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**Gendered Pathways to Development: Understanding
the Role of Women in Agrifood Systems and Food
Security in Rural Sub-Saharan Africa**

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A mia mamma, che nei suoi sacrifici ha fatto della sua forza la mia. Ogni mio traguardo è anche il suo. A lei, la prima e l'unica ad avermi mostrato davvero l'Africa e il cuore con cui viverla.

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INTRODUCTION

"If you want to go fast, go alone. If you want to go far, go together". This evergreen African proverb encapsulates a timeless truth about processes: development is a process, not a one-time event and to achieve lasting progress collective and continuous effort is necessary. This is especially true of the complex rural agrifood systems in Sub-Saharan Africa, where food insecurity and poverty are persistent realities hindering the development of local communities. It is in this context that the cooperation of different actors across scales becomes pivotal in shaping resilient, productive and equitable food systems to guarantee food security in rural communities. Why, after decades of development projects in Sub-Saharan Africa, does food insecurity still affect the same region? What is the missing piece of the puzzle hampering the full realisation of food security and the universal right to food?

This thesis seeks to offer a multidimensional analysis of the endemic food insecurity, poverty and malnutrition in vulnerable rural areas of Sub-Saharan Africa (SSA) by shedding light on the role of women in agrifood systems. I argue that gender inequalities, compounded by uneven territorial development, access to resources and environmental stress, act as built-in depressors hindering the development of Sub-Saharan agrifood systems. I here focus on the instrumental and pivotal role of women, who represent the backbone of rural agriculture not only in the African continent, but in the whole world. Women are the world's original food producers, and they are central to the food production system in developing countries. Most of the farmers of the world are women and it is women who make the most significant contribution to food security (Shiva, 2009).

My decision to focus on women's role in rural agrifood systems in SSA is informed by both the scale and the importance of the region's food security. Within this context, rural women's contribution is critical for sustaining household nutrition, agricultural production and preservation of local agrifood practices. According to the World Bank (2025), in many Sub-Saharan African countries, women produce 60-80% of food crops, especially in smallholder and subsistence farming. It is therefore necessary to apply gender-sensitive and transformative and territorially-aware approaches which can tap into the full potential of rural women and support their work in agrifood systems towards the achievement of food security. Despite their active and central contributions, women are often marginalised in development planning and implementation.

This marginalisation is rooted in complex issues of structural gender inequality and the consequent lack of access to resources. Therefore, without recognising and fostering empowerment of rural women and their work, the strenuous efforts to improve food security and achieve local rural development in Sub-Saharan Africa run the risk of being incomplete, unsustainable and not rooted in the territorial and cultural context. I do not aspire to provide an exhaustive picture of agrifood systems in all the countries in SSA, because, as highlighted by Knapman and Sutz (2015), any discourse on gender inequalities in land governance must also take into consideration local contexts and gender dynamics.

However, I aim at underlighting how many women possess labour, skills and knowledge rooted in generations of agricultural practice, but the systemic barriers, such as land tenure rights, restricted access to credit, mobility and exclusion from decision-making processes across multiple scales, impedes them from converting their resources into the achievement

of food security due to a lack, not of effort or knowledge, but of an enabling environment. My objective is not to generalise such a vast region and an heterogeneous group, but rather to shine a light on recurring patterns of gendered dynamics and understand how development interventions can sustain and foster women's contribution to agrifood systems. I reckon that this regional focus can allow for deeper and broader reflections on how food security, gender relationships and development intersect to bring about nuanced insightful reflections. Moreover, I resist essentialising narratives on rural women, always aware that it is not a singular category and that experiences, responsibilities and access to resources are different and depend on a series of intersectional factors such as age, religion, marital status, ethnicity, location, culture and many more.

Objective and Research Question

It is against this challenging and multifaceted backdrop that this thesis investigates how women actively shape and transform agrifood systems and foodscapes in Sub-Saharan Africa and how spatial and social dynamics influence, and in some cases interfere with, women's participation in agrifood systems. I elaborate on the consequences of women's contribution in agriculture and their involvement in development interventions, focusing on the implications for food security and empowerment within the region. The main research question guiding the thesis is:

How do women shape and transform rural agrifood systems in Sub-Saharan Africa and what are the implications for food security and empowerment within the Sub-Saharan territorial context?

First and foremost, the hypothesis underpinning the analysis of the issue is that women's engagement in agrifood systems is a crucial driver for the achievement of both food security and empowerment, since "women have remained invisible as farmers in spite of their contribution to farming. People fail to see the work that women do in agriculture" (Shiva, 2009, p. 19) and moreover, their invisibility is intensified by contextual factors such as limited access to land and different cultural, community and religious structures.

To guide my reasoning during the analysis, the chapters of this thesis are structured around a set of sub-questions which further help discussing the identified main issues:

- What roles do women play in the production, transformation and distribution of food within rural agrifood systems, and how do their contributions influence household and community food security and nutritional outcomes?
- How do territorial, structural, cultural and spatial factors shape women's participation in local food environments and foodscapes, and how do these factors influence women's access to resources, land and decision-making within agrifood systems?
- In what ways can development interventions, such as the *Debo Bamtare* project, serve as examples of successful strategies to empower women and transform foodscapes in rural contexts?

Thesis Structure

The thesis is structured into six chapters, each one building upon the previous to elaborate and explore the complex dynamics around women's involvement in agriculture and the resulting impact on food security, gender equality and development interventions in Sub-Saharan Africa. In chapters 2, 3 and 4 I elaborate on a general overview of the Sub-Saharan region and women in agrifood systems with a solid and systematic literature review on gender, food security and territorial and spatial perspectives. Then, in Chapter 5 I bridge my analysis with the case study of the project *Debo Bamtare* in order to critically discuss the main reflections and insights in Chapter 6. In doing so, I seek to apply a thematic analysis to identify which are the key patterns of gendered participation in agrifood systems in Sub-Saharan Africa and the related spatial and foodscape dynamics (Braun & Clarke, 2006).

In Chapter 1 I frame and situate my research by providing some initial methodological and theoretical considerations. By inscribing my thesis in the domain of international cooperation, I stress the importance of employing a multidisciplinary approach to the themes of gender, food security and development to analyse the Sub-Saharan context. Moreover, I elaborate on the methodological approach of the thesis and the approach employed during my fieldwork experience in the villages of Aram and Kenene in the Saint-Louis region, Senegal for the *Debo Bamtare* project by the NGO APDAM (*A Proposito Di Altri Mondi*) in the context of my participation in the 2024/25 edition of the UNI.COO (UniTO for International Cooperation) mobility project promoted by the University of Turin.

In Chapter 2 I analyse the context of my research by elaborating on the issues of hunger, poverty and gender within the socio-spatial dynamics in Sub-Saharan Africa. Mapping hunger in the region is necessary for a thorough understanding of the critical role of agriculture and to assess how gender dynamics shape rural agrifood systems. It is in this perspective that I seek to understand the interconnections between the challenges of poverty, gender and hunger drawing on international development indicators and frameworks, notably the 2030 Agenda for Sustainable Development.

Chapter 3 presents the literature review and the theoretical framework of the research. First, I engage with key concepts as formulated by scholars from different disciplines to offer a theoretical grounding on food security, food sovereignty, right to food, foodscapes and food environment. Furthermore, to dissect how politics and power interact at different scales through a feminist political ecology lens (Elmhirst, 2015), I introduce the concept of women's empowerment (Kabeer, 2005) by integrating theories of space (Massey, 1994) and territoriality (Dematteis & Governa, 2005).

In Chapter 4 I delve into the multifaceted dimensions of women's roles in food environments by highlighting women's contributions and constraints to both household nutrition and child health. Moreover, the chapter elaborates on the structural barriers at multiple scales to provide a more complete picture of which are the elements at household, community, national and global level in agrifood systems interfering with women's full empowerment in rural environments.

Chapter 5 focuses on the case study of the *Debo Bamtare* project in the Saint-Louis region in the north of Senegal. This case study is central to the research as it demonstrates how women's involvement in agrifood systems through a gender-sensitive and territorially-aware

development planning and implementation has the potential to radically transform rural food environments, increasing food security and significantly decreasing child malnutrition. By first outlining the territorial context of Senegal, the overview of the project and the main actors involved, I then analyse and discuss the key outcomes of the project backed by qualitative data through the lens of the theoretical framework of the thesis.

Finally, in Chapter 6 I analyse the implications of women's contributions to agrifood systems for food security and empowerment in development interventions such as the *Debo Bamtare* project. Moreover, I elaborate on the possible future trajectories of development interventions and the related challenges and policy recommendations by analysing what did not work and what worked during attempts of integrating women in development in rural contexts in Sub-Saharan Africa.

CHAPTER 1 – Theoretical and Methodological Considerations

1.1 Framing the Research

The role of women in rural agrifood systems in Sub-Saharan Africa (SSA) is determined by a complex interplay of social, environmental and economic factors and its analysis requires a multidisciplinary and holistic perspective able to provide a clear understanding of the Sub-Saharan regional context. Such an analysis combines insights on gender, food security, development and agrifood systems. It is in this perspective that this thesis seeks to offer nuanced perspectives by framing the research within the field of international cooperation for development, with a particular focus on the role of women on rural agrifood systems in SSA.

By adopting a multidimensional perspective, I analyse the ways in which the role of rural women intersects with food security destinies in the region in the light of the persistent structural challenges, notably abject poverty, endemic hunger and mounting episodes of environmental hazards. To analyse the nature of these challenges, I refer to the 2030 Agenda for Sustainable Development framework, with a particular attention to SDG 5 (Gender Equality) and SDG 2 (Zero Hunger).

Given the international cooperation endeavours to guarantee the right to food to all populations, notably in the Sub-Saharan region, I situate my research among contemporary tendencies which aim at a more holistic view of subsistence strategies, local development and food systems in rural environments (Bignante *et al.*, 2024). Indeed, the multidimensional crises of our global system have made it clear that the issue of food cannot be resolved solely through technical solutions but instead requires changing “*le logiche generali che governano il cibo [...], accesso equo alle risorse a chi davvero lo produce*” (*ibid.*, p. 193).

The thesis is situated at the intersection of different disciplinary perspectives, notably geography, development, gender and food studies, to provide the tools to grasp the complex and multifaceted layers of understanding influencing women’s experiences in rural Sub-Saharan agrifood systems. First and foremost, in order to explore how gender and power dynamics influence food security outcomes in rural SSA, I integrate geographical approaches to international cooperation for development to dissect women’s experiences and practices, focusing on the case study of the *Debo Bamtare* project in Senegal.

Indeed, applying a geographical lens to this thesis helps to illuminate the ways in which it is the interdependence between flows, scales and places that creates a precondition for the deployment of cooperation activities, and it is precisely here that geographical knowledge is central to understanding these interconnections and their consequences (Bignante *et al.*, 2024). Thus, geography provides a spatial lens through which I dissect the role of space, territory and scale in development analysis.

Secondly, elaborating on the role of gender in agrifood dynamics is essential to “*concepire l’accesso a pari diritti e opportunità per ogni persona come elemento indissociabile dal concetto di sviluppo e imprescindibile per il suo raggiungimento*” (Mosca in Bignante *et al.*, 2024, p. 78). It is in this perspective that, through gender studies concepts, notably feminist political ecology lenses, I elaborate on the ways in which power operates and navigates across scales to influence the lived experiences of women in agrifood systems in rural SSA,

to ultimately shed light on how “*le relazioni di genere producono relazioni di potere che, a loro volta, determinano asimmetrie nell’accesso alle risorse materiali (terra, acqua, cibo, ecc.) e immateriali (istruzione, informazione, potere decisionale, ecc.) e al loro controllo*” (*ibid.*, p. 81).

It is true that the thesis engages with Sub-Saharan Africa as a regional context but it is essential to highlight the way in which the research does not consider the region as a homogeneous unit. Indeed, I try to bring to light the diversity of its environments and sociocultural configurations, through examples grounded in a vast literature review and the integration of my fieldwork experience in Senegal. In this regard, development studies concepts contribute to create a solid policy and approach base for the analysis of the case study of the project *Debo Bamtare* project in the villages of Aram and Kenene, in the north of Senegal.

By the same token, women too are not treated as a homogeneous unit and that is achieved through the multidisciplinary approach of the study that allows for a more relational understanding of women in agrifood systems and their role in development interventions. Throughout this research I always consider the heterogeneity and diversity of women, together with the problematic and controversial aspect of speaking of ‘women’ as a category, especially in the domain of development due to the complexity of the issue, the plurality of actors involved and the political, economic and sociocultural dynamics that characterises the places of intervention (Mosca in Bignante *et al.*, 2024).

The research is informed by my fieldwork experience in the villages of Aram and Kenene in the Saint-Louis region, Senegal, during the final evaluation phase of the *Debo Bamtare* project by the NGO APDAM (*A Proposito Di Altri Mondi*) in the context of my participation in the 2024/25 edition of the UNI.COO (UniTO for International Cooperation) mobility project promoted by the University of Turin. The *Debo Bamtare* project in the rural villages of Aram and Kenene, located in the commune of Madina Ndiathbé (Saint-Louis region, Senegal), aims to address rural food insecurity and child malnutrition through a gender-sensitive approach.

The project employs a three-pronged approach: firstly, access to agricultural activities; secondly, community education to reinforce and raise the awareness of good nutritional practices; and finally, the promotion of income-generating activities (IGAs). Thanks to these actions, the populations of the villages of Aram and Kenene, notably women, have benefited from training, new productive resources and economic opportunities. *Debo Bamtare's* evaluation shows a significant reduction in child malnutrition, increased household food security and an improvement in local nutritional practices. Technical and entrepreneurial training has led to an increase in agricultural production, facilitated local processing of products and the development of economic initiatives led by women.

1.2 Methodological Approach

This thesis adopts a qualitative methodological approach, combining analysis of relevant literature with field-based insights to explore women’s role and impact in rural agrifood systems in Sub-Saharan Africa. The research is rooted in a combination of academic literature related to women and agrifood systems in SSA and data constructed during my

fieldwork experience. Indeed, during my experience in the villages, I produced the final evaluation report of the project for the NGO APDAM based on the indicators of the logical framework in order to assess the effectiveness of the project. This document is used as the background for the case study's considerations of the thesis, instrumental to highlight the qualitative insights on the participation of women in the project *Debo Bamtare*. In order to adapt my fieldwork to the qualitative approach of the thesis, the data of the evaluation report are revisited and discussed to shed a light on the real and lived experiences of rural women and the impact of a specific development intervention to cast a light on the impact and potential of women's empowerment on the socioeconomic development of rural environments.

By applying the principle of triangulation, *i.e.*, comparing the results obtained from several data collection methods, in the case study I analyse the data constructed to gain thorough understandings around gender, agriculture and development for food security in SSA. The evaluation research carried in Senegal is pivotal for the case study of this thesis, as it allowed for a deeper analysis of socioeconomic dynamics in the villages of Aram and Kenene and how the role of women in agrifood systems was fostered by the project.

The qualitative data constructed during my fieldwork experience in Senegal for the final evaluation phase of the *Debo Bamtare* project is constituted of primary data, mainly insights informed by semi-structured interviews and questionnaires with women beneficiaries to evaluate the efficiency of the project. These data are the backbone of my thesis in that they provide interesting perspectives on the elements that are essential to understand the role of women in the project *Debo Bamtare*, by bringing to light rural women's contribution and potential in local agrifood systems. The objective of the fieldwork research was to find, capture and retrieve data to engage with events that could spark my curiosity, intrigue and provoke interesting insights for my thesis (Denzin & Lincoln, 2018).

