notwithstanding the positive outcomes reported, it is possible to find methodological and practical limitations to the research conducted. The following remarks correspond to the main limits and challenges encountered during the research and the relative improvements for future research.

Firstly, for a better application of the FIES survey module, it would be necessary to enlarge the research sample so as to obtain statistically relevant estimates. In this way, having access to more people leads to a more complete and comprehensive view of the phenomenon. This would also be feasible considering the coverage the project has had over its twenty years of operation. An additional improvement corresponds to an increased knowledge of the place and the personal history of the people involved to facilitate the data collection process. A longer period of field visits would in fact make it possible to meet people even in contexts other than data collection in order to gain an overview of their condition.

Secondly, the language barrier was evident and highly limiting. On my side, the need for an interpreter did not make me fully grasp the answers. Some information may have been lost in the translation process. In addition, not being able to interact with respondents in their mother tongue contributed to widening the cultural gap among us. On their side, instead, not all questions were correctly understood by the respondents. Some data could not be collected due to these misinterpretations as well as difficulties in recalling memories from the past.

Thirdly, when carrying out the questionnaires, the presence of the operators may have influenced the answers or the behaviour of the people interviewed, notwithstanding, as already mentioned, their presence was a fundamental point of connection. A possible solution to this could be to have the questionnaires conducted anonymously, even if this would cause problems of accessibility for the illiterate or those with poor comprehension skills.

Lastly, future research on the topic may include the caloric component in order to better understand and investigate in detail the impact that microcredit has on food security.

## CONCLUSION

The initial chapters cover a comprehensive literature review, based on the central concepts of food security and microfinance. In the first chapter, food security is introduced and presented through its definition and evolution as well as the concepts of vulnerability and the relative indicators. The analysis of the topic proved that despite being a basic and natural condition for human existence, food security still cannot be taken for granted. Microfinance has been presented in Chapter 2 with the components of mission, actors - financial providers - and instruments - financial services. The following focus on Tanzania present its socioeconomic context, with a special emphasis on the dimensions of food security and microfinance within the country. These sections are relevant to the following case study dedicated to the Rainbow Project of Associazione Papa Giovanni XXIII, currently taking place in Tanzania. In addition to a general presentation of the Association and the project, the final chapter represents the core of the research with an analysis of the field visit. Focused on the district of Iringa, the data collection involved a group of twenty-two people who participated in the project's microcredit programme.

The research question directed the research, which in fact was aimed at demonstrating whether the implementation of microfinance has a positive impact on food security. From the literature review framework, the case study contributed to prove the contribution of microfinance on the nutritional status of respondents. In the present concluding remarks, the outcomes will be analysed from a comprehensive perspective, so that necessary changes and solutions can be grasped.

Despite its proven positive impacts, including on food security, microfinance cannot be considered the only applicable instrument. As also argued in Chapter 2, “*no single intervention can defeat poverty*” (Littlefield et al., 2003). Microfinance is a single action, and one cannot solve the complexity of food security with only one form of intervention. For example, in the domain of food security, the literature review helped to understand what interventions are most urgently needed - storage system and reduction of post-harvest losses - especially in developing states. Such large-scale measures would therefore contribute to the fulfilment of the four dimensions of food security, namely availability, access, utilisation and stability. The case study showed how a multi-sectoral approach is necessary to address such issues and to ensure that micro-credit is a valid and

effective tool. In addition, besides being associated with other types of intervention, it is important that microfinance or financial inclusion programmes be sustainable and ongoing. In this way, their impact is intensified and contributes to the improvement of socio-economic and health status.

Given the importance of a multilevel approach, the following remarks derived from the evidence on the field. The case study has shown how in Tanzania the majority of microfinance customers are mostly low-income earners. In the context of rural areas, their profile typically corresponds to small farmers and other people working in small income-generating activities so that microcredit loans are a tool to combat poverty. In this way, microcredit helps economically excluded populations develop more assets and financial security to improve their food security. In fact, through the micro-credit programme, not only is economic help given, but also the chance to redeem themselves socially and escape from extreme poverty. Interviewed people and APG23's practice showed how this process is only possible through a bottom-up approach. The APG23's Rainbow Project resulted to be a positive example in the support they give to households based on their needs and without imposing intervention schemes. In this way, low-income people can become the protagonists of intervention programmes, by making their necessities the focus. To conclude, the implementation of local projects, including those which combine microfinance and food security, need both proximity to beneficiaries needs and a multi-sectoral approach. Thus, for remarkable, long-term results to be achieved, need to be aimed at removing the root causes of marginalisation and poverty.

## REFERENCES

### *Books and academic articles*

AGRA, Bill & Malinda Gates Foundation, Federal ministry for Economic Cooperation and Development, The Rockefeller Foundation, UKAID, & USAID. (2020). *Reducing post-harvest losses key to ensuring food security*.