Integrated into the framework of the thesis, this approach aims at providing direct qualitative insight into women's real-life experiences revealing the different ways of engaging with agrifood systems and shaping foodscapes and food environments (Rocheleau, 2023). Both primary data, *i.e.*, data constructed during the fieldwork experience, and secondary data *i.e.* data drawn from different sources such as academic literature and the *Debo Bamtare* project documents, are instrumental for this research in that, through this methodology, they bridge individual real-life and territorially-bound experiences with macrostructural and multiscale insights (Hesse-Biber & Griffin, 2016; Rocheleau, 2023).

1.2.1 Data Construction Tools and Methods

The fieldwork was conducted based on a review of the project documents available at the time of the research, such as the project documents (description and technical report), the logical framework, the report of the activities, the monitoring documents and the local health registries of Aram's health post. While the study of local health registers has made it possible to evaluate the state of health and nutrition of children 0-59 months, other field research activities have made it possible to determine the agricultural production, proportion of women targeted by the activities and the appropriation of the project by measuring the knowledge and skills acquired. Below is a detailed list of the research methods I employed to construct data during my fieldwork experience:

Semi-structured interview:

Thanks to the flexibility that this research method offers to the interviewer, the list of questions can be adapted and changed according to the answers of the interviewees. This method allowed the creation of moments of dialogue and exchange with the women of Aram and Kenene to better understand the effectiveness of the activities implemented by the project in the villages and their role.

Collective oral evaluation:

The collective oral assessment tests certified the learning of the skills acquired during the training activities. A collective oral test was carried out among the 25 women who followed the two training courses on the processing of agricultural products and agricultural and poultry techniques.

Questionnaire:

The method of individual evaluation through a closed-question questionnaire was chosen to certify the learning of the skills acquired during the training on management tools. Indeed, given the small number of participants in the training and the difficulty of bringing them together at the same time and place, this method was considered as the most appropriate.

1.2.2 Sampling

Participants are selected based on convenience sampling, a non-probabilistic method based on the accessibility of people. Although this method does not guarantee statistical representativeness, it is adapted to the constraints (*i.e.*, time, resources, accessibility) of the field (Etikan *et al.*, 2015). However, the sample includes women from both Aram and Kenene, in order to obtain global data reflecting the two local contexts. Participants are selected based on their accessibility and availability to participate in the research. Listed below are the inclusion criteria for each search mode:

Semi-structured interviews:

- Preferably women 18-49 years old
- If mothers, preferably with children 0-59 months
- Participation in community education activities

Collective oral evaluation:

- Participation in training on poultry and agricultural techniques
- Participation in training on agricultural processing
- Preferably different representations of working age (18-65 years old)

Questionnaire:

- Participation in training on management instruments
- Preferably different representations of women of working age (18-65 years old)

1.2.3 Research Times

The research took place in the context of the UNI.COO mobility project in Senegal, and it consisted of three phases:

In the first phase (February-March 2025) a meticulous preliminary study of the project materials was carried out prior to the fieldwork research to ensure the in-depth understanding of the local context, the intervention in the villages and the expected outcomes of the project. Thanks to the evaluation of the project carried out in September 2024, it was possible to identify the needs of the research in advance and to develop the research protocol specifying the sessions to be carried out, the questions to be asked and the data to be constructed as well as the methodology to be followed.

In the second phase (April 2025) the research was carried out in the villages of Aram and Kenene in the municipality of Madina Ndiathbé, Podor Department, Saint-Louis region, Senegal. The field presence allowed for the construction of data together with an introduction to the local context of the villages of Kenene and Aram. Meeting the inhabitants of the villages and the authorities was essential for an appropriate and respectful beginning of the research activities with the participants.

In the third phase (April-May 2025) after the fieldwork research period, the constructed data was first organised, catalogued, revised and analysed according to the research question. The analysis of the data resulted in the drafting of the final evaluation report of the *Debo Bamtare* project.

1.2.4 Research Limitations

The research is influenced by different limitations that are nevertheless mitigated by the communities' trust in APDAM, the expertise of the APDAM team and the excellent relationship that the NGO has maintained with the local population throughout the duration of the project. The main limits of the research that I identified during my experience are three.

First, the differences between the Pulaar-French linguistic and semantic systems. The impossibility of spontaneously interacting with the participants in a common language almost always required the use of a translation between Pulaar and French. This linguistic mediation, while essential, can introduce interpretive biases and affect the perceived neutrality of those involved in data construction.

Secondly, my incomplete knowledge of the territory and the local sociocultural context, which may have sometimes limited the optimal understanding of certain field dynamics. This level of unfamiliarity may have influenced the inaccurate estimations of the resources needed (*i.e.*, time, logistics, interactions), nevertheless provided me the opportunity to gradually strengthen my ability to adapt to local realities.

Lastly, research times, which are necessarily limited, depend above all on the availability that people agree to give to research activities. In a rural context such as Aram and Kenene where agricultural activities are central to daily life, it was not always possible to mobilise all participants at a time and place when it would have been ideal for the research. This may have limited the possibility of a fully in-depth understanding of the territorial, cultural and

socioeconomic context. Nevertheless, adapting methods to the realities on the ground were implemented to guarantee the success of the research activities.

1.2.5 Ethical Considerations

First and foremost, it is necessary to emphasise that the data construction was only carried out with the participants who agreed to take part in the research. After explaining the reasons and objectives of the research, oral consent was requested in order to be able to guarantee the transparency of the research. Secondly, participants who wished to maintain anonymity could access this option. Each research activity was introduced by a preamble of presentation and oral consent. Finally, since the research was carried out with an adult population, the age range taken into consideration was 18-49 years instead of 15-49 for women of childbearing age and 18-65 for working age, although the project activities also reached young people aged 15-18.

1.3 Expected Contributions

The growing recognition in literature and development interventions regarding women's pivotal role in rural agrifood systems for achieving food security, reducing poverty and malnutrition rates is undebatable. Gender studies and development literature have been documenting for decades women's critical contribution to food systems and the related challenges. I posit that a spatial and territorial analysis of women's roles in agrifood systems in Sub-Saharan Africa with a feminist political ecologist lens can provide a deeper insight to understanding how place, space and gender influence agrifood production, transformation and distribution. Furthermore, concepts of food environments and foodscapes have been predominantly applied in food discourse in the urban *milieu* or in the Global North with a limited application to rural Sub-Saharan Africa.

I argue that applying this approach to these territorial contexts where cultural, economic and environmental conditions –now exacerbated by the mounting climatic crisis– are utterly different, could enrich spatial discourses of women's empowerment and structural barriers within agrifood systems. While it is true that development projects aim to empower women and help them tap into their full potential, it is also true that the multiscalar politics of empowerment and the territorial structural obstacles of gender equality remain a complex and nuanced issue to analyse, especially through feminist concepts and geography.

Lastly, beyond the academic contribution, the integrated framework combining territorial analysis, food theories and feminist perspectives could be instrumental for future development interventions similar to the *Debo Bamtare* project as it underpins and offers a solid argument grounded in academic literature, which is able to inform the future design, implementation and evaluation of development project interventions. In the face of climate and socioeconomic challenges, understanding the Sub-Saharan context and its specific constraints to development can support development actors committed to local rural development, gender equality and food security in the region.

CHAPTER 2 – Mapping Intersections: Hunger, Poverty, Agrifood Systems and Gender Dynamics in Sub-Saharan Africa

Introduction

Despite its abundant natural resources, its fertile lands that stretch across 49 countries south of the Sahara Desert, a youthful population and centuries of rich history and culture, Sub-Saharan Africa (SSA) continues to deal with the endemic issues of hunger and food insecurity. The region seems to truly be cursed by the paradox of plenty. Full and rich agricultural potential coexists with chronic hunger which raises serious and pressing questions regarding political, economic, environmental and structural challenges that interfere with the region's development (Bjornlund *et al.*, 2022). The African proverb said it best: *“even the best cooking pot will not produce food”*. Potential alone is not enough if it is not coupled with sustained effort and the necessary resources.

This chapter begins with a process of mapping, both in the literal and metaphorical sense. The aim is not only to bring spatial awareness to the challenges of the Sub-Saharan region, but to also hold a magnifying glass to the Sub-Saharan context and ask the questions around what and who shapes its agrifood systems. Going beyond geography, this mapping investigates the intersections of the social and structural dimensions of hunger, poverty, agriculture and gender dynamics in SSA. It brings to light where and why scarcity originates, who are the most vulnerable in the region and the way in which this vulnerability is addressed by the global community and finally, what dynamics lie behind agrifood systems in SSA.

2.1 Too Many Mouths to Feed, too Few Meals to Nourish

The Sub-Saharan region, as much as much of the rest of the continent, is faced with multi-faceted problems of food insecurity arising from a series of structural impediments such as decaying infrastructural facilities, corruption, prolonged neglect and rising youth unemployment occasioned by bad governance and inadequate planning (Oluwatayo & Ojo, 2016). Moreover, with a population exceeding 1.2 billion (The World Bank Group, 2025), the region is facing an extraordinary rapid demographic growth, which ultimately results into further pressure on food systems already put under strain due to socioeconomic constraints, political challenges, and, now more than ever, climate change.



Fig. 2.1. Sub-Saharan Africa map. (Source:Pew Research Center, 2010).

It is estimated that SSA will continue to hold the record of the first region of the world with the highest rate of population growth, contributing more than 50% to the increase in global population between 2025 and 2050, representing around 23% of the global population. Such massive and sustained population growth mainly stems from the high fertility rate of the region and the extreme slowness of its reduction (Galizzi, 2017).

It is worth highlighting that this growth continues to be reinforced by population growth inertia which means that, even if fertility rates decline, SSA's young population will guarantee further population growth for decades after the decline of fertility rate due to their future reproductive potential (Koons *et al.*, 2006). Despite the reduction in fertility rates—which is still slow and uneven—, of the 21 countries in the world in which a woman has on average five or more children, 19 of these are located in SSA. The reasons underlying the demographic transition towards a reduced fertility rate are to be found in the increased opportunities for women to access to contraception, improved female education and knowledge about family planning (Bado *et al.*, 2022).

In this regard, Bado *et al.* (2022) argue that many Sub-Saharan countries such as Rwanda and Ethiopia are achieving significant progress in pursuing strategies to tap into the potential of the demographic dividend. The demographic dividend is the “economic growth potential that can result from shifts in a population’s age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share (14 and younger, and 65 and older)” (UNFPA, 2016). An increasing number of Sub-Saharan countries are investing in younger generations by improving education and reproductive health services with the aim of reducing fertility rates while simultaneously increasing the demographic share of the working-age population compared to dependent.

Galizzi (2017) claims that there are “some 20 million young men and women ready to enter the labour market each year” (p. 69) and this number is expected to grow in the coming years. Local governments are developing innovative ways to facilitate youth participation in the labour market in economic sectors with low-attractivity such as agriculture, which not only has a critical role for guaranteeing food security, but also has the potential to reduce poverty for the population (OECD-FAO, 2016).

However, before being able to reap the benefits of the demographic dividend, Sub-Saharan countries have to face the issue of an elevated youth dependency ratio. Youth dependency ratio refers to “the number of individuals aged 0-14 relative to the working-age population aged 15-64, expressed per 100 working-age individuals” (Pirani, 2014). Currently, SSA is the region with the highest youth dependency ratio in the world. This means that there exists a critical demographic burden on the working-age population, who must economically support the younger population.

At the same time, SSA also holds the unfortunate record of being “the world region with the highest and most concerning hunger levels” in which “hunger remains *serious* and progress has virtually stalled since 2016” (GHI, 2024, emphasis in text, p. 15). These data are based on the Global Hunger Index (GHI), an indicator designed to comprehensively measure hunger based on malnutrition at the national and regional level. Malnutrition refers to all forms of poor nutrition, from undernutrition to overnutrition. Undernutrition is a consequence of malnutrition and it is characterised by the conditions of stunting, wasting, underweight and micronutrient deficiencies (WHO, 2021). To assess GHI rates, four dimensions are taken into consideration: child mortality, child wasting (low weight for height), child stunting (low height for age) and undernourishment. The resulting scores are categorised as low, moderate, serious, alarming or extremely alarming (Welthungerhilfe, Concern Worldwide and IFHV, 2024). Sub-Saharan countries consistently rank among the most affected due to the general situation of food insecurity, *i.e.*, the lack of access to enough safe and nutritious food for normal growth, development and an active and healthy life (WFP, 2025).

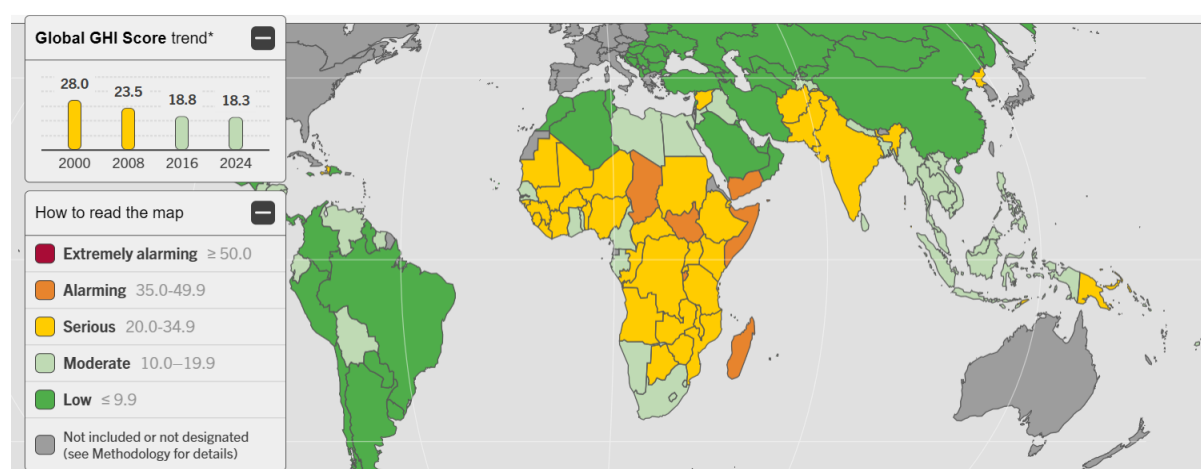


Fig. 2.2. GHI rates in SSA. (Source: Global Hunger Index, 2024).

It is in this context that a set of compelling questions naturally arise. First, how is SSA home to 25% of the world’s arable land but only produces 10% of global agricultural output (Oluwatayo & Ojo, 2016)? And why does SSA, home to massive untapped agricultural potential and a youthful population to employ in the sector, come to sadly top the global charts for poverty, child mortality and undernutrition, with 264 million people facing hunger and 24,1% of undernourished people (Action Against Hunger, 2025)?

Against such a backdrop of endemic food insecurity in Sub-Saharan Africa, the question no longer is whether it can be afforded to invest in fragile regions to fight the scourge of hunger, but whether we it can be afforded *not* to invest (World Food Programme, 2025, emphasis added).

As I will further elaborate on later, SSA's chronic hunger is not merely a result of insufficient food production. The world now produces enough food to feed its population which means that the problem of hunger is not simply technical. It is a political and social problem. It is a problem of access to food supplies, of distribution, entitlement and above all, it is a problem of political will (Boutros-Ghali, 1993).

In less than 40 years, the world has cut the proportion of hungry in half, from 37% in 1969 to 17% in 2002. Significant progress has been reported by African countries, among them Ghana, Malawi, South Africa, Botswana, Tanzania, Mali and beyond, in reducing hunger and malnutrition and increasing agricultural production (Sheeran, 2008). However, despite the slow but steady progress registered in the last two decades, currently one in five people in SSA are undernourished (Action Against Hunger, 2025) and 256 million Sub-Saharan Africans live in households with at least one undernourished person (UNDP & OPHI, 2024). Moreover, the slow progress towards food security is continuously stunted by low productivity agricultural resources, high population growth rates —about 2,7% *p.a.*— , political instability, civil strife and weather hazards (OECD-FAO, 2016).

2.2 From Scarcity to Sustainability: SDGs Challenges in Sub-Saharan Africa

What makes hunger and poverty such stubborn issues in SSA? As it is already clear through the previous overview of the region, the matter is far from having a simple answer. The region's persistent challenges of hunger, poverty, gender inequality, fragile health and education infrastructures and climate change have been a pressing preoccupation of the global development community, which has been cooperating for decades to tackle the structural impediments that stall progress in SSA.

2.2.1 The 2030 Sustainable Development Agenda: Leave No One Behind

The global development efforts, now encapsulated by the 2030 Agenda for Sustainable Development (UN, 2015), trace the path from scarcity to sustainability, acknowledging that this scarcity —not only of food, but also equality, opportunities and access— is far more challenging and demanding than simply setting ambitious targets. It is a path that aims at transforming the systemic forces at play that contribute to the many forms of deprivation disproportionately affecting the most vulnerable groups. The 2030 Agenda for Sustainable Development, adopted by UN Member States in 2015, “provides a shared blueprint for peace and prosperity for people and the planet, now and into the future” (UN, 2015). This “shared blueprint” consists of 17 Sustainable Development Goals (SDGs) and 179 targets addressing the deepest issues of our time such as poverty (SDG 1), hunger (SDG 2), lack of access to quality education (SDG 4) and to clean water (SDG 6), gender inequality (SDG 5), climate change (SDG 13) and many more.

The Preamble of the Agenda explicitly states that “the tyranny of poverty,” in all its forms and dimensions, “is the greatest global challenge and an indispensable requirement for sustainable development” in which no one shall be left behind (UN, 2015, p. 3). Poverty has been at the centre of the global community's discourse given that it is the main structural barrier to the achievement of food security, health, gender equality and all the other fundamental aspects of human life.



Fig. 2.3. Full list of the SDGs. (Source: UN, 2015).

2.2.2 The Millennium Development Goals: Aspirations, Gaps and Missed Targets

The endeavour of creating a global agenda for development is not new nor recent. The new millennium began with a development agenda aimed at mobilising the global efforts to fight poverty, hunger, disease—notably HIV/AIDS and tuberculosis—and the many other forms of inequality and deprivation through measurable goals and targets. “Eradicate extreme poverty and hunger” was the first of the eight global targets of the Millennium Development Goals (MDGs) adopted by UN Member States in 2000 with the ambitious objective of ending poverty by 2015 (UN, 2000).

Despite the fact that many of the MDGs were not achieved by 2015, significant progress has been recorded over the 2000-2015 period (MDG Monitor, n.d.; UNDP, 2015). For example, the proportion of people living in extreme poverty—living on less than 1.25\$/day—fell from 36% in 1990 to 15% in 2011, meeting the MDG target of halving the proportion of people living on a daily income of 1.25\$ (UN, 2015). In Asia, countries such as China and India registered important reductions in poverty. In Latin America and the Caribbean hunger and child malnutrition rates decreased, with undernourishment rates falling from 14.7% in 1990-1992 to 5.6% in 2014-16 (FAO, IFAD, WFP, 2015).

Even if SSA registered some improvement, the region still continued to lag behind. The global community began to predict SSA’s difficulty in achieving the MDGs already a couple of years after the MDGs’ implementation: “Sub-Saharan Africa, most dramatically, has been in a downward spiral of AIDS, resurgent malaria, falling food output per person, deteriorating shelter conditions, and environmental degradation, so that most countries in the region are on a trajectory to miss most or all of the Goals” (UN Millennium Project, 2005, p. 2).

Every developing region reached the MDG of halving poverty by 2015, except Africa (Beegle *et al.*, 2016). By 2015, over 40% of the region’s population still lived with less than 1.25\$/day and the absolute number of people living in extreme poverty did not decrease as in other

regions of the world but instead it increased. As a matter of fact, the fall in poverty from 56% in 1990 to 43% in 2012 has been offset by the rapid population growth which ultimately resulted in an increase in the absolute number of poor people (Beegle *et al.*, 2016; Akolgo, 2018).

So, what went wrong in SSA with the MDGs? Many scholars tried to dissect the reasons for the MDGs' limited success in reducing poverty in SSA. Easterly (2009) posits that the Millennium Agenda was structured around a series of choices made during the drafting of the goals which defines success and failure. These targets were mainly based on the achievement of quantitative targets which made it statistically more difficult for Africa as a whole to succeed due to its structural impediments, thus generating a portrayal of African development efforts as failures despite the considerable —yet not sufficient— progress. Akolgo (2018) and Obeng-Odoom (2013) argue that the MDGs' inability to reduce poverty in the region stemmed from a fragile institutional capacity and numerous conceptual and methodological inconsistencies between the global development perspective and the specific territorial contexts. This lack of coordination between ambitious global targets and local realities led to misaligned strategies and poorly planned interventions which ignored the complexity of local poverty. For example, the focus on GDP growth to reduce domestic poverty rates proved ineffective to capture national spatial inequalities, especially in rural contexts where the majority of the poverty is concentrated.

The sustained ambition of the MDGs agenda was renewed and reflected in the launch of the 2030 Sustainable Development Agenda in which poverty remains the most critical challenge. Once again, the goal at the forefront of this new development agenda is: "End poverty in all its forms everywhere" (UN, 2015), therefore acknowledging that "the business of ending poverty is 'unfinished' " (Akolgo, 2018, p. 3).

2.2.3 How the "Tyranny of Poverty" Dictates in SSA

How is poverty defined across development frameworks? The concept of poverty has undergone a variety of shifts in meaning in the last decades. As mentioned earlier, in the MDGs poverty was determined through an economic and monetary perspective: extreme poverty was defined as the phenomenon affecting those living on less than 1.25\$ per day (UN, 2000). Given this narrow and incomplete definition focused on household income, when the SDGs superseded the MDGs in 2015, poverty was redefined in correlation to its multidimensional characteristics, recognising its influence on deprivation, access to resources and basic services (UN, 2015). Target 1.1 of SDG 1 "No Poverty" states the objective of eradicating "extreme poverty for all people everywhere, *currently* measured as people living on less than \$1.25 a day" (*ibid.*, emphasis added). The target does indeed acknowledge the current existence of an international threshold for poverty, but the "currently" signals that it may be susceptible to further changes as economic metrics and conditions evolve. Furthermore, as target 1.2 indicates, the reduction of poverty needs to be context-sensitive when addressed "in all its dimensions according to *national* definitions" (*ibidem*, emphasis added).

For SSA, SDGs are not just bold and abstract targets. They are the reflection of a pressing urge to address the region's challenges to tackle poverty and all the resulting issues. Poverty is multidimensional, especially in SSA's rural areas, where social services, such as health and educational and productive infrastructures are weak (Galizzi, 2017). It intersects with the agriculture sector, education access, gender inequality and vulnerability to adverse climatic

events. This multidimensionality of the phenomenon is captured in the Multidimensional Poverty Index (MPI) developed by Alkire and Foster (2011), a measure capable of overcoming the traditional income and monetary poverty measures. This alternative focuses on three fundamental dimensions: health, education and living standards. An individual is therefore described as multidimensionally poor if they experience simultaneous, compounding and overlapping deprivations, e.g., inadequate housing, undernutrition and lack of schooling. This approach is particularly relevant in SSA, due to its ability to measure both the incidence and the intensity of poverty in contexts with deep structural inequalities often ignored through income metrics (Alkire & Foster, 2011).

According to the latest Global MPI Report (2024), SSA is home to 553 million multidimensionally poor people. SSA registers the highest value of MPI, due to low scoring on years of schooling and attendance, lack of adequate housing and electricity, poor sanitation and drinking water and undernutrition. Furthermore, out of the five countries in the world with the largest population of people living in poverty, three are Sub-Saharan countries: Nigeria, Ethiopia and Democratic Republic of Congo. The lion's share of these poor populations live in rural contexts (UNDP & OPHI, 2024).

SSA's reliance on subsistence farming as the main source of livelihood of rural populations makes alleviation of poverty not an isolated challenge, but the focal objective through which all the other 16 SDGs can be achieved. SDG 2 "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" (UN, 2015) is a poverty-related challenge in SSA's poor rural contexts in which undernutrition is one the most common deprivations of the multidimensionally poor, disproportionately affecting women and children (UNDP & OPHI, 2024). Poverty cannot be alleviated if food insecurity remains a constant in the region and conversely, food insecurity cannot be addressed with a long-term and sustainable action in contexts of persistent poverty. In SSA this bidirectional relationship disastrously stalls development: poverty and hunger are deeply interwoven and mutually reinforce one another, leaving the most vulnerable stuck in extreme deprivation (Akinbode *et al.*, 2022).

SDG 5 "Achieve gender equality and empower all women and girls" reflects another critical reality of poverty. Poverty is highly gendered, especially in SSA, where women face the paradox of being the backbone of agrifood systems while simultaneously being the most affected by poverty and food insecurity (Hendricks, 2002). The systemic barriers related to land ownership, credit, education and decision-making exacerbate poverty and limit the benefits of poverty-alleviating development interventions.

SDGs 2 and 5 are central for this research as they are at the centre of the action strategy of the case study on the *Debo Bamtare* project. Hunger and gender inequality are part of the structural pillars of the extreme poverty rates in SSA. However, it is not difficult to argue a valid case for how virtually all 17 SDGs are directly connected to SSA's poverty and hunger challenges. For instance:

- SDG 3 "Ensure healthy lives and promote well-being for all at all ages" intersects with rural poverty and hunger, reflecting the limited access to healthcare service and to essential medicines, despite the high rates of malnutrition and disease. The current situation of weak healthcare infrastructures with fragmented coverage and the lack of a comprehensive national health service fails to address SSA's health problems (Otim *et al.*, 2020).

- SDG 4 “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” is jeopardised by the elevated school dropout rates in the region, especially of young girls, due to household poverty. Moreover, hungry children struggle with concentration at school, and may miss or drop out of school to work or to care for family members.
- SDG 6 “Ensure availability and sustainable management of water and sanitation for all” reflects the need for improved infrastructures for the provision of clean water. Water scarcity, exacerbated by climatic conditions, is extremely common in SSA. Lack of access to water not only affects nutrition, in that contaminated water leads to unsafe food preparation and inadequate absorption of nutrients, but it also negatively impacts sanitation and hygiene, leading to diseases.
- SDG 13 “Take urgent action to combat climate change and its impacts” underpins the dire need to create resilient livelihoods and agrifood systems to face climate shocks affecting rural income and food security (Wudil *et al.*, 2022).

In the current world, increasingly characterised by multiple and intersecting severe crisis, —such as climate change, post-Covid19 recovery, armed conflict in various regions and political and economic instability— the SDGs are to be understood as a blueprint for synergic efforts towards resilience and equity for all regions, not only the developing ones. For SSA specifically, the current polycrisis demands more coordinated and systemic responses (Liu & Renn, 2025) to address the challenges of multidimensional poverty, food insecurity, gender inequality and climate change. These issues are inseparable and must be understood by acknowledging their nature as “wicked problems”, *i.e.*, complex, interdependent issues which cannot be resolved with linear solutions (Rittel & Webber, 1973; Lönngren & van Poeck, 2020). The success or failure of the SDGs in SSA is not just a regional concern, as the interconnected nature of its goals means that progress or setbacks in SSA will inevitably ripple through other regions in the world.

2.3 The Role of Agriculture in SSA

Agriculture remains the main source of livelihood for most Africans, especially those living in the rural areas and it is the economic nerve centre of many Sub-Saharan countries. Agriculture is an economic sector that provides a substantial contribution to the African economy in terms of labour employment and share of GDP (Oluwatayo & Ojo, 2016). The pivotal role of the agricultural sector in contributing to food security is widely acknowledged and it is reflected in its prioritisation in the economic development agendas of Sub-Saharan countries (OECD-FAO, 2016).

“Most of the world’s poor and hungry are rural people who earn meagre livings from agriculture” (FAO, 2016, p. 46) and this is certainly also true for SSA. There exists a direct link between rural agriculture and poverty in the region, in that, as Galizzi (2017) states, poverty in SSA is predominantly a rural phenomenon and, despite the growing urbanisation registered in the last years, 74% of the population lives in rural areas and agriculture represents their main livelihood. Despite the growing rate of urbanisation in the region, “even in urban areas agriculture still represents the primary livelihood for up to 25% of the population” (OECD-FAO, 2016, p. 71).

It is against this background that subsistence farming stands out as the most prevalent agricultural model in the region. Subsistence farming, also referred to as smallholder agriculture, agricultural self-sufficiency or survival farming, is a mode of agricultural production based on small-scale cultivation and livestock rearing, destined primarily to household consumption. A subsistence farm usually covers a small plot of land and employs traditional techniques and family labour (FAO, 2016; Agristuff, 2025). It is worth reminding that subsistence farming is not a synonym of family farming, given that even if the former does imply a family dimension to it, the latter does not necessarily only produce subsistence. In other words, a subsistence farm can also be a family farm, but a family farm is not necessarily a subsistence farm, as it can produce for commercial purposes (Châtel *et al.*, 2014). Therefore, what characterises subsistence farming is the non-market orientation and the primary focus on household food security and not profit. With that being said, it is true that subsistence farmers may sell or trade agricultural surplus to generate additional income (Giller *et al.*, 2021; Agristuff, 2025).

Understanding the role and complexity of this mode of agricultural production in SSA is crucial to mapping agrifood dynamics in SSA. However, it is also of fundamental importance to stress that SSA is not a homogeneous region, as its 49 countries differ significantly in terms of geography, climatic zones, colonial legacies, institutional and governance structures and agricultural systems. Indeed, agriculture accounts on average for 15% of the total GDP of the region but, on the one hand, in Senegal for example, agriculture accounts for 16% of the GDP of the country and it employs 30% of the working-age population (U.S. International Trade Administration, 2023), on the other hand, in Botswana agriculture contributes to below 3% of the GDP while in Chad the agricultural sector accounts for more than 50% to its GDP (OECD-FAO, 2016).

The evident regional differences and the varying importance of the agricultural sector across SSA reflect agro-ecological and cultural diversity, which results in diversity in crop production. The OECD-FAO Agricultural Outlook (2016) highlights how maize stands out as the single most important staple crop across all sub-regions of SSA. However, staple crop preferences vary significantly by region. Western Africa, for example, accounting for more than 60% of the total value of agricultural output in SSA, is an important producer of rice and cassava, together with Eastern Africa, in which other fundamental staple crops are sweet potatoes, potatoes and plantains.