Ahlén, M. (2012). *Rural Member-Based Microfinance Institutions: A field study assessing the impacts of SACCOS and VICOBA in Babati district, Tanzania*. DIVA. <https://urn.kb.se/resolve?urn=urn:nbn:se:sh:diva-16882>

Ahmad, Q.K. and Hossain, M. (1984) An Evaluation of Selected Policies and Programmes for Alleviation of Rural Poverty in Bangladesh. Dhaka: Bangladesh Institute of Development Studies.

Aikaeli, J., Mtui, J., & Tarp, F. (2021). Rural-Urban migration, urbanisation and unemployment: The case of Tanzania mainland. *African Journal of Economic Review*, 9(1), 87–108. <https://doi.org/10.22004/ag.econ.308767>

Ali, D., Kuntal, K.S., Phuong, N., Michael, T., Purnima, M., Rahul, R., Marie, R. (2013). Is household food insecurity associated with child undernutrition? A multi-country study using data from Bangladesh, Ethiopia and Vietnam. Unpublished manuscript, The International Food Policy Research Institute (IFPRI).

Arshad, A. (2022). Impact of financial inclusion on food security: evidence from developing countries. *International Journal of Social Economics*, 49(3), 336–355. <https://doi.org/10.1108/ijse-08-2021-0462>

Aryeetey, E. (2004) Household asset choice among the rural poor in Ghana. Accra, Ghana: Institute of Statistical, Social and Economic Research, University of Ghana

Atkinson, A. B., & Lugo, M. (2010). Growth, poverty and distribution in Tanzania. Working paper 10/0831, International growth centre London school of economics and political science.

Bamwenda, E. (2019). The Symptoms of the Shift towards an Authoritarian State in Tanzania's President John Pombe Magufuli's rule. *Politeja*, 15(56), 123–150. <https://doi.org/10.12797/politeja.15.2018.56.08>

Banerjee, S. (2009) How Microfinance Changes the Lives of Millions, One person at a time. *Foreign Policy*

Bartfeld, J. & Collins, J.M. (2017) Food insecurity, financial shocks, and financial coping strategies among house-holds with elementary school children in Wisconsin. *Journal of Consumer Affairs*, 51(3), 519–548.

Bateman, M., Blankenburg, S., & Kozul-Wright, R. (2019). *The rise and fall of global microcredit: Development, Debt and Disillusion*. Routledge.

Bawadi, H.A., Tayyem, R.F., Dwairy, A.N. and Al-Akour, N. (2012), “Prevalence of food insecurity among women in northern Jordan”, *Journal of Health, Population, and Nutrition*, Vol. 30 No. 1, p. 49.

Beck, T., Demirgüç-Kunt, A. and Levine, R. (2000), € “A new database on the structure and development of the financial sector”, *The World Bank Economic Review*, Vol. 14 No. 3, pp. 597-605.

Berg, A., & Ostry, J. (2013). Inequality and unsustainable growth: Two sides of the same coin? *International Organisations Research Journal*, 8(4), 77–99.

Birkenmaier, J., Huang, J. & Kim, Y. (2016) Food insecurity and financial access during an economic recession:evidence from the 2008 SIPP.*Journal of Poverty*, 20(2), 194–213.

BMZ, CGAP, and IFC. 2011. “Advancing Responsible Finance for Greater Development Impact: A Stock-Taking of Strategies and Approaches among Development Agencies and Development Finance Institutions.” Consultation draft, Responsible Finance Forum, Bonn and Washington, DC.

Boerma, A. H. (1976) *A Right to Food. A Selection of Speeches* (Rome: FAO)

Bouis, H., Haddad, L., & Kennedy, E. (1992). Does it matter how we survey demand for food?: Evidence from Kenya and the Philippines. *Food Policy*, 17(6), 349–360.

Bouis, H. E. (1994). The effects of income on demand for food in poor countries: are our food databases giving us reliable estimates? *Journal of Development Economics*, 44(1), 199–220.

Bradbury, M. (2000) ‘Normalizing the crisis in Africa’, *The Journal of Humanitarian Assistance*

Brown, A., P. Mackie, A. Smith and C. Msoka. (2015). *Financial inclusion and Microfinance in Tanzania. Inclusive Growth: Tanzania Country Report*. Cardiff University.

Carman, K. G., & Zamarro, G. (n.d.). Does Financial Literacy Contribute to Food Security? *Int J Food Agric Econ.*, 4(1), 1–19.

Clarke, G.R.G., Xu, L.C. and Zou, H.F. (2006), “Finance and income inequality: what do the data tell us?”, *Southern Economic Journal*, Vol. 12 No. 28, pp. 578-596.

Collins, Daryl, Jonathan Morduch, Stuart Rutherford, and Orlanda Ruthven. 2009. *Portfolios of the Poor: How the World’s Poor Live on \$2 a Day*. Princeton, NJ: Princeton University Press.