2.3.1 Unpacking Sub-Saharan Agricultural Challenges

Despite the many differences across Sub-Saharan countries, numerous common and relevant generalisations can be drawn to gain a thorough understanding of the role and the challenges of agriculture stunting development and food security in the region.

First and foremost, SSA faces complex constraints on sufficient food production, resulting in inadequate response to domestic requirements. Bjornlund (2022) argues that the persistent and increasing food insecurity in SSA despite the region being a net agricultural exporter stems from the colonial legacy of export-oriented agricultural production which met the needs of industries and consumers in the Global North. After the independence of African countries, agricultural policies remained focused on exports and neglected integrating food production systems into the domestic economy. This resulted in agriculture being a low-productivity sector in SSA, often not permitting the production of sufficient food to meet household nutritional needs (African Development Bank, 2022).

Moreover, agrifood systems in SSA also face numerous constraints to access to new agricultural technologies that could tremendously improve productivity gains. Constraints such as credit limitations, risk aversion and knowledge gaps hinder the adoption and the diffusion of innovations concerning improved seeds, fertilisers and innovative irrigation systems (Suri & Udry, 2022). Production techniques are still primitive, which further contributes to the lowest agricultural productivity in the world (Galizzi, 2017). According to former UN Secretary-General and Nobel Peace Prize laureate Kofi Annan: "the unacceptable reality is that too many African farmers still use methods handed from generation to generation, working their lands or grazing their animals much as their ancestors have done for millennia" (Africa Progress Panel, 2014, p. 11).

This reliance on traditional practices hinders the adoption of modern inputs and technologies which could significantly increase agricultural productivity. For example, Sury and Udry (2022) highlight how fertiliser and irrigation are two key agricultural technologies. They posit that "these inputs have the property of reducing heterogeneity in characteristics of land: for example, irrigation projects, to some extent, level out natural differences in supply of water to farmland" (p. 38) and protect agricultural activities in cases of erratic rainfall. Fertiliser use in SSA is critically low compared to global standards and there exists a dire need for more efficient conservation and harvesting systems, together with crop varieties resistant to drought and diseases to close the yield gap (Ongoma *et al.*, 2025). The impacts of environmental hazards wreaking havoc in SSA call for strategies aimed at enhancing rural agrifood systems in vulnerable communities, *i.e.*, *"le persone più esposte alle perturbazioni, che possiedono una limitata capacità e che sono meno resilienti al ripristino della situazione iniziale"* (Pellizzoli & Rossetti, 2013, p. 211). For instance, evidence from the literature shows that the adoption of climate-smart agriculture (CSA) technologies could represent a valuable ally against mounting environmental hazards threatening Sub-Saharan food security, if only supported by responsive policy, appropriate financing and adequate understanding of environmental, economic and social challenges of the region (Partey *et al.*, 2018).

The high poverty levels in the region are one of the numerous factors underlying the region's low productivity. Low productivity and hunger feed each other in a vicious cycle that results in negative ripple effects for both adults and children. The latter face malnutrition, which increases the risks of falling sick, undermines development abilities to learn and reduces performance at school and, later in life, productivity at work. As noted, most of SSA's agriculture is trapped in a vicious cycle of low productivity, underemployment, hunger, malnourishment and environmental stress (Galizzi, 2017). To try to escape this vicious cycle, agriculture has been at the centre of domestic policies aimed at investing into the "huge untapped supply of productive agricultural capacity" (*ibid.*, p. 76) and to counter the increasing number of the chronically hungry in the region. To deal with the endemic food insecurity crisis, SSA is gradually becoming a net importer of agricultural products, importing food commodities such as wheat, rice and poultry, due to the stunted and inadequate production growth that has failed to keep pace with domestic demand (OECD-FAO, 2016).

Despite the low productivity of the sector, the investment of local governments and new foreign actors validates the assertion that the region does indeed have a productive agricultural potential of enormous interest, with a climatic and biophysical potential to grow crops and to meet its growing food demand (Galizzi, 2017; Ongoma *et al.*, 2025). As highlighted by Kofi Annan, "the world's burgeoning population needs to be fed and Africa, our continent, is well positioned to do so. We have enough resources to feed not just

ourselves but other regions too. We must seize this opportunity now” (Africa Progress Panel, 2014, p. 11).

Unfortunately, it is also in this perspective of *seizing the opportunity* that local populations in SSA are “losing their land to exogenous investors through the contentious process of large-scale land acquisitions (LSLAs)” (Fonjong, 2016, p. 50). Commonly referred to as land grabbing, LSLAs are “land transactions involving 200 hectares or more, typically for agricultural conservation, or resource extraction purposes, often conducted by foreign or elite domestic investors” (Montilla Fernández, 2017). In the face of land grabbing activities, local populations are currently confronted with the necessity of finding new sources of energy and food security previously ensured by local land now taken over by foreign companies of the Global North and Gulf States, governments and the restricted local agrifood industry elite (Fonjong, 2016).

As Hall (2011) highlights, land grabbing activities in SSA have intensified throughout the last years and it is difficult to capture the range of actual experiences, given that land grabbing is not only about land being dispossessed and acquired. The phenomenon encompasses a wider spectrum of activities and consequences, affecting lives, livelihoods, water and energy provisions and cheap labour. The minimal transparency of the investors and the lack of consent of the community inevitably disadvantages “women, who are socially and economically the most disempowered” (Fonjong, 2016, p. 59) and the most vulnerable to food insecurity, while simultaneously and paradoxically being responsible for reconfiguration of domestic survival strategies. LSLAs often lead to displacement of local populations and, as a result, food is displaced, together with women's knowledge and work, skills, productivity, and creativity related to food (Shiva, 2009).

Secondly, another generalisation about SSA can be drawn regarding the consequences of the current environmental crisis. This situation had already been anticipated by the global community at the beginning of the millennium: “climate change could worsen the situation by increasing food insecurity, spreading vector-borne diseases, and increasing the likelihood of natural disasters; a prolonged decline in rainfall in parts of Africa has already wreaked havoc” (UN Millennium Project, 2005, p. 2). SSA is one of the most vulnerable regions to the risks of climate change, ranging from a decrease in rainfall, increasing desertification, droughts, floods and other hydro-meteorological events, despite the region's minimal contribution to the climatic crisis (Chhibber & Laajaj, 2007). As Galizzi (2017) notes, “this region of Africa now bears a major part of the cost of the impact of global warming caused by the past decisions regarding economic development of other countries” (p. 82).

Climate change exacerbates the economic, health and environmental landscape of the region (Oluwatayo & Ojo, 2016). According to the latest Global Hunger Index Report (2024), climate change has reduced agricultural productivity growth in the region by 34% since 1961. The frequent incidents of severe drought in countries such as Zimbabwe, Zambia and Malawi result in negative impacts for the population, which relies mainly on rainfed subsistence crops and drought-sensitive water sources. The occurrence of a strong El Niño episode in 2015 resulted in unusual dry conditions across Eastern and Southern Africa, exposing the severe vulnerability of the regions' predominantly rainfed agricultural systems. Over the past decade, it is estimated that such adverse weather events have contributed to a 10% decline in cereal output, therefore validating the urgent need for more climate-resilient agricultural strategies (OECD-FAO, 2016) to ensure food security. Western Africa too is

facing environmental stress and numerous policies and projects have been implemented to attenuate the effects of climate change. Senegal, for example, in order to respond to the increasing drought in the Sahelian region, has put into effect large-scale hydroelectric schemes in the Delta of the River Senegal (Garambois *et al.*, 2018).

For Sub-Saharan agriculture, climate change acts as a threat multiplier (Hopkins, 2013) as many agricultural lands still rely solely on rainfall for the irrigation system and exposure to weather hazards in fragile zones (Oluwatayo & Ojo, 2016), especially the rural ones, increases and inevitably compounds pre-existing vulnerabilities such as food insecurity, poverty and gender inequality. “While vulnerability is seen as a *passive* condition that results from people’s sensitivity and exposure to shocks and their lack of capacity that prevents them from managing diverse events, resilience is the *active* ability to develop and implement strategies/responses in an attempt to counter these vulnerability conditions” (Béné *et al.*, 2016, emphasis in text, p. 125). The limited resilience of vulnerable populations in SSA results in the impossibility of recovering from adverse shocks such as droughts, crop failure, heatwaves, floods and livestock losses (FAO, 2016). In other words, such populations lack the adaptive capacity necessary to change, adapt and adjust in order to continue functioning in response to a shock (Béné *et al.*, 2016). According to Garambois *et al.* (2018), to ensure the continued functioning of an agrifood system, *i.e.*, its resilience, means to ensure “*la capacité des ménages agricoles qui le composent à préserver les équilibres suffisants (autoconsommation incluse) pour assurer leur survie et la formation d’un surplus nécessaire à la pérennité de leur unité de production (à sa reproduction), ainsi qu’à la satisfaction d’autres groups sociaux*” (p. 112).

Lastly, a general situation in SSA concerns its gendered dimension in the agricultural sector. Indeed, agriculture in the region employs more than half of the total labour force and it is the main source of livelihood for the rural population. The majority of such labour force is made up of women. From seed selection and crop cultivation to food transformation and meal preparation, women are the main actors of African agrifood systems. Each of these processes determines nutrition, food security and rural livelihoods. This gendered reality is evident when observing the structure of agrifood systems, described as the *ensemble* of the interconnected activities and relationships involved in production, processing, distribution and consumption of food. Agrifood systems “cover the journey of food from farm to table –including when it is grown, fished, harvested, processed, packaged, transported, distributed, traded, bought, prepared, eaten and disposed of” (FAO, 2023, p. xi).

As I previously argued, in the Sub-Saharan context these systems are predominantly rural, informal and labour intensive, heavily relying on subsistence farming and women’s labour. However, despite their critical role, their contribution is often under-recognised and they face greater constraints than men (IFPRI, 2012). Structural inequalities such as restricted access to land, limited control over assets and exclusion from agricultural decision-making continue to hinder and marginalise their contributions (Doss, 2015; Hendriks, 2002). “Food systems have a key role to play in ensuring people’s access to regular, nutritious food” (World Food Programme, 2021) and therefore, understanding how women sustain the continuum of processes involved in agrifood systems in SSA is the first step to bringing to light the underlying dynamics driving the endemic food insecurity in the region.

2.4 Gendered Division of Labour in Agrifood Systems

Women in developing countries represent 43% of the agricultural labour force (FAO, 2011) and specifically in the Sub-Saharan region, women produce 60-80% of food crops (World Bank, 2025). Moreover, 70% of smallholder farmers are women and they produce the majority of the food in SSA (AGRA, 2014).

By and large, there exists a direct link between the greater share of women labour force in agriculture and lower levels of economic development, in that “women who work in agricultural production tend to do so under highly unfavourable conditions” (FAO, 2023, p. xxi). Limited levels of education, limited access to basic infrastructure and markets, high unpaid work burdens and scarce rural employment opportunities besides agriculture hinder women’s opportunities for off-farm work (*ibid.*). Women working on small and medium farms usually perform non-waged work as part of their domestic chores in the family farm. Usually, their contribution is not truly considered as labour, as it is part of the “reproductive” tasks of a mother, wife and daughter. Women’s contribution in these small family farms is crucial especially where there is no possibility of hiring other workers (Jacobs, 2014).

It is here worth explaining that the term “reproductive” is highly controversial and sparks debate in the academic community, but I here employ it to refer to tasks such as cooking, cleaning, caregiving and emotional labour which support household daily life and the well-being of its members. Since reproductive labour is mainly associated with women’s unpaid domestic roles, it is often devalued and rendered invisible given that it is not measurable in economic terms (Duffy, 2007). My aim here is to instead analyse and render visible the marginalised and invisible labour of rural women in SSA. This invisibility in economic statistics runs the risk of reinforcing the false distinction between gender roles, in which women naturally should perform domestic, *i.e.*, reproductive and un-waged work and men should perform productive and waged activities. Moreover, through this distinction not only are gender roles reinforced, but they are also naturalised in that women become culturally and socially expected to perform such tasks as a natural extension of their femininity, not really by individual choice but instead by deeply rooted heteronormative inequality norms (Karl, 2009; UN Women, 2019; Jackson, 1999). Academic scholars, especially feminist economists, have long critiqued this marginalisation and discrimination of reproductive labour, as it is the very labour that sustains economic production. Federici (2012) and Davis (1981) posit that the neglect and the structural injustice of the failed recognition of reproductive labour not only excludes it from the possibilities of labour protection and compensation but also hinders the visibility of the value of their labour.

The standard definition of agricultural labour force includes people working, formally or informally, in agriculture but it does not include women performing domestic chores related to agriculture, especially in the case of smallholder and subsistence farming. Therefore, women performing tasks seen as traditional domestic chores such as fetching water and firewood, processing and preparing food (FAO, 2011) are not perceived as active participants in the agricultural labour force. This definition ultimately undervalues women’s contribution to food security. In SSA, women are the ones responsible for transporting fuel and water supplies for domestic use, an arduous and time-consuming task that plays an invaluable —though unacknowledged— role in agriculture-related activities (IFPRI, 2012). Moreover, as climate change continues to wreak havoc in the region, women often face increasing work burdens, since they “are forced to take on multiple livelihoods, worsening

their time poverty” (GHI, 2024, pp. 26-27) *i.e.*, the lack of time due to the overwhelming quantity of productive and reproductive activities performed. Household tasks such as providing drinking water —given that women are considered as the primary responsible for water provision (Fonjong, 2016)—, collecting firewood and producing nutritious food for the family become more burdensome for women (Tahirindray, 2022) by placing additional responsibilities on women for ensuring household food security. This burden is intensified by the fact that in many rural contexts, “energy requirements for the preparation of food are met almost exclusively by burning firewood or charcoal from forests” (Galizzi, 2017, p. 73). In the face of widespread deforestation challenges in SSA (Houngbedji *et al.*, 2025), women’s burden is further compounded through time and labour not only due to food insecurity and water shortage, but also due to environmental strain.

Reddy and Rani (1982) argue that, even if the sustained labour of women, especially in the rural society, has historically been the pivot of the village economic system, the wide spectrum of domestic activities performed by women are ignored because they are not measured in economic terms. This stems from the assumption that any productive work conducted by women, in the monolithic role of mothers and housewives, are nothing but extensions of women’s primary function, thus considered as disregardable. Their research in Andhra Pradesh, India, revealed that by taking into consideration economic and domestic activities together, women work for a larger number of days and for longer hours, often for almost double of the hours per day of their counterparts. Women are engaged in economically productive work in *addition to* their domestic work. It is therefore not surprising that evidence from developing countries demonstrates that girls tend to spend more time on domestic tasks compared to boys, leading to limited time and opportunities for education and leisure activities (World Bank, 2001; Hendriks, 2002).

In this regard, Choudhary and Parthasarathy (2007) posit that “women’s weak fallback position is primarily attributable to prevalent ignorance about their work and their significance. There is an inherent tendency to look down upon their work, one important reason being the absence of direct monetary return from it since much of women’s work is unpaid, which is also perceived as obligatory” (p. 523). However, following ILO’s (2013) definition of work as “any activity performed by persons of any sex and age to produce goods or to provide services for use by others or for own use” (p. 3) both paid and unpaid reproductive work are to be considered as deserving the same dignity, economic and social value. It is true that it is difficult to provide precise and detailed statistics for unpaid reproductive work as these activities do not produce neither direct income nor measurable outputs and reproductive labour encompasses qualitative dimensions that resist statistics and numbers (Choudhary & Parthasarathy, 2007; Shiva, 2009). However, considering the extensive contribution given by women in agrifood systems, ignoring or dismissing this data seriously fails to capture a crucial element of food security in the region.

It is in this perspective that Glucksmann (2005) sociological framework of the total social organisation of labour (TSOL) provides a useful lens through which the multifaceted roles of women in rural agrifood systems in SSA. By accepting the definition of work given by ILO (2013) and expanding the conventional understanding of labour beyond formal paid employment as formulated by the TSOL (Glucksmann, 2005), it is clear that the different types of labour in rural environments in SSA are deeply interconnected and interdependent for the survival of agrifood systems. These labour patterns and the evident division of gender

are not just based on the rural economy necessities, but also on cultural, spatial and gendered dynamics.

Moreover, it is worth mentioning that many women in developing countries still struggle to overcome the sociocultural barriers that permit them to expand their identity beyond a caregiver figure due to the restricted access to education. “When faced with the problem of children’s education, the girls have to give way to their brothers because the prevailing idea is that in the course of their lives, they will play roles that do not require special training” (Galizzi, 2017, p. 71). Jackson’s (1999) theory encapsulates and helps explain the everyday lived experiences of women in SSA, in which, as much as in India, “the overwhelming majority of women workers in rural areas is afflicted by problems of poverty” (Reddy & Rani, 1982, p. 51), food insecurity and environmental vulnerability. Through Jackson’s analysis of kinship (1999), it is possible to better understand women’s identities as daughters, wives, mothers or sisters in the context of heterosexual family structures. These roles limit individual autonomy and reinforce the artificial and unequal gendered division of labour. It is the very kinship roles and ties, usually more rigid in rural *milieus*, that mediate the conditions of women’s access to land, participation in agrifood systems, labour —both productive and reproductive— and decision-making.

Although there is sometimes, to some extent, an overlap in the activities performed by men and women involved in agriculture, it is clear that there exists a stark gendered division of labour and “women are the mainstay of small-scale agriculture, farm labour force and day-to-day family subsistence” (Choudhary & Parthasarathy, 2007, p. 526). Women in SSA are typically involved in tasks such as planting, weeding, harvesting, post-harvest processing, food preparation and many other activities. Shiva (2009) reports that in SSA women cultivate as many as 120 different plants in the species left alongside the cash crops managed by men. Men, on the other hand, are more often involved in clearing the fields, cash crop cultivation, ploughing and tilling (Karl, 2009). What is important to understand here is that this division of labour is not haphazard. It is instead part of deeply rooted social, spatial, power and gender structures that marginalise and discriminate against women despite their massive contribution. As Doss (2015) states, since women are less likely to own the land, they may not culturally be perceived as farmers but as mere farm helpers, a definition that further diminishes their critical roles in agrifood systems.

This clear-cuts gender blindness towards women’s role in the economy rooted in gender relations ultimately results in a failure of distributive justice. This distributive injustice discriminates against women who are the ones losing out in the process of food distribution and food security: the crucial role of women’s contribution in food systems does not guarantee individual food security. Women are responsible for preparing the food served to their families, and if not through production, they are expected to raise the income necessary to purchase it and, in times of food shortage, they often sacrifice their own food intake (Choudhary & Parthasarathy, 2007). According to FAO (2023) women’s access to land, inputs, services, finance and digital technology, continues to lag significantly their male counterparts. “Constraints on women’s capacity leads to erosion of food security, especially for poor households in poor regions” (Shiva, 2009, p. 19), which renders these women more vulnerable to hunger and food insecurity.

As former head of the World Food Programme Josette Sheeran (2011) suggests “what if instead of looking at the hungry as victims —and most of them are small farmers who cannot

raise enough food or sell food to even support their own families— what if we view them as the solution, as the value chain to fight hunger?” Most of the farmers in SSA are engaged in subsistence agriculture, producing food primarily for household consumption under the many constraints of their rural environment (Giller *et al.*, 2021). Most of these farmers are women, and for them subsistence farming is not only an economic strategy, but the means through which they are able to ensure the household’s food security and survival. Therefore “what if for the women in Africa [...] we did the enabling environment for them to provide the food to feed the hungry children? (Sheeran, 2011). Reconsidering and reframing the importance of the role of women in agrifood systems, from invisible agents to active producers, is the rationale underpinning the project *Debo Bamtare* in the villages of Aram and Kenene in the Saint-Louis region in Senegal. The analysis of this development intervention will later serve as the case study of my research to corroborate and support the core arguments of this thesis.

Final Considerations

To summarise, in this chapter I mapped the intersecting social and spatial dynamics of poverty, hunger, gender and agriculture in SSA, revealing not only the structural dimensions of the region’s food insecurity and poverty, but also the unequal gendered division of labour that underpins agricultural dynamics in rural contexts. By analysing SSA’s general situation of hunger and poverty in the light of the 2030 Agenda and women’s pivotal contribution in agrifood systems, I tried to lay the foundations for a solid understanding of the lived realities and the complex challenges of rural women in SSA. To further elaborate my reasoning, it is essential at this stage to introduce to my research a theoretical framework able to conceptually explain and bring to light the deeper forces at play.

CHAPTER 3 – Rethinking Power through Food, Gender and Space

Introduction

Eating is never *just eating*. Such a simple action conveys a multitude of complex meanings and nuances. Decisions around who eats, what food is eaten, how food is produced, when and where people eat, are deeply embedded in wider multiscale structures of power and politics. In rural Sub-Saharan Africa, choices around eating are shaped by geographies, power struggles and gender disparities. After the previous overview of the Sub-Saharan context, it is undeniably evident that food is much more than just a substance for survival, hunger is not just the lack of food and poverty is not just the lack of income.

It is in this perspective that in this chapter I aim at exploring and expanding the power dimensions around food to build a solid theoretical framework to conceptually unpack the deeper meanings of food, gender and space in SSA. By drawing on multidisciplinary scholarly work, the theoretical perspectives of food security, right to food, foodscapes and food environment are examined to illuminate how these concepts are related to power and its main actors in SSA's agrifood systems. In order to do so, I employ the lens of feminist political ecology (FPE) to understand how power moves across different scales and how women's empowerment in this power continuum is a spatial and territorial everyday practice to ensure household food security and the survival of rural agrifood systems.

3.1 Food Security

If there are decisions taken around who gets to eat, it necessarily means that there are decisions around who *does not*. In SSA, given its high rates of food insecurity, poverty and hunger, the underlying reasons at the core of these decisions shape the everyday life of millions of Sub-Saharan Africans. Food insecurity is inherently unequal, both between and within countries, as it disproportionately affects marginalised demographics. That is a general situation in the Global South, as it is home to the lion's share of the world's hungry. Marginalised groups such as women, children, small farmers and rural dwellers are the most affected by malnutrition (Sachs & Patel-Campillo, 2014), yet are excluded from the decision-making processes governing food systems.

In rural SSA, food insecurity and hunger are deeply gendered, reflecting the division of agricultural labour of which women are the mainstay. Before delving into the profound implications of gender and food, it is now necessary to clearly define the nature of food security.

I previously defined food insecurity as the lack of access to enough safe and nutritious food for normal growth, development and an active and healthy life (World Food Programme, 2025), so the opposite, *i.e.*, food security, is the access to enough safe and nutritious food. However, I do recognise that for the purposes of this research, this definition is rather incomplete and needs further elaborating. Still, this definition holds true in that it allows the analysis of the underlying dimensions of access to food and the current constraints to its

achievement in SSA, such as the rapid population growth, lack of productive land —and land grabbing activities—, water shortages and climate change.

Food security is a multifaceted and flexible concept, given that its meanings and nuances have evolved and developed throughout the decades. Initially framed through the lens of food availability in the 70s, the concept shifted in the light of Sen's (1981) seminal work *Poverty and Famines* in recognising the value and the relevance of food accessibility —i.e., food is available and accessible— instead on focusing on the mere availability —i.e., food is available but not necessarily accessible—. It was a watershed moment for further definitions of food security: thanks to his entitlement theory (1981), food insecurity and the persistent hunger in SSA, especially in its rural areas, can be understood in the light of its entanglement with social, economic and political dynamics and the resulting hindered access to resources. Sen's entitlement approach analysed the phenomenon of famine not by focusing on food availability but on the individual's ability to access food.

His analysis brought about a ground-breaking way of thinking about famines. Indeed, Sen (1981) posits that famines occur even in contexts where food is available but, due to entitlement failure, the food is not accessible. Entitlements are collections of alternative bundles of goods and services from which an individual is free to choose. When an entitlement failure occurs, it is no longer possible to acquire that specific bundle of goods. For example, when a disadvantaged rural population in SSA faces displacement due to land grabbing activities, it loses access to their land for crop production and access to water sources. Despite food being available in the nearby urban market, the displaced population cannot guarantee its food security due to the failure of its entitlements, in this case, the loss of the land used for subsistence agriculture and the lack of the income necessary to acquire food on the urban market. Thus, the population is confronted with the risks of food insecurity, hunger and malnutrition despite the availability of food.

Sen was the first to recognise there are deeper dynamics at the heart of food insecurity and the dominating narrative of producing more food supply and increasing agricultural output is not an adequate solution to the problem. During the 1996 World Food Summit, a common definition of food security was agreed upon as the condition in which “all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food” (FAO, 1996). This definition marks an important milestone given its focus on multidimensionality and the four pillars to determine food security: availability, access, utilisation and stability.

3.1.1 The Four Dimensions of Food Security

Availability refers to the supply side of food security and it is determined by food production. When food is available it means that it is present in adequate quantity or/and quality, but, as argued earlier, it is not a sufficient condition to guarantee food security if it is not coupled with the other three dimensions. Access refers to the ability of households to obtain the adequate quality and quantity of food. Access is not merely about household income, though it is an important aspect, but it also considers the social intersections hindering access to food (Food Security Cluster, 2023).

Gender and age, for example, are factors which can critically undermine the access to food even when food is available. As Sachs and Patel-Campillo (2014) observe “women's bodies are often the sites of malnutrition – for women themselves and for their children” (p. 398). Despite women's massive contribution to agricultural activities, women and girls face

complex intersecting barriers which stem from (re)productive, cultural, economic and intra-household dynamics. Food allocation patterns often favour men over women and children too, especially in low-income households, with men receiving priority access to high-quality nutritious food such as animal proteins, while women, even when pregnant, consume less nutritious foods (Blum *et al.*, 2023). Moreover, there exists abundant evidence demonstrating that when food scarcity occurs in a household, “the tendency is to favour the feeding of sons rather than daughters” (Galizzi, 2017, p. 71), reflecting entrenched gender norms and perceived future economic returns (Haddad *et al.*, 1997).

The dimension of utilisation refers to the adequate use of the available and accessible food in order to acquire the necessary nutrients. This dimension takes into consideration the ways in which food is stored, processed and prepared, encompassing wider variables such as the quality of water and cooking fuel (Food Security Cluster, 2023) and highlighting the gendered division of household labour, given that “women also typically assume major responsibility for food preparation, cooking, and provision of water and sanitation (Sachs & Patel-Campillo, 2014, p. 403).

In SSA water quality and cooking fuel are a major concern in rural areas, in which the risk of diseases such as diarrhoea, respiratory infections and impaired development, especially for women and children, is extremely high (Rosa *et al.*, 2014; Das *et al.*, 2017). There exists a direct correlation between water source type and food security: infrastructures to improve water sources reduce food insecurity (Mazenda & Nkwana, 2025), which demonstrates that even if food is available and accessible, food security may be hindered by lack of food safety and absorption of adequate nutrients. This situation is better encapsulated in the concept of nutrition security, described as the secure access to an adequate nutritious diet coupled with a sanitary environment, adequate health services and care. It differs from food security in that it does not only consider the aspects of dietary adequacy but also the adequate caring practices, health and hygiene (FAO *et al.*, 2017).

The last dimension, stability, refers to the consistency and reliability in the other three dimensions, which means that “household should not risk losing access to food as a consequence of sudden shocks or cyclical events” (Food Security Cluster, 2023). Due to the adverse effects of climate change, rural livelihoods in the region are jeopardised and run the risk of incurring into transitory or chronic food insecurity. The dependency on rainfed agriculture leaves rural populations exposed to the dangers of erratic rainfalls, drought and heatwaves. Moreover, it is not only environmental hazards that are threatening the stability of food security in SSA. Indeed, stability also refers to economic and political disruptions that could affect the region, such as conflicts, political instability and economic shocks. All these conditions render stability an extremely fragile pillar of food security given that there exists a series of compounding risks which seriously threaten the livelihoods of the most fragile in rural SSA.

3.2 For an Inclusive Right to Food

Food security intersects with the right to food, and, although often used as synonyms, they are two interdependent concepts, given that the former provides the operational framework by giving the roadmap and the tools to implement and define food security, whilst the latter provides a normative and legally binding base. The right to food is a human right, first

formulated in Article 25 of the Universal Declaration of Human Rights (1948) which states: “everyone has the right to a standard of living adequate for health and well-being of himself and of his family, including food”.

The right to food was later reinforced in Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR, 1966) which obligates States to recognise “the fundamental right of everyone to be free from hunger”. Thus, the right to food stresses the legal accountability of States in providing all the means necessary to achieving this inalienable right. This definition of right to food focuses on the ability of States to implement “through international cooperation, the measures, including specific programmes, [...] to improve methods of production, conservation and distribution of food”, therefore underpinning the dominant food discourse in the 70s, *i.e.*, that food insecurity is only an issue of availability.

I posit that the right to food can be interpreted as the other side of the coin of Sen’s entitlement approach (1981) because, their complementarity, when applied to vulnerable rural contexts in SSA, allows for a multiscale understanding of food insecurity and hunger. On one hand, Sen’s (1981) entitlement approach defines the mechanisms by which some individuals do not have access to food, even in instances of food availability, due to a failure of entitlements. On the other hand, the right to food establishes the food insecurity provoked by a failure of entitlements as a violation of fundamental human rights. Despite the initial limited view of the wider dimensions of food security, the right to food is relevant in that it establishes not only a legal, but also a moral obligation for States to address the underlying forces from the household to the global level hindering the full realisation of the right to food.

I reckon that at this stage it is necessary to introduce the concept of food sovereignty to add a further layer to the understanding of food security and right to food. Coined by the grassroots coalition *La Vía Campesina* during the 1996 World Food Summit, food sovereignty is defined as “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations” (Declaration of Nyéléni, 2007, p. 9).

Food sovereignty is presented as an alternative to the discourses of the dominant neoliberal models in agricultural and commercial policies (Alahyane, 2017), as it goes beyond the narrative of food security equating food availability and it recognises “food as a fundamental right of all people and identifies it as the common ground, starting point and guiding theme for achieving economic, social and political justice” (Declaration of Nyéléni, 2007, p. 16). Food sovereignty goes beyond the right to food too, as it creates a clear and concrete framework which emphasises the control, the participation and the self-determination of local communities —notably small-scale subsistence farmers such as Sub-Saharan women—, against State and market forces. Food sovereignty is not only the right of all peoples to be free from hunger: it also encapsulates the right of all peoples to independently conceive and implement their own agrifood policies, the right to healthy, nutritious and culturally appropriate food and the right to access to the resources and means (technological, institutional and financial) to enable food productions (Alahyane, 2017).