CARE (2003) ‘Managing Risk, Improving Livelihoods: Program Guidelines for Conditions of Chronic Vulnerability.’ CARE Eastern/Central Africa Regional Management Unit, Nairobi

- Cochrane, N., & D'Souza, A. (2015). Measuring Access to food in Tanzania: A Food Basket approach. *Amber Waves*, 2, 1–13. <https://doi.org/10.22004/ag.econ.198784>
- Conte, Annalisa and Morrow, Nathan, (2002), Mali: Rural Community and Household food Security Profiles, Vulnerability Analysis and Mapping, World Food Programme report, Rome,
- Cordeiro, L. S., Wilde, P. E., Semu, H., & Levinson, F. J. (2012). Household food security is inversely associated with undernutrition among adolescents from Kilosa, Tanzania. *Journal of Nutrition*, 142(9), 1741–1747.
- Crush, J., & Caesar, M. (2014). City without choice: urban food security in Msunduzi, South Africa. *Urban Forum*, 25, 165–175. doi:10.1007/s12132-014-9218-4.
- Daley-Harris, S. (2005). "State of the Microcredit Summit Campaign Report."
- Deaton, A. (2010). Price indexes, inequality, and the measurement of world poverty. Atlanta: Presidential Address to the American Economic Association.
- Deaton, A., & Dupriez, O. (2011). Purchasing power parity exchange rates for the global poor. *American Economic Journal: Applied Economics*, 3(2), 137–166.
- Demirgüç-Kunt, A. and Klapper, L.F. (2012), Measuring Financial Inclusion: The Global Findex Database, working paper, (6025), World bank policy research.
- Devereux, S., Sharp, K. and Yared Amare (2003) 'Destitution in Wollo, Ethiopia', IDS Research Report 55. Brighton: Institute of Development Studies
- DFID (2002) 'Eliminating Hunger: DFID Food Security Strategy and Priorities for Action', Consultation Document. [www.sarpn.org.za/documents/d0000072/P74\\_DFID.pdf](http://www.sarpn.org.za/documents/d0000072/P74_DFID.pdf)
- Diao, X., Hazell, P., Thurlow, J. (2010). The role of agriculture in African development. *World Development* 38 (10), 1375–1383.
- Doss, C.R., Deere, C.D., Oduro, A.D., Swaminathan, H., Suchitra, J.Y., Lahoti, R., Baah-Boateng, W., Boakye-Yiadom, L., Contreras, J. & Twyman, J. (2011) The gender asset and wealth gaps: evidence from Ecuador, Ghana, and Karnataka, India.
- Dupas, P. & Robinson, J. (2009) *Savings constraints and microenterprises development: Evidence from a field experiment in Kenya*. National Bureau of Economic Research.
- Ehrbeck, Tilman, Mark Pickens, and Michael Tarazi. 2012. "Financially Inclusive Ecosystems: The Roles of Government Today." Focus Note 76, CGAP, Washington, DC, February
- ESRF. (2014). *Tanzania human development report 2014*. Dar es Salaam: ESRF.
- FAO (1943) United Nations Conference on Food and Agriculture. Hot Springs, Virginia, May 18–June 3. Final Act and Section Reports (Washington, DC: United States Government Printing Office).

- FAO. (1996). Rome declaration on world food security and world food summit plan of action, <http://www.fao.org/DOCREP/003/W3613E/W3613E00.HTM>.
- FAO (1997) Report of the World Food Summit.
- FAO (1999) *Food Aid Convention*
- FAO. (2008). ‘Nutrition Country Profile United Republic of Tanzania’. Food and Agriculture Organization.
- FAO. (2010). Guidelines for measuring household and individual dietary diversity. FAO.
- FAO (2020) Gendered impacts of COVID-19 and equitable policy responses in agriculture, food security and nutrition. Rome. <https://doi.org/10.4060/ca9198en>
- FAO, IFAD, UNICEF, WFP and WHO (2023) The State of Food Security and Nutrition in the World 2023. Urbanization, agrifood system transformation and healthy diets across the rural–urban continuum. Rome, FAO. <https://doi.org/10.4060/cc3017en>
- FAO, IFAD, WFP, & UNSGSA. (2013, March). Inclusive Finance for Food Security and Rural Development: Challenges and Opportunities The shared perspective of the UN Rome based agencies (FAO, IFAD, WFP) and the UNSGSA. *UN Department of Economic and Social Affairs*. <https://sdgs.un.org/sites/default/files/documents/1820foodsecurity.pdf>
- FSIN and Global Network Against Food Crises. (2023) *GRFC 2023*. Rome.
- Gabbert, S., & Weikard, H. P. (2001). How widespread is undernourishment? A critique of measurement methods and new empirical results. *Food Policy*, 26, 209–228.
- Galiè, A., Teufel, N., Girard, A. W., Baltenweck, I., Domínguez-Salas, P., Price, M., Jones, R. E., Lukuyu, B. A., Korir, L., Raskind, I. G., Smith, K., & Yount, K. M. (2019). Women’s empowerment, food security and nutrition of pastoral communities in Tanzania. *Global Food Security*, 23, 125–134. <https://doi.org/10.1016/j.gfs.2019.04.005>
- Gentilini, Ugo, (2002), Sviluppo dell’ aiuto alimentare ed aiuto alimentare per lo sviluppo, Università Degli Studi di Roma Tre, Facoltà di Economia, Rome, 2002
- Girabi, F., & Mwakaje, A. E. G. (2013). Impact of microfinance on smallholder farm productivity in tanzania: The case of iramba district. *Asian Economic and Financial Review*, 3(2), 227. Retrieved from <https://www.proquest.com/scholarly-journals/impact-microfinance-on-smallholder-farm/docview/1417578084/se-2>
- Goedde, L., Ooko-Ombaka, A., & Pais, G. (2019, 02 15). ‘Winning in Africa’s agricultural market’.
- Goldberg, N. (2005). Measuring the Impact of Microfinance: Taking Stock of What We Know. *Grameen Foundation USA Publication Series*.
- Goldberg, N., & Karlan, D. (2006). The Impact of Microfinance: A Review of Methodological Issues. *Innovations for Poverty Action, the Financial Access Initiative*.

- Gray, H. (2015). The political economy of grand corruption in Tanzania. *African Affairs*, 114(456), 382–403. <https://doi.org/10.1093/afraf/adv017>
- Headey, D., & Ecker, O. (2013). Rethinking the measurement of food security: from first principles to best practice. *Food Security*, 5(3), 327–343. <https://doi.org/10.1007/s12571-013-0253-0>
- Hambridge, G. (1955) *The Story of FAO* (New York: D. Van Nostrand Co., Inc.).
- Hatloy, A., Hallund, J., Diarra, M.M. & Oshaug, A. 2000. Food variety, socioeconomic status and nutritional status in urban and rural areas in Koutiala (Mali). *Public Health Nutrition* 3: 57-65.
- Hoddinott, J. & Yohannes, Y. 2002. Dietary diversity as a food security indicator. FANTA 2002, Washington DC. (available at <http://www.aed.org/Health/upload/dietarydiversity.pdf>)
- Howe, P. and Devereux, S. (2004) ‘Famine Intensity and Magnitude Scales: A Proposal for an Instrumental Definition of Famine’, *Disasters*, 28(4): 353-372.
- Islam, A., & Maitra, P. (2012). Health shocks and consumption smoothing in rural households: Does microcredit have a role to play? *Journal of Development Economics*, 97(2), 232–243. <https://doi.org/10.1016/j.jdeveco.2011.05.003>
- Jalilian, H. & Kirkpatrick, C. (2002) Financial development and poverty reduction in developing countries. *Inter-national journal of finance & economics*, 7(2), 97–108.
- Jamnadass, R., Place, F., Torquebiau, E., Malézieux, E., Iiyama, M., Sileshi, G. W., Kehlenbeck, K., Masters, E., McMullin, S., Weber, J. C., & Dawson, I. K. (2013). Agroforestry, food and nutritional security. <https://doi.org/10.5716/wp13054.pdf>
- Jensen, R. T., & Miller, N. H. (2010). A revealed preference approach to measuring hunger and undernutrition. <https://doi.org/10.3386/w16555>
- JIMAT, NUDEC, & UNICEF. (2019). *Evaluation of the In-Service National Training Programme for Nutrition Officers in Tanzania, 2014/15*.
- Karlan D. & Zinman, J. (2010) *Expanding Microenterprise Credit Access: Using Randomized Supply Decisions to Estimate the Impacts in Manila*.
- Kessy, S., & Urio, F. (2006). *The Contribution of Microfinance Institutions to Poverty Reduction in Tanzania*. Research on Poverty Alleviation (REPOA). Mkuki na Nyota Publishers.
- Khandker, S., (2005) Microfinance and poverty: Evidence using panel data from Bangladesh. *The World Bank Economic Review*, 19
- King, R.G. and Levine, R. (1993), “Finance and growth: Schumpeter might be right”, *The Quarterly Journal of Economics*, Vol. 108 No. 3, pp. 717-737.

Knueppel, D., Demment, M., & Kaiser, L. (2010). Validation of the Household Food Insecurity Access Scale in rural Tanzania. *Public Health Nutrition*, 13(3), 360-367. doi:10.1017/S1368980009991121

Koomson, I., Villano, R.A. & Hadley, D. (2020) Effect of financial inclusion on poverty and vulnerability to poverty: evidence using a multidimensional measure of financial inclusion. *Social Indicators Research*, 25(4),375–387.

Koomson, I., Villano, R.A. & Hadley, D. (2020) Effect of financial inclusion on poverty and vulnerability to poverty: evidence using a multidimensional measure of financial inclusion. *Social Indicators Research*, 25(4),375–387.

Koomson, I., Martey, E. & Etwire, P.M. (2022) Mobile money and entrepreneurship in East Africa: the mediating roles of digital savings and access to digital credit. *Information Technology & People*.

Koomson, I., Asongu, S. A., & Acheampong, A. O. (2022). Financial inclusion and food insecurity: Examining linkages and potential pathways. *Journal of Consumer Affairs*, 57(1), 418–444. <https://doi.org/10.1111/joca.12505>

Langa N, Bhatta T (2020) The rural-urban divide in Tanzania: Residential context and socioeconomic inequalities in maternal health care utilization. *PLoS ONE* 15(11): e0241746. <https://doi.org/10.1371/journal.pone.0241746>

Ledgerwood, J. (1999). *Microfinance Handbook: An Institutional and Financial Perspective*. World Bank Publications.