In Africa, a continent in which the majority of the livelihoods are derived from agriculture, the concept of food sovereignty is paramount. As highlighted by Ibrahima Coulibaly, President of

the National Coordination of Peasants' Organisation of Mali (CNOP): "For us in Africa it is important to adhere to the concept of food sovereignty, because it encompasses all the elements of the alternatives to the current agricultural model being imposed on us. For example, food sovereignty first of all talks about the rights of States to define their own policies" (Declaration of Nyéléni, 2007, p. 20).

Food sovereignty thus constitutes a powerful political project for autonomy, agency and emancipation from external forces. In other words, food sovereignty is a "*reconnaissance du droit qu'on tous les Pays à développer leurs capacités productives pour satisfaire les besoins alimentaires de leurs populations*" and "*une voie de résolution des problèmes alimentaires dans le monde bien éloignée des prescriptions de l'idéologie néolibérale*" (Alahyane, 2017, p. 168).

Ultimately, food sovereignty provides the missing piece to the discourse of food security and right to food in agrifood systems in SSA as it brings to light the connection between food, land and labour, which in rural areas are inevitably intertwined with power imbalances, structural constraints and gender inequalities. Amidst these power imbalances, there are complex issues related to the gender-neutral framework adopted for the definition of right to food when, factually, food insecurity disproportionately affects women.

Drawing on Binion's (1995) feminist critique of human rights, the traditional approach to human rights hides and neglects women's lived realities by assuming that the universal subject of human rights is implicitly male. Therefore, to investigate the ways in which the systemics and structural gender inequalities work to impede the full realisation of the right to food for women in their everyday lives, it is necessary to carefully analyse patriarchal systems, unequal access to land and resources, labour burdens and time poverty.

Furthermore, "while the focus of analysis is on women's experience, a feminist approach might have immediate implications for the rights of all disempowered peoples and raise questions about social organization generally" (Binion, 1995, p. 513). In other words, considering women's experience and integrating it in human rights's discourses and definitions is not only a women-specific operation, but it benefits other disproportionately affected groups too. Moreover, the right to food's focus on the ability of States to guarantee individuals' right to food reinforces the theory of the insulation of the family as a private domain, opposed to the State's public domain, creating the false illusion of a dual-institution society which excludes the consideration of powerful bodies such as the familial patriarchal household in which the right might not be respected (*ibid.*). The assumption that States alone can be the guardians of the right to food without also considering the multiscale relations, from intra-household complexities to the global economic market, fails at grasping the nuances of entitlement failures.

3.3 Power and Politics of Everyday Life: Unpacking Feminist Political Ecology

The dichotomy of public and private in the right to food discourse runs the risk of hiding the political nature of domestic spaces and the power structures underpinning household dynamics. These dynamics are the patriarchal structures that govern access, control and decision-making about food and resources. A gendered perspective is instrumental for analysing how power operates through an unquestioned acceptance (Kabeer, 2005).

Feminist political ecology (FPE) represents a powerful lens through which this conceptual tension between State and household can be challenged (Elmhirst, 2015). FPE interrogates the structural forms of power that define inequality and differentiate access and control of resources through multiple forms of social difference such as gender, class, ethnicity, age, ability, sexuality and nation. (Clement *et al.*, 2019).

In the context of this research FPE provides an adequate theoretical framework in that it examines the dynamics of gender in relation to the natural environment and natural resource-based livelihoods (Elmhirst, 2015) such as agriculture in rural SSA. Gender is here intended as “critical variable in shaping resource access and control, interacting with class, caste, race, culture, and ethnicity to shape processes of ecological change, the struggles of men and women to sustain ecologically viable livelihoods, and the prospects of any community for sustainable development” (Rocheleau *et al.*, 1996, p. 4). Furthermore, “FPE offers sensitivity to complex assemblages of power that underlie environment and development issues” (Elmhirst, 2015, p. 527) to dissect the wicked problems of our times, such as climate change, gender inequality, hunger and poverty.

If households are conceived as sites of power, negotiation and contestation rather than mere gender-neutral and apolitical bodies, it becomes clear how rural SSA’s agrifood systems begin to reveal their complexities. Food insecurity, considered through a multiscalar perspective, is much more nuanced than a failure of domestic policies or international agendas. It is rooted in household gender dynamics at the most elementary scale and in gender power relations in regional and customary land tenure regimes and wider global trade systems. Food insecurity therefore becomes a “multi-scalar collective action issue” (Clement *et al.*, 2019, p. 3) and it is deeply connected to climate change.

FPE melds environmental change together with feminist social justice to dissect how power multiscalarly operates both horizontally and vertically to shape gender power relations. These relations influence everyday interactions with embodied, ecological, political-economic processes, embedded and contested in people’s actions and experiences in the environment (*ibid.*). Women in SSA are neither a homogeneous group nor a monolith, they have different and diverse experiences, responsibilities and interests in their environment and these experiences are filtered not only through gender, but also through cultural and societal norms, spaces and places.

Women’s vulnerability to food insecurity must be conceived as the result of gender inequality rooted in power structures that affect women’s full empowerment. Power is the “*ability to make choices*” (Kabeer, 2005, emphasis in text, p. 13) and this power creates a system based on the ability to make choices for oneself and the others that results in winners and losers. As Kabeer (2005) claims: “to be disempowered means to be denied choice, while empowerment refers to the processes by which those who have been denied the ability to make choices acquire such an ability. Therefore, “*empowerment entails change*” (*ibid.*, emphasis in text, pp. 13-14).

3.4 Em-Power: Spaces, Scales, Territoriality

In the context of agrifood systems in SSA, the process of change for empowerment for women is both a socioeconomic as well as a spatial and territorial process. By drawing on

Massey's (1994) conceptualisation of space as a complex and dynamic constellation of social relations embedded in power and meaning, the ways in which gender relations affect Sub-Saharan rural women's experiences of space are revealed. "Gender relations, like all social relations, are multi-stranded: they embody ideas, values, and identities; they allocate labour between different tasks, activities, and domains; they determine the distribution of resources; and they assign authority, agency, and decision-making power. This means that gender inequalities are multidimensional and cannot be reduced to some single and universally agreed set of priorities" (Kabeer, 2005, p. 15).

Women's roles in agrifood systems, from food production to household activities simultaneously shape and are shaped by spatial dimensions in rural SSA. Massey's relational space (2005) is extremely dynamic, contested and socially constructed through everyday interactions, power relations which perpetuate inequality. Space is therefore far from being the mere background of Sub-Saharan women's everyday lives, but is the co-constructed terrain in which gender relations are negotiated and reaffirmed in everyday experiences such as gendered division of labour, access to resources such as land and food and relationship with the environment, given that women bear the burden of providing solutions to adapt to environmental and socioeconomic stresses. Their contribution to the agrifood system is performed in a relational space shaped by multiscale forces that range from the micro-scale to the macro-scale, spanning individual, household, local, regional, cultural, national and global dynamics.

Scales are both the inclusive or exclusive outcomes of socio-spatial processes that regulate and organise social power relations (Swyngedouw, 2004). These social power relations not only shape women's agricultural activities but are also shaped by them in a reciprocal relationship in which women engage within complex multiscale geographies through everyday practices. Indeed, de Certeau's (1984) theory of everyday practice demonstrates how rural women are not just passive victims of power structures but are instead pivotal actors for change and development in SSA. The daily acts of cultivation, caregiving and adaptation to environmental stressors are acts in which they assert and reaffirm spatial agency in the margins of multiscale gender power structures. Agency is the "power to" and it refers to the ability of making and acting on individual life choices, even despite external opposition. Agency, together with achievements and resources, are "three dimensions that constitute the pathway for empowerment" (Kabeer, 2005, p. 15).

Women's agency, although often sidelined and marginalised, emerges in 'subversive' and creative everyday practices to reframe and transform social and spatial relations. As de Certeau (1980) highlights: "*la vie quotidienne s'invente en pochant de mille façons dans la propriété des autres*" (p. 60). Rural women in SSA interact and operate within complex power dynamics and claim their space across multiple scales. Scales are "never fixed, but are perpetually redefined, contested and restructured in terms of their extent, content, relative importance and interrelations" (Swyngedouw, 2004, p. 33). Therefore, "the continuous reshuffling and reorganization of spatial scales are integral to social strategies and serve as the arena where struggles for control and empowerment are fought" (p. 33). This spatial scale reorganisation leads to the redefinition of social power by strengthening power and control while simultaneously disempowering others (*ibid.*). Scales are neither inherently positive nor negative, given that their outcomes are not dependent on the nature of the scale but instead on who holds power and who makes the decisions.

Thus, in rural SSA, agrifood systems and food security are not only shaped by economic and environmental factors, but their relationship with gender dynamics means that the resulting “*rapporti transcalari*” (Dematteis & Governa, 2005) are to be conceived as “*relazioni capaci di orientare i processi di sviluppo, intrattenute da attori locali, singoli o collettivi, che interagiscono e contrattano con attori, anch’essi singoli o collettivi, che operano a livelli diversi*” (*ibid.*, p. 80). These *rapporti transcalari* are the cross-scalar dynamics governing processes of change enabling territorial actors to enact their power strategies at the local, regional, national and global level.

By drawing on Dematteis and Governa’s (2005) concept of territoriality, territories become the critical components of change. Far from being a fixed and static construct, they are relational: “*il territorio non è più un semplice ambito spaziale entro il quale agire, ma un ‘mezzo’ per avere relazioni negoziali, cooperative, competitive, vantaggiose*” and “*la territorialità è appunto quest’insieme di rapporti che abbiamo con le cose per farne la materia e i mezzi di rapporti con gli altri*” (Dematteis & Governa, 2003 in Dematteis & Governa, 2005, p. 79). Hence, it is in this perspective that I refer to territorially-aware interventions as activities able to harness the potential of territory as a pivotal element for change in order to sustain inclusive, co-constructed and place-based development that valorises its environment and is aware of the realities of the local populations. What this territorial approach brings about is an idea of possible autonomy for local systems in building their own development trajectories, in relation to other places and scales, through the valorisation of local resources, both tangible and intangible (Bignante *et al.*, 2024).

3.5 Spatialising Food Environments

In the relational space (Massey, 2005) in which agrifood systems are at the core of food security, who or what holds the power to influence decisions about food? It would be simplistic to consider food choices as a mere result of individual preferences based solely on economic access. As a matter of fact, in the same way as territorial actors participate in mutually-shaping relationships with multiscalar forces (Dematteis & Governa, 2005), food co-constructs and co-produces space. Decisions around food are filtered through a variety of spaces which interact with different dimensions. These decisions determine nutritional and cultural practices, reflect power, access, entitlements (Sen, 1981) and spatial inequalities.

Pettenati and Toldo (2018) build upon Glanz *et al.* (2005) for their analysis of food environments, “*cioè lo spazio materiale e immateriale entro cui vengono prese le decisioni relative al cibo, come costruito da diverse variabili in relazione fra loro*” (p. 129). Amidst the intersection of the types of variables described *i.e.*, environmental, individual and political, the environmental variables capture the underlying issues of food insecurity and agrifood systems in SSA. Described as the “*insieme eterogeneo di elementi di diversa scala (dal nucleo familiare alla città in cui si vive) e diversa natura (organizzative, legate alla comunità e al singolo consumatore)*” (*ibid.*, p. 129), they are the determinants for food availability and accessibility (Pettenati & Toldo, 2018). This focus on food availability resonates with FAO’s (2016) definition of food environments: “food environments comprise the foods available to people in their surroundings as they go about their everyday lives and the nutritional quality, safety, price, convenience, labelling and promotion of these foods” (p. viii).

Following Turner's *et al.* (2018) definition, a food environment is the interface where people interact with the wider food system to acquire and consume food. Such interface filters people's spatial food perception along the lines of availability, market dynamics, product properties, accessibility, affordability, convenience and desirability of food sources (Turner *et al.*, 2018). Food environments research has traditionally predominantly focused on market-based food sources in the Global North. According to Downs *et al.* (2020), there exists a need for a more exhaustive and expanded definition of food environment that could encapsulate the realities of low and middle-income countries (LMICs). Therefore they define a food environment as "the consumer interface with the food system that encompasses the availability, affordability, convenience, promotion and quality, and sustainability of foods and beverages in wild, cultivated, and built spaces that are influenced by the sociocultural and political environment and ecosystems within which they are embedded" (Downs *et al.*, 2020, p. 4).

The co-existence of formal and informal food markets, as well as non-market food sources such as own production, wild food harvesting and food transfers makes SSA's food environment dynamic complex and requires a more holistic approach to capture its nuances (Turner *et al.*, 2018). The main food source in rural SSA is own production, and it is evident that the shortcomings of agriculture in the region deeply influence its food environments. The channels of production, consumption and acquisition are unevenly distributed across space and are embedded in social and territorial inequalities.

Food environments are made up of two domains, *i.e.*, the "*external domain*" and the "*personal domain*" (Turner *et al.*, 2018, emphasis in text, p. 95). The social and territorial inequalities are part of the external domain which is "the world of opportunities and constraints that are 'out there' within a given context". On the other hand, the personal domain "includes a set of individual level dimensions, including food accessibility, affordability, convenience and desirability" (*ibid.*, p. 95). The external domain in SSA, dominated by low agricultural productivity, seasonal variability, the vulnerability to weather hazards and environmental shocks, seriously hinders both the availability, the quantity and the quality of sufficient nutritious food to avoid the widespread conditions of food insecurity.

Conversely, the personal domain is dominated by gender structures which hinder women's access to nutritious food. The variables related to the constraints faced by women in the agrifood system, from the marginalisation of their labour to the burdensome responsibility of finding survival solutions —often threatened by environmental factors— for household survival.

In rural SSA these domains are deeply entrenched with spatial and gender disparities that negatively shape nutritional outcomes for the most vulnerable. Thus, malnutrition is to be conceived as a direct outcome of the unbalanced structure and experiences of food environments in SSA. Malnutrition in SSA remains a critical preoccupation in the region, considering the concerning estimates which claim that 264 million people face hunger and 24,1% of people are undernourished (Action Against Hunger, 2025).

It is against this alarming backdrop that rural women's empowerment in agrifood systems emerges as a critical factor and opportunity for redirecting nutritional outcomes. Sen and Begum's (2015) state that women's decision-making power in relation to household resources and maternal health has positive consequences on maternal nutrition which ripples through child nutrition and the intergenerational transmission of poverty: "female

agency can enhance nutritional status of mothers in resource-poor setting and can overturn the vicious cycle of maternal malnourishment leading to child malnourishment” (Sen & Begum, 2015, p. 64). This resonates with the concept of “agency” (Kabeer, 2005) as a fundamental dimension for empowerment by which in food environments’ (Turner *et al.*, 2018) *personal domain* decisions are taken and acted upon even in the face of *external domain* factors.

According to Downs *et al.* (2020) food environments are the critical place in the food system to implement interventions that support sustainable diets and address the “global syndemic” of undernutrition and climate change, “because it contains the total scope of options within which consumers make decisions about which foods to acquire and consume” (p. 1). Thus, integrating the potential of women when considering food environments and their intersections in rural SSA offers a valuable lens for a detailed scrutiny of the spatial issues of food insecurity and gender inequality.