Ledgerwood, Joanna. (2013) *The New Microfinance Handbook : A Financial Market System Perspective*. © Washington, DC: World Bank. <http://hdl.handle.net/10986/12272>

Leatherman, S., Metcalfe, M., Geissler, K. H., & Dunford, C. (2011). Integrating microfinance and health strategies: examining the evidence to inform policy and practice. *Health Policy and Planning*, 27(2), 85–101. <https://doi.org/10.1093/heapol/czr014>

Littlefield, E., Morduch, J., & Hashemi, S. (2003). Is Microfinance An Effective Strategy To Reach The Millennium Development Goals? *Focus Note*, n. 24.

Lopatta, K., Tchikov, M., Jaeschke, R., & Lodhia, S. (2017). Sustainable Development and Microfinance: The effect of outreach and Profitability on microfinance Institutions' Development mission. *Sustainable Development*, 25(5), 386–399. <https://doi.org/10.1002/sd.1663>

Madole, H. (2013). *The impact of microfinance credit on the performance of SMEs in Tanzania: a case study of national microfinance bank-Morogoro*. <http://scholar.mzumbe.ac.tz/bitstream/11192/492/1/MBA%20CM%20Dissertation%20-%20Hamisi%20Madole-2013.pdf>

Maliti, E. (2018). Inequality in Education and Wealth in Tanzania: A 25-Year Perspective. *Social Indicators Research*, 145(3), 901–921. <https://doi.org/10.1007/s11205-018-1838-y>

- Mashindano, O. & Maro, F. (2011) Growth without poverty reduction in Tanzania: Reasons for the mismatch. CPRC Working Paper 207.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370–396.
- Maxwell, S. (1996) ‘Food Security: A Post-Modern Perspective’, *Food Policy*, vol. 21, no. 2, pp. 155–70.
- Maxwell, S. (2001) ‘The Evolution of Thinking About Food Security’ in S. Devereux and Phillips, R. W. (1981) *FAO: Its Origins, Formation and Evolution 1945–1981* (Rome: Food and Agriculture Organization of the United Nations). S. Maxwell *Food Security in Sub-Saharan Africa* (London: ITGD Publishing).
- McKinnon, R. I. (1973) *Money and Capital in Economic Development*. Washington, DC: Brookings Institution.
- McMichael, P. (2009), “A food regime genealogy”, *The Journal of Peasant Studies*, Vol. 36 No. 1, pp. 139-169.
- Melber, H. (2015, January 1). *Post-liberation democratic authoritarianism : the case of Namibia*. <http://hdl.handle.net/2263/49189>
- Ministry of Finance. (2023). *The Economic Survey 2022*.
- Ministry of Health (MoH) [Tanzania Mainland], Ministry of Health (MoH) [Zanzibar], National Bureau of Statistics (NBS), Office of the Chief Government Statistician (OCGS), and ICF (2023) *Tanzania Demographic and Health Survey and Malaria Indicator Survey 2022 - Key Indicators Report*. Dodoma, Tanzania, and Rockville, Maryland, USA: MoH, NBS, OCGS, and ICF.
- MoHCDGEC, MoH, TFNC, NBS, OCGS, and UNICEF. (2018). ‘Tanzania National Nutrition Survey using SMART Methodology (TNNS) 2018’. Dar es Salaam, Tanzania
- Mwageni et al., (2022). Socio-economic Status and Health Inequalities in Rural Tanzania: Evidence from the Rufiji Demographic Surveillance System. In *Routledge eBooks* (pp. 19–32). <https://doi.org/10.4324/97811351126595-2>
- MkNelly, B. and D. Christopher, 1999. Impact of credit with education on mothers and their young children’s nutrition: Crecer credit with education program in bolivia. *Freedom from Hunger Research Paper No. 5*. Davis, CA: Freedom from Hunger.
- Mkwawa, E. P. (2005). *The impact of microfinance activities in Dar Es Salaam : a case of Dar Es Salaam Community Bank Limited and Pride Tanzania*. <https://hdl.handle.net/10474/241>
- Moseson, H., Hamad, R., & Fernald, L. C. H. (2014). Microcredit participation and child health: results from a cross-sectional study in Peru. *Journal of Epidemiology and Community Health*, 68(12), 1175–1181. <https://doi.org/10.1136/jech-2014-204071>
- Nel, P. (2006). The return of inequality. *Third World Quarterly*, 27(4), 689–706.

- Nissanke, M., & Thorbecke, E. (2006). Channels and policy debate in the globalization–inequality–poverty nexus. *World Development*, 34(8), 1338–1360.
- Nubé, M. (2001). Confronting dietary energy supply with anthropometry in the assesment of undernutrition prevalence at the level of countries. *World Development*, 29(7), 1275–1289.
- O’Dell, K. (2010) *Measuring the Impact of Microfinance: Taking Another Look*. Grameen Foundation, Washington, DC.
- Odell, K. (2015). *Measuring the Impact of Microfinance: Looking to the Future*. Grameen Foundation Publication Series.
- Omar, M.A. and Inaba, K. (2020), “Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis”, *Journal of Economic Structures*, Vol. 9 No. 1, pp. 1-25.
- Osei, A., Pandey, P., Spiro, D., Nielson, J., Shrestha, R., Talukder, Z., et al. (2010). Household food insecurity and nutritional status of children aged 6 to 23 months in Kailali District of Nepal. *Food and Nutrition Bulletin*, 31(4), 483–494.
- Pantaleo, I., & Chagama, A. M. (2016). Impact of microfinance institutions on household welfare in Tanzania: Propensity score matching approach. *The African Review*, 45(2), 168–204. <http://journals.udsm.ac.tz/index.php/ar/article/view/2467>
- Pauw, K., & Thurlow, J. (2011). Agricultural growth, poverty, and nutrition in Tanzania. *Food Policy*, 36(6), 795–804. <https://doi.org/10.1016/j.foodpol.2011.09.002>
- Peprah, J.A., Koomson, I., Sebu, J. & Bukari, C. (2020) Improving productivity among smallholder farmers in Ghana: does financial inclusion matter? *Agricultural Finance Review*, 81, 481–502.
- Perotti, R. (1996). Growth, income distribution and democracy: What the data say. *Journal of Economic Growth*, 1(2), 149–187.
- Pitt, M.M., Khandker, S.R., 2002. Credit programmes for the poor and seasonality in rural Bangladesh. *Journal of Development Studies* 39 (2), 1–24.
- Ravallion, M. (2005). Inequality is bad for the poor. World Bank Policy Research Working Paper 3677, <http://dx.doi.org/10.1596/1813-9450-3677>.
- Robinson, M. S. (2001). *The Microfinance Revolution*, The World Bank and Open Society Institute.
- Ruel, M. (2003). Operationalizing dietary diversity: A review of measurement issues and research priorities. *Journal of Nutrition*, 133, 3911S–3926S.
- Seivwright, A.N., Callis, Z. and Flatau, P. (2020), “Food insecurity and socioeconomic disadvantage in Australia”, *International Journal of Environmental Research and Public Health*, Vol. 17 No. 2, p. 559.

- Shaw, E. S. (1973) *Financial Deepening in Economic Development*. New York: Oxford University Press.
- Shaw, D. John, (2007), *World Food Security: A History Since 1945*, Palgrave Macmillan, Basingstoke, Hampshire, UK and New York, USA, 2007
- Sibrian, R. (2008). *Deriving Food Security Statistics from National Household Surveys: Experience, Achievements and Challenges*. In R. Sibrian (Ed.), *Deriving food security information from national household budget surveys: Experience, achievements and challenges*. Rome: Food and Agriculture Organization of the United Nations.
- Sila, O. and Pellokila, R. (2007), *Socioeconomic Indicators Affecting Food Security*, University of Philippines at Los Banos, Los Banos, Vol. 1.
- Simon, G.-A. (2012, March). *Food Security: Definition, Four Dimensions, History*. University of Roma Tre, Faculty of Economics, 2012.
- Smith, M., Pointing, J. and Maxwell, S.(1993), *Household Food Security, concepts and Definitions: An annotated Bibliography*. Brighton, Institute of Development Studies
- Smith, L. C. (1998). Can FAO'S measure of chronic undernourishment be strengthened? *Food Policy*, 23(5), 425–445.
- Smith, L., & Subandoro, A. (2007). *Food security in practice: Measuring food security using household expenditure surveys*. Washington DC: International Food Policy Research Institute.
- Svedberg, P. (1999). 841 Million undernourished? *World Development*, 27(12), 2081–2098.
- Svedberg, P. (2002). Undernutrition overestimated. *Economic Development and Cultural Change*, 51(1), 5–36.
- Thorbecke, E., & Charumilind, C. (2002). Economic inequality and its socioeconomic impact. *World Development*, 30(9), 1477–1495.
- Tornimbeni, C., & Soave, P. (2023). *Democrazia, populismo e autoritarismo*. FrancoAngeli.
- UNICEF. (2019). *Evaluation of the 2014/15 National In-service Training Programme for Nutrition Officers in Tanzania*. In *UNICEF*.
- United Republic of Tanzania (URT) (2013). *Key Findings 2011/12 Household Budget Survey Tanzania Mainland*. National Bureau of Statistics (NBS), Dar es Salaam.
- United Republic of Tanzania (URT). 2012. *The Tanzania Five Year Development Plan 2011/2012-2015/2016*, June
- United Republic of Tanzania (URT). (2014). *National Nutrition Social and Behavior Change Communication Strategy*.
- United Republic of Tanzania (URT) (2016a) *The Tanzania Five Year Development Plan 2016/2017-2020/2021*

United Republic of Tanzania (URT). (2016b). *The Tanzania National Multisectoral Nutrition Action Plan*.