3.6 Beyond Food Environments: Foodscapes and Acts of Spatial Production and Agency

The analysis of food environments becomes even more insightful when considered in the light of foodscapes. MacKendrick (2014) describes foodscapes as “the places and the spaces where you acquire food, prepare food, talk about food, or generally gather some sort of meaning from food (p. 16)”. The concept of foodscapes expands the perspective of food environments, in that they highlight the nuanced lived experiences around food, taking into consideration cultural heritage, geography and ecology.

The concept of foodscape draws on Appadurai’s (1990) notion of the “common suffix scape to indicate first of all that these are not objectively given relations which look the same from every angle of vision, but rather that they are deeply perspectival constructs, inflected very much by the historical, linguistic and political situatedness of different sorts of actors” (p. 296). Foodscapes provide a relational lens to rural agrifood systems, they are “dynamic conglomerates that include the continuous coevolution of landscapes, actors, and biocultural processes linked to food ingredients, products, dishes, as well as their attached sociabilities” (Cervasco *et al.*, 2023, p. 11).

Following FPE’s perspective (Rocheleau *et al.*, 1996), such continuous coevolution is negotiated in ways that are far from being neutral in their approach to gender, ecology and access to power. Rural women’s subjectivities *i.e.*, the way in which they construct and express their identities, are defined and contested according to specific ecological conditions and that such specificity has consequences for both gender and environment (Nightingale, 2006). Therefore, gender relations and the interactions with the environment—and the food environment—are context-specific and in SSA they have concrete and direct implications for food security. Malnutrition thus becomes a part of foodscapes because it highlights how gender relations, socioeconomic and environmental stressors intersect in a given food environment.

Foodscapes provide a more holistic perspective by involving social, spatial and temporal approaches (Vonthron *et al.*, 2020) to food environments, bringing to light the feelings and the meanings embedded in everyday food practices. In agrifood systems in rural SSA

foodscapes are the “lens for drawing attention to the relational nature of food provisioning strategies that can be constrained by the built environment by demonstrating the ways these strategies are both social and mobile” (Hammelman, 2018).

Sub-Saharan women shape both their landscape and the food that they produce through their everyday strategies, necessary to face the constraints of the built environment to navigate food insecurity. Employing de Certeau’s perspective (1980), everyday strategies are the “*arts de faire*”: “*ruses subtiles, tactiques de résistance par lesquelles [l’individu ordinaire] détourne les objets et les codes, se réapproprie l’espace et l’usage à sa façon*”.

These *arts de faire* are the everyday tactics that are performed within the socioterritorial environment that restricts agency, access and decision-making power. They create the connection between local food, landscape and heritage. “The landscape shapes the types of crops, livestock, and wild food resources that can be required, and the local heritage is the result of mutual interactions between the physical environment and its sociocultural *oikos*: both influence what and how food is grown/collected/hunted/breeded, and how it is prepared and consumed” (Cervasco *et al.*, 2023, p. 11). I argue that women’s embodied knowledge about landscapes and heritage are creative and resilient acts that not only guarantee survival in the context of subsistence agriculture but are also acts of spatial production and agency (Kabeer, 2005) performed simultaneously within and against their given sociocultural *oikos*.

SSA’s landscapes are dynamic and complex products of intersecting issues of power, identity and social relations (Massey, 1994). The resulting relational space (Massey, 2005) is the sphere in which inequalities are situated. This sphere opens the possibility for women’s *acts de faire* aimed at shaping and repossessing food environments amid structural limitations. It is exactly between the cracks of this sphere that women’s empowerment takes place despite the built environment to allow for a local development aimed at securing food security.

Final Considerations

In this chapter I demonstrated the complex and interconnected reasons of why food insecurity does not stem from a failure of production, but instead from a failure of entitlements (Sen, 1981). To elaborate on the underlying characteristics of the entitlement failures, I introduced a solid theoretical framework which guides the next sections of my research. The cross-disciplinary approach of this theoretical framework clearly underpins the claim that entitlement failures are deeply gendered and embedded in space. Women—and their children—are often the most affected individuals in distributive outcomes of food allocation due to structural and systemic exclusions.

However, it is the same women who, through empowerment, everyday *acts of faire* and agency can navigate SSA’s foodscapes to shape food environments within structural constraints. Thus, eating is never *just eating*: “eating connects us to the earth, animals, technologies, virtual space, ecological processes, and other people, both near and far, in multiple places and spaces at all scales. It connects us in power, politics, and identity relations, mobilising issues of agency and structure, unequal relations and injustice, emotions, despair, and hope” (Goodman in Kneafsey *et al.*, 2021).

CHAPTER 4 – Women and Land: Navigating Multiscalar Spaces of Care and Control

Introduction

Women represent the lion's share of the world's agricultural labour force and their contribution is vital to the survival of households, communities and food environments. However, a critical issue has not yet been tackled in this research: who owns the land that they work? Across rural SSA, women cultivate and care for their families and environments to ensure food security and biodiversity. Nevertheless, as I have previously explored, their labour is marginalised and undervalued. Their roles are sidelined due to complex structural constraints which limit their agency and hinder potential pathways to empowerment and development.

It is against this backdrop that in this chapter I provide an overview of the pivotal contributions of rural women to the realisation of food security, their impact on household nutrition and the consequences of malnutrition for women and children. Moreover, I investigate the nature of the structural barriers in the access of land faced by women through a multiscalar analysis, from the individual to the global scale. From the most intimate space, *i.e.*, their body, to their household and their community customs and lastly to the global dynamics governing agrifood systems, women are simultaneously implicated in multiple interconnected webs of care and control. Paradoxically, while on the one hand care is expected and seen as a maternal duty, part of their load of unproductive work, at the same time, control is exercised by multiscalar external forces posing barriers on such acts of care, including ensuring food security. By examining mainstream developmentalist representations of rural Sub-Saharan women, I place those narratives in the theoretical framework of this thesis to make them dialogue with more contemporary, context and gender-sensitive perspectives on agrifood systems, nutrition and empowerment in development.

4.1 Eating Last and Least: Gendered Bodies as Sites of Constraint

According to the WHO (2000), nutrition is the cornerstone of good health: "nutrition is a fundamental pillar of human life, health and development across the entire life span. From the earliest stages of foetal development, at birth, through infancy, childhood, adolescence, and on into adulthood and old age, proper food and good nutrition are essential for survival, physical growth, mental development, performance and productivity, health and well-being" (p. 3). Nutrition has a key role in wider development issues, and it interacts with other areas, including education, poverty, sanitation, agriculture, gender inequality and many more. Thus, inadequate nutrition is both a cause and a consequence of the socioeconomic and environmental problems of our time (Baye, 2017).

Despite women in SSA accounting for up to 80% of household food production (World Bank, 2025), they are the most vulnerable to food insecurity. According to UN Women (2024), about 60% of the world's hungry are women and girls. Women's nutrition status is threatened by episodes of food shortage during which "women act as shock absorbers for the household by the liquidation of their own nutrition status" (Quisumbing *et al.*, 1995). This

phenomenon is best encapsulated in the practice of “eating last and least”, which disproportionately affects women in rural communities in SSA. The practice is not to be quickly dismissed as only stemming from a biological and cultural dimension, as it embodies a manifestation of deeply rooted gender norms dictating allocation and distribution of resources to members of the household. It reflects systemic gender bias and hierarchies embedded in household power dynamics (Alambo, 2024).

Women often eat after men and children, receiving smaller portions and eating less nutrient-dense food. Notably, pregnant and lactating women have lower levels of nutrient adequacy relative to their requirements than both men and other women. In instances where women are food insecure, it is not only a matter of food quantity, but also, and more importantly, a matter of quality, *i.e.*, of micronutrient intake. Caloric adequacy does not necessarily equal dietary adequacy, as calorie-adequate diets may be deficient in micronutrients and/or protein (DeRose *et al.*, 2000). It is here important to highlight that, despite the superficial notion that women need to eat less than men, DeRose *et al.* (2000) remind that “the simple fact that men eat more than women does not necessarily mean that they satisfy a higher proportion of their needs than women: needs differ by body size, metabolic rate, activity level, health status, and reproductive status”(p. 529).

For instance, Alambo (2024) points to examples in SSA in countries such as Nigeria, Ghana and Senegal, in which men traditionally eat first, then followed by women and children: “these traditions often stem from entrenched power dynamics rather than specific cultural requirements”. In Nigeria, notably, 49.5% of respondents of the UN Women Gender Equality Study (2022) believe that in times of food shortages, priority should be given to men. Moreover, there exists a connection between this form of gender discrimination in food allocation and other gender-based inequalities. A 2022 report by CARE on GBV (gender-based violence) argues that gender inequality is at the root of both women’s food insecurity and violence, as both phenomena often overlap, given that women who risk going hungry are also the same ones more likely to experience GBV.

Furthermore, Gregory Spira, head of the gender, food, and climate justice programs at CARE International, argues how it is both at the household scale and on a national legislative scale that women’s nutritional needs are sidelined, since “not only do patriarchal norms in many vulnerable countries result in policy responses designed primarily with men’s needs in mind [...] but they also create social pressure on women to put men’s needs ahead of their own” (Mitra, 2023). This reflects FPE’s endeavour of dissecting how systems of power operate and resist across scales (Harcourt *et al.*, 2023) and the multi-stranded nature of gender relations which determine the distributions of resources (Kabeer, 2005). In other words, multiscalar dynamics governing the different spaces of power do not operate in a vacuum: SSA’s rural women’s constraints lay within the intersection of these scales of power, each with their own particular system of control but persistently interacting with each other.

Women’s nutritional health should not become a household survival strategy, given that their health, especially during pregnancy, directly influences the health of their children. “Improvement in prepregnancy nutrition status, weight gain during pregnancy, diet during lactation, and breastmilk production, better-nourished mothers lead to higher-birth-weight infants and better nourished children” (Quisumbing *et al.*, 1995). Undernourished mothers are likely to perpetuate the intergenerational cycle of malnutrition, since they are most likely to give birth to undernourished children (Zewude *et al.*, 2024) which will turn into

malnourished adults, and, in the case of adult women, “when underfed girls become mothers, they give birth to low-birth-weight babies, vulnerable to disease” (Shiva, 2009, p. 25).

In the lens of Sen (1999), “eating last and least” results in a severe deprivation of basic capabilities, in that women lack the freedom to achieve individual nutritional well-being, access to food and control over household resources due to gender hierarchies. Thus, the household can be understood as a “*spazio materiale e immateriale entro cui vengono prese le decisioni relative al cibo*” (Pettenati & Toldo, 2018, p. 129), part and parcel of the environmental variables (Glanz *et al.*, 2005) shaping women’s food environments which all together create the “*insieme eterogeneo di elementi di diversa scala*” determining food availability and accessibility (Pettenati & Toldo, 2018, p. 129).

The access to food may be hindered even in a context of food availability because it is mediated by a failure of entitlements (Sen, 1981) which limits the full satisfaction of their nutritional needs. It is in this perspective that I argue that women’s bodies can be the first spatial site (Massey, 2005) of constraint in which power dynamics, result of contested and embedded social relations, are manifested and demonstrate the double nature of rural women’s bodies in agrifood systems. Productive and reproductive bodies, they are both expected to prepare the meals and bear children, yet limited in their capacity to sustain both reproductive and productive work, which ultimately leads to severe consequences.

Indeed, “inadequate dietary intakes before, during, and after pregnancy have the potential to harm mothers and their offspring” (Zewude *et al.*, 2024, p. 2). Moreover, a poor nutritional status not only compromises reproductive health but also women’s ability to engage in productive work, including farming in subsistence agriculture and income-generating activities (IGAs). Undernutrition results in fatigue, diminished physical strength, increased likelihood of disease and much more, which ultimately reduces rural women’s capacity in agrifood systems, where physical endurance is necessary to endure the strenuous work in agriculture.

Therefore, women’s individual nutrition is not only the result of private matters in the household but reflect politics of control embedded in the multiscalar spectrum of systems of power. The manifestation of these power dynamics through women’s bodies demonstrates that their nutritional deprivation is both a consequence and a cause of their marginalisation, reinforcing cycles of chronic poverty, malnutrition and vulnerability to global forces.

4.1.1 Feminisation of Food Insecurity: How Conflict and Climate Affect Nutritional Outcomes

In the face of the contemporary challenges of SSA, from displacement related to LSLAs, ongoing conflict areas, abject poverty and the mounting impacts of climate change, women emerge as the most vulnerable demographic. Raising temperatures, shifting rainfall patterns and extreme weather hazards result in crop failures and livestock loss, therefore jeopardising household food production, food security and income.

In Plateau State, Nigeria, for example, food security is threatened by both climate change and conflict. Here, erratic rainfall and violent farmer-herder conflicts have resulted in disrupted traditional farming systems and rural livelihoods, undermining women’s ability to manage household food provisions and to cultivate according to planting seasons (Ishola &

Luginaah, 2025). Moreover, in such circumstances, women are exposed to greater risks of GBV: “food-related livelihood activities such as tending fields, foraging for food, or fetching water make women and girls vulnerable to conflict-related sexual violence where conflict parties use such violence. The scarcity of food during conflict forces women and girls to travel further from their villages in search of nourishment, increasing the likelihood of their encountering armed groups who may use sexual violence” (UN Women, 2024). Violence here emerges as a two-pronged critical component in determining women and household nutritional destinies: violence is both structural in the form of systems of power dictating food security outcomes and it exercised directly in the form of GBV during conflicts.

Armed conflict often leads to displacement in which women lose access to land for subsistence agriculture, clean water and energy sources, thus not only reducing food availability but also food access, ultimately eroding women’s entitlements (Sen, 1981). UN Women (2024) reports how, in conflict-afflicted regions, hunger is the cause and the result of conflict, and women are the ones suffering the most, as they sacrifice themselves to guarantee sufficient food for the household members. Moreover, there is evidence that women-headed households are more likely to experience food insecurity, especially during conflicts in which women may be left widowed, resulting into less available labour for agricultural tasks, less access to cash or credit and smaller landholdings (Ishola & Luginaah, 2025; UN Women, 2024).

For instance, Mullaney (2012) analyses how environmental degradation and civil conflict in Western Sudan threatens women’s ability to guarantee household food security. The rural western region has registered high rates of male out-migration from rural areas, resulting in the predominance of women-headed households in rural villages. These women are “responsible for every aspect of agriculture and animal husbandry in addition to household duties and raising the family’s children”, performing tasks traditionally performed by men—crop selection, planting the fields and grazing the livestock—, on top of their own “time-consuming tasks, such as weeding, harvesting, post-harvest processing, water collection, and food preparation” (Mullaney, 2012, p. 104). In a similar way, evidence from Kenya and rural South Africa demonstrate that women and women-headed households are more likely to experience food insecurity because women depend more on agriculture to guarantee household levels of food provision, while men, on the other hand, have more access to other forms of income (Kassie *et al.*, 2014; Tibesigwa & Visser, 2016).