United Republic of Tanzania & Ministry of Agriculture. (2019). 'National Postharvest Management Strategy'.

United Republic of Tanzania & Ministry of Health. (1992). *The Food and Nutrition Policy for Tanzania*.4

United Republic of Tanzania & Ministry of Health and Social Welfare. (2012). *National Nutrition Strategy July 2011/12 – June 2015/16*.

United Republic of Tanzania & Ministry of Financial and Planning. (2017). *National Microfinance Policy 2017*.

Valdés, A., Foster, W. (2010) Reflections on the role of agriculture in pro-poor growth. *World Development*. doi:10.1016/j.worlddev.2010.06.003.

Vivas, E. (2009), "Food crisis—causes consequences and alternatives, international view point", *International View Point*, Vol. 1 No. 1, pp. 1-10.

Von Braun, J. (2007). *The world food situation: New Driving Forces and Required Actions*. Intl Food Policy Res Inst.

Webster, Leila, Randall Riopelle, and Anne-Marie Chidzero. 1996. *World Bank Lending for Small Enterprises, 1989–1993*. World Bank Technical Paper 311. Washington, D.C

Wenban-Smith, H. B., Faße, A., & Grote, U. (2016). Food security in Tanzania: the challenge of rapid urbanisation. *Food Security*, 8(5), 973–984. <https://doi.org/10.1007/s12571-016-0612-8>

World Bank. (2007). *Tanzania sustaining and sharing economic growth. Country economic memorandum and poverty assessment*. Washington, DC: World Bank.

World Bank Group. (2015, March 1). *Tanzania Mainland Poverty Assessment*. <http://hdl.handle.net/10986/22021>

World Bank (2017), "Agriculture for Development, World Development Report 2017", available at: [http://siteresources.worldbank.org/INTWDR2008/Resources/WDR\\_00\\_book.pdf](http://siteresources.worldbank.org/INTWDR2008/Resources/WDR_00_book.pdf).

World Bank (2023a). *Tanzania Economic Update - The Efficiency and Effectiveness of Fiscal Policy in Tanzania*. World Bank. <http://documents.worldbank.org/curated/en/099091823115598061/P1796100836f74008096c60cb74977ab2f5>

World Bank (2023b). *Tanzania - Systematic Country Diagnostic : Information Notice*. World Bank. <http://documents.worldbank.org/curated/en/099062223163541864/P5001630577b82010ad3309e58ae358ffc>

World Bank. (2021). *Poverty & Equity Brief - Tanzania*. In [www.worldbank.org/poverty](http://www.worldbank.org/poverty).

World Bank, AERC & AfDB. (2012). *Service delivery indicators: Education and Health*. Washington: World Bank.

WFP (n.d.) Vulnerability Analysis and Mapping. A tentative methodology. Rome: WFP

WFP (2005a) Emergency Food Security Assessment Handbook. Rome: WFP

WFP (2005b) 'Food Security and Vulnerability Analysis Report: Haiti'. Rome: WFP VAM Branch

WFP. (2006). Distinguishing between Chronic and Transitory Food Insecurity in Emergency Needs Assessments. WFP.

WFP, (2009), "Hunger and Markets", World Hunger Series, WFP, Rome and Earthscan, London, 2009

Yunus, M., & Jolis, A. (2003). Banker to the poor: micro-lending and the battle against world poverty. Rev. and updated pbk. ed. New York, NY, PublicAffairs.

Zeller, M. (1999). The Role of Micro-Finance for Income and Consumption Smoothing. *Conference on Social Protection and Poverty*.

### Websites

APG23. (n.d.). *Tanzania*. <https://www.apg23.org/it/tanzania/>

APG23.(n.d.-a). *Chi siamo*.  
[https://www.apg23.org/it/la\\_comunita\\_papa\\_giovanni\\_xxiii/](https://www.apg23.org/it/la_comunita_papa_giovanni_xxiii/)

APG23. (n.d.-c). *UN mission*. <https://unoffice.apg23.org/>

APG23. (2018). *Storie e numeri di un anno accanto agli ultimi*. [https://www.apg23.org/downloads/files/BILANCIO\\_APG23\\_2021.pdf](https://www.apg23.org/downloads/files/BILANCIO_APG23_2021.pdf)

APG23. (2022). *REPORT ANNUALE 2022 - Rainbow Project*.

Barbarossa, D. (2020, August). L'Economia di condivisione non è la Sharing Economy. *Vita*.

Cadre Harmonisé | IPC - Integrated Food Security Phase Classification. (n.d.). <https://www.ipcinfo.org/ch/>

Ehsani, M. (2021, September 21). *YieldWise*. The Rockefeller Foundation. <https://www.rockefellerfoundation.org/initiative/yieldwise/>

FAOSTAT. (n.d.). *United Republic of Tanzania* <https://www.fao.org/faostat/en/#country/215>

FinScope. (2023). *FinScope Tanzania 2023*. <https://www.fsdt.or.tz/wp-content/uploads/2023/07/Finscope-Tanzania-2023-Report-Key-Insights-One-Pager.pdf>

FIVIMS (2002) 'Understanding Food Insecurity and Vulnerability: Tools and Tips', [www.fivims.net/images/ToolsandTips/ToolsandTips/English/UnderstandingFS\\_EN.pdf](http://www.fivims.net/images/ToolsandTips/ToolsandTips/English/UnderstandingFS_EN.pdf)

*Freedom from Hunger.* (n.d.). Grameen Foundation. <https://grameenfoundation.org/freedom-from-hunger>

Human Rights Watch (2023, April 27). *Tanzania | Country Page | World | Human Rights Watch.* <https://www.hrw.org/africa/tanzania-and-zanzibar>

IPC. (2022). *Acute Food Insecurity Analysis.* [https://www.ipcinfo.org/fileadmin/user\\_upload/ipcinfo/docs/IPC\\_Tanzania\\_Acute\\_Food\\_Insecurity\\_2022Oct2023May\\_Report\\_Mainland.pdf](https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Tanzania_Acute_Food_Insecurity_2022Oct2023May_Report_Mainland.pdf)

Masters, L. (2008). The Global Food Crisis and the Challenge of Food Security. AISA POLICYbrief. <https://www.africaportal.org/publications/the-global-food-crisis-and-the-challenge-of-food-security/>

World Bank (1986) *Poverty and Hunger: Issues and Options for Food Security in Developing Countries.* Washington DC. [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1999/09/17/000178830\\_98101901455676/Rendered/PDF/multi\\_page.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1999/09/17/000178830_98101901455676/Rendered/PDF/multi_page.pdf)

World Bank. (n.d.). *Overview - Tanzania.* <https://www.worldbank.org/en/country/tanzania/overview>

World Economics (n.d.). *Tanzania.* <https://www.worlddeconomics.com/Inequality/Gini-Coefficient/Tanzania.aspx>

WFP. (2020). 'Tanzania.' <https://www.wfp.org/countries/tanzania>

## APPENDICES

### APPENDIX 1 – STRUCTURED QUESTIONNAIRE INTERVIEWS

#### Individual characteristics

Name \_\_\_\_\_ Age \_\_\_\_\_

Marital status:

- Partner's job: \_\_\_\_\_

Do you have children? YES NO

- How many? \_\_\_\_\_

Education: until which class did you study?

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#### Employment status

**Before the project**, did you have any job? YES NO

o If yes, what job? \_\_\_\_\_

o Do you remember how much did you earn?

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**During/after the project**, do you have any job?

o If yes, what job?

- Is it the same one?
- If not, why have you change it?

o How much you earn?

#### Food security level

##### FAO FIES survey module

Was there a time when, because of lack of money or other resources:

	(before the project)		(during the last 12 months)	
	YES	NO	YES	NO
1. You were worried you would not have enough food to eat?				

- |  |     |    |     |    |
|--|-----|----|-----|----|
| 2. You were unable to eat healthy and nutritious food? | YES | NO | YES | NO |
| 3. You ate only a few kinds of foods?                  | YES | NO | YES | NO |
| 4. You had to skip a meal?                             | YES | NO | YES | NO |
| 5. You ate less than you thought you should?           | YES | NO | YES | NO |
| 6. Your household ran out of food?                     | YES | NO | YES | NO |
| 7. You were hungry but did not eat?                    | YES | NO | YES | NO |
| 8. You went without eating for a whole day?            | YES | NO | YES | NO |

**Before the project**

Did you experience malnutrition within your family?      YES    NO

o Can you assume the causes?

In your village, did you know cases of Child malnutrition?

Did you have any knowledge on child malnutrition?

How many earnings were devoted to food? \_\_\_\_\_

How many times did you eat in a day? \_\_\_\_\_

Do you believe you had a complete diet? \_\_\_\_\_

**During/after the project**

Do you still experience malnutrition within your family?      YES    NO

Did the nutritional condition within your family changed?      YES    NO

o How? \_\_\_\_\_

How many earnings can you devote to food? \_\_\_\_\_

How many times do you eat in a day? \_\_\_\_\_

Do you believe you have a complete diet? \_\_\_\_\_

### **Microcredit programme**

How did you know about the Rainbow Project? \_\_\_\_\_

Project phase: \_\_\_\_\_

Have you ever used the loan service?

o If yes, how many times?

Amount of loan received: \_\_\_\_\_

In which sector have you used it?     Agriculture         Business         Other

Were you able to repay the loan?

o Was it difficult?

o For which reason?

### **Hopes for the future**

- Do you have any hopes for your future?                      YES                      NO

o For which spheres of your life?

APPENDIX 3 – PICTURES OF RESPONDENTS AND FIELD VISIT



FAUSTINA – respondent n.20



LEONIDA – respondent n.21



CLEMENTINA, YUNIS, DEVOTA,  
ESTER, TULUDIA – respondents of  
Kiwere



NORA – respondent n.9



MARTINA – respondent n.8



SARA – respondent n.6



ROSY – respondent n.7



MONIKA – respondent n.8



Training course



Motivational letters