Belli *et al.* (2025) posit that there exists a correlation between violent conflict, climate change and child malnutrition. Their study in north-eastern Nigeria, an area vulnerable to droughts, rising temperatures and severe food insecurity, has demonstrated that fragile agrifood systems, together with limited infrastructures and formal safety nets, are the cause of a chain reaction: heat stress on the planet over time stresses food systems: as crops fail and household incomes fall, the youngest and most vulnerable are often the first to show signs of distress and become malnourished. As a consequence, the social strain of malnourished communities can become a powerful driver or justification for engaging in violence as a desperate alternative source of income and safety. Food insecure individuals may be increasingly inclined to support or be recruited by armed groups to ensure food security, shelter and physical protection (Belli *et al.*, 2025). Their findings perfectly align with the Frustration-Aggression Theory (Dollard *et al.*, 1939) which argues that, when an individual is hindered from achieving their needs and aspirations—in this case food and safety—the resulting frustration can manifest as aggression. Expanding this theory by highlighting the

mutual interaction between climate stressors and existing social inequalities (Ishola & Luginaah, 2025) in SSA is particularly insightful as it adds another layer of complexity and understanding to the causes and the consequences of food insecurity in the region and the persistent burden put upon women for ensuring household food security in situations where their very own nutritional well-being is impaired.

From a FPE perspective, the mounting environmental stressors, compounded with violence in conflict affected areas, demonstrate how the resulting consequences are far from being gender-neutral. Indeed, women's bodies are the first terrain where climate and violence-related food insecurity are evident, leading to the hunger of female members of households, which are the first ones to be expected to absorb the effects of external shocks. Nonetheless, women still carve out spaces of agency, autonomy, solidarity and care which sustain the survival of their communities. Ishola & Luginaah (2025) highlight the coping mechanisms elaborated by women to deal with situations of food shortage in conflict-affected areas other than reduction of their own food intake. For instance, women reported resorting to rationing strategies, to borrowing money from relatives, activating community support networks such as informal church groups to share food provisions, and diversifying their skills and livelihoods.

All of these strategies are examples of de Certeau's (1980) "*arts de faire*", everyday tactics of resistance, resilience and adaptation employed by Sub-Saharan women to circumnavigate structural constraints and guarantee the food security's pillar of stability. With their "*arts de faire*", women reshape the boundaries of the spaces of power in which their own nutritional well-being and the one of their communities are jeopardised. I argue that these creative strategies of challenging scarcity challenge victimhood narratives of women as passive in the face of crisis, because, although it is true that they are the most affected in times of crisis —environmental, health and political—, they also stand at the forefront as agents of transformation, "making do" in constrained environments through practices of care. Drawing on Turner *et al.*'s (2018) definition of food environments, women's creative strategies to guarantee food security are attempts of reshaping the "*external domain*" which dictates the "world of opportunities and constraints that are 'out there' within a given context" (p. 95).

The global community blueprint for tackling the deepest challenges of our times, encapsulated in the 2030 Development Agenda, is here relevant as it provides a framework for the analysis of the intersections and the synergies between the alleviation of poverty (SDG 1) and hunger (SDG 2), promotion of gender equality (SDG 5), resilience for climate change (SDG 13) and achievement of peace (SDG 16, notably target 16.1 "reduce violence everywhere"). Progress in one domain, especially in food security, is dependent and inextricably linked to action in the other domains: "failing to address nutrition for everyone, and particularly for women and children, undermines the success of all the SDGs" (Baye, 2017, p. 138). Hunger cannot be achieved without gender equality to guarantee equal food access, which in turn cannot be guaranteed without meaningful climate action to improve the resilience of agrifood systems, which, lastly, cannot be stable and reliable if undermined by both weather hazards and violent conflicts.

4.1.2 Gendered Struggle for Democracy Within the Home

Women have always been the first agents of care at the household level, as they bear the responsibility of producing, preparing, managing and provisioning food. Their contribution

becomes even more essential in subsistence agriculture in SSA, as they possess embodied knowledge, transmitted through generations, regarding local crops and seasonal cycles necessary for maintaining the food security of their household. Disruption of agrifood systems due to environmental stressors and climate-induced degradation, violence, land grabbing activities and much more, seriously threatens women's ability to sustain the nutritional well-being of their households. These external pressures not only limit food availability but also compound and intensify gender inequality in access to productive resources.

It has to be noted that it is not the absolute absence of resources limiting women's capacity to ensure household food security. The issue is rather the limited agency and decision-making power to mobilise such existing resources capable of positively transforming Sub-Saharan foodscapes, *i.e.*, the spaces where food is acquired, prepared and talked about (MacKendrick, 2014). Rural women's experiences and relationship with the environment through embodied knowledge, defined as "the type of knowledge where the body knows how to act" (Tanaka, 2011, p. 149), allows for a heightened and unconscious understanding of the land they cultivate, of the seasons and food cultivation adequate practices. However, their understanding of seasons and soil have been dismissed, undervalued, excluded from external multiscale processes such as development processes, and are now threatened by climate-induced phenomena.

At the household level, the decisions that compromise women's nutritional well-being, such as eating last and least or sacrificing their own food intake for other members, are very often the same decisions undermining the overall nutritional status of the household eventually, due to malnutrition negatively affecting agricultural productivity because of fatigue and exposing children, since pregnancy, to health risks. It is here worth elaborating on how the lack of an enabling environment stems from a deeper structure of inequality primarily manifested at the household level. The dichotomy of public and private conceals the political nature of domestic spaces with its underlying power structures that govern access and control of resources. The household is far from being just a private sphere of care and cooperation: actually, it is the very first site where interpersonal inequalities are felt and reproduced, because "to argue that family is distinct and private also ignores its powerful influence in socializing its members" (Binion, 1995, p. 520). It is a "laboratory of democracy" (*ibid.*, p. 520), a space where its members learn how power is negotiated, embodied and contested in a "struggle for 'democracy within the home'" (Jacobs, 1996, p. 41).

Women experience inequality through their most intimate space, *i.e.*, their bodies, due to hunger, fatigue and disproportionate burden of household care. These inequalities are reinforced and intensified by household dynamics that prioritise others' needs above women's under notions of care or sacrifice, thus "implying that such a gesture is not reflective of choice and will, rather the perfect embodiment of a woman's 'natural' role" (hooks, 1990, p. 45). Therefore, the household can be analysed through the lens of foodscapes to highlight the "relational nature of food provisioning strategies that can be constrained by the built environment" (Hammelman, 2018). The household level thus represents the first interpersonal scale in which women's contribution to food security is contested within the broader picture of structural constraints of the built environment in which gendered hierarchies are normalised and perpetuated across generations.

4.2 Intergenerational Hunger: Maternal Nutrition and Child Malnutrition

It is not only gendered hierarchies that are perpetuated across generations, but also the consequences of maternal malnutrition. Indeed, these gender-related dynamics within the household do not remain confined to women's bodies, as they ripple through other bodies, shaping the health and nutritional outcomes of their children. When maternal health is marginalised, the consequences are severe, because they reverberate on the health of younger generations, which constitute the lion's share of SSA's current population. SSA's high rates of malnutrition, together with fragile health infrastructure, especially in rural environments, exacerbate the effects of maternal malnutrition, resulting into impaired child development, given that the mother is the only source of nutrition for the infant during pregnancy and then through exclusive breastfeeding during the first six months of life (Zewude *et al.*, 2024). The 2021 UNICEF Report on Maternal Malnutrition emphasises the way in which maternal nutrition, notably during pregnancy and breastfeeding, is a critical determinant of offspring health, influencing the outcomes of the first 1,000 days of life, a pivotal period for the shaping of cognitive and physical development of children. Healthy foetal growth and early child development require healthy, adequately nourished, educated and empowered women with enough resources to be able to care for themselves and their children (Baye, 2017).

It is against this backdrop that poverty, especially in rural areas, further aggravates nutritional well-being, because poorer women are less able to meet the nutritional requirements of pregnancy and lactation and "to afford the opportunity cost associated with additional rest" (DeRose *et al.*, 2000, p. 532) due to the required agricultural labour in subsistence agriculture. Moreover, given that women are the main responsible for cooking in the household, smoke from wood fires or other fuels employed for food preparation especially in rural contexts exposes them to indoor pollution, therefore damaging maternal and child health (Baye, 2017). The nutrition of women and their offspring is also undermined by lack of clean water which increases the risk of contamination of food and intestinal diseases, causing diarrhoea and intestinal infections which lead to nutrient loss and malabsorption (*ibid.*).

A mother's ability to adequately nourish herself before pregnancy and nourish her child during and after pregnancy depends on her capabilities (Sen, 1999) which are dependent upon social, economic and environmental factors. This means that when she lacks access to a nutritious diet, clean water, income and healthcare infrastructure, the health of the offspring is jeopardised, regardless of her intentions or her knowledge on nutritional well-being. Nevertheless, it has to be noted that knowledge and education do play a relevant role in child nutrition. As Zewude *et al.* (2024) underscore in their research in Ethiopia "illiteracy, rural residence, a lack of prenatal dietary advice, household food insecurity, and low dietary diversity score were significantly associated with undernutrition during pregnancy. Interventions should focus on educating the public and helping families access food or supplements they need through local markets, health systems, and community-based support, as undernutrition is caused by numerous interconnected causes" (p. 1).

The food security pillar of access is crucial in these circumstances in SSA, because even if food may be available, the lack of income or other impediments such as restricted mobility or autonomy may result in children going hungry. In this respect, evidence from Uganda demonstrates that schools' meal programs such as Food For Education (FFE) reduce rates

of anaemia in adolescent girls and improves future generations' nutrition status: "the impact on adolescent girls has policy relevance because anaemia is a significant public health problem for adolescent girls who need to enter their reproductive years with an optimal iron status" (Adelman *et al.*, 2019, pp. 664-5). Adolescent girls are likelier than boys to be food-insecure, and the gap between male and female members of severely food insecure households is fairly large, hence "suggesting that households strive to protect boys from the ill effects of food shortages" (Taylor *et al.*, 2017, p. 6).

Adelman *et al.* (2019) found that school feeding and take-home ration programs reduced anaemia prevalence among adolescent girls, underscoring the importance of ensuring adequate iron status before pregnancy. Women have special nutritional vulnerabilities such as iron-deficiency anaemia, widespread among women in developing countries and leading to high levels of maternal mortality (Kent, 2002). These school meal programs also increased school participation, thus creating a virtuous cycle of improved education and nutrition. As the World Food Programme (2022) highlights, "healthy and well-nourished schoolchildren learn better, have a greater opportunity to thrive and fulfil their potential as adults, and increase their earning potential" (p. 2). Moreover, "the dynamic interaction between health, nutrition and education is one of the driving forces for developing the human capital that drives shared prosperity" (*ibid.*, p. 2), thus emphasising the interconnections between SDG 2 (zero hunger), SDG 3 (good health and well-being) and SDG 4 (quality education).

4.2.1 Globalisation's Domino Effect: Interconnected Crisis, Supply Chains and Childhood Hunger

The path towards shared prosperity envisioned by World Food Programme (2022) is threatened by the dual crises of climate change and conflict, which disrupt agrifood systems, displace populations and destroy infrastructure across SSA, leading to an increase in child malnutrition (Otokpa *et al.*, 2024). It is important to remember that it is not only the conflicts in Sub-Saharan countries that jeopardise food security in the region. Otokpa *et al.* (2024) underline the devastating effects of the ongoing conflict between Russia and Ukraine on child nutrition. Indeed, Ukraine and Russia are two major suppliers of food and fertiliser globally and the war has significantly disrupted these supply chains, especially in SSA. "This disruption has led to increased prices for critical commodities, further exacerbating food shortages and inflation in many countries. The resulting impact on vulnerable populations, particularly children, has been severe, with heightened risks of malnutrition and mortality in some regions" (*ibid.*, p. 2).

What these dynamics highlight is that "*rain does not fall on one roof alone*", further demonstrating that SSA's challenges are not isolated: interconnected global systems of trade, economy and geopolitics are deeply embedded in local realities. This is why wars fought thousands of kilometres away are able to severely affect the nutritional status of a child in rural Gambia or Cameroon. Mullaney (2012) argues that this represents the flip side of globalisation: the hallmark of globalisation is that money, information, people and commodities are travelling across greater distances at increasingly fast rates, but, on the other side, this "time-space compression" (Harvey, 1989) of the globalised world leads the most vulnerable groups, notably women and children, to risk being left behind. It is in this respect that Mullaney (2012) observes that in addition to the cultural prejudices and forms of

discrimination that operate primarily on a local scale, gender inequality works on a global scale to constrain and further disempower those who are least privileged.

The inequalities in agrifood systems in SSA are intensified by such external shocks, in the face of which rural populations have limited control in our interdependent world: “gender inequalities will persist if we think of such injustices as a Third World Woman’s problem and fail to consider how we (and our development projects) all contribute to the creation of unequal power structures” (Mullaney, 2012, p. 103). Hence, SSA’s nutrition crisis is not a regional anomaly but a very evident symptom of global fragility. Disruption of supply chains and agrifood systems, economic shocks and political upheaval do not care about national borders and their consequences are most felt by those on the margins, *i.e.*, women and their children in rural communities.

It is against this backdrop that I argue that the role of women is at the forefront as a transformative one if surrounded by an enabling environment. Their nutritional status directly influences the nutrition of their household, notably of their children, and as Quisumbing *et al.* (1995) argue: “protecting female nutrition status is important in providing a head start for children’s nutritious status”. It is a strategic imperative for creating the conditions for women to be well-nourished, empowered and supported in their strife against malnutrition and hunger for themselves, their families and their communities. In Shiva’s (2009) words, “women-centered agriculture is the basis of food security for rural communities. When the household community is food secure, the girl child is food secure. When the household and community is food insecure, it is the girl child who pays the highest price in terms of malnutrition because of gender discrimination. When access to food goes down, the girl child’s share is last and least” (p. 25).

4.3 Land as a Site of Gender Inequality: Women’s Marginalisation in Land Ownership

As for now, I have long discussed how poor nutrition, conflict and environmental hazards constrain rural women’s possibilities of tapping into their full potential and be the agents of development towards food security in SSA. Now, at this point of my research, it is necessary to delve into the systems of the structural constraints governing land tenure regimes in order to better understand which are the multiscalar forces hindering women’s full contribution to agrifood systems. By drawing on some insightful examples and commonalities from different countries in SSA, I seek to reveal how inequalities in land tenure rights represent a significant hurdle in rural SSA.

Rural women in SSA face what Hendriks (2002) calls “the unfair burden”: despite their critical role in food security and their massive contribution at all stages of the agrifood system, a number of barriers layered across multiple and intersecting scales do not allow their complete recognition. From household to institutional barriers, exacerbated by the shocks of global and environmental forces, women feel and live the consequences of such barriers embedded in everyday life experiences. Hindered access to land, credit, mobility, technologies and decision-making power are some of the manifestations of multiscalar scales of power and control which govern their lives. These constraints are the key to unpacking how structural inequalities, notably gender inequalities, permeate rural contexts in SSA and influence women’s pivotal labour in agrifood systems.

The most relevant component of women's structural barriers is constituted by women's land rights in SSA. What is land for rural Sub-Saharanans? Pellizzoli and Rossetti (2013) claim that in African societies land has always been "*un elemento fondamentale e preservarla sia stata una delle priorità fondamentali per le comunità. I rapporti tra l'uomo e la terra riguardano tanto la vita concreta quanto quella spirituale. Essa costituisce un simbolo di continuità con il passato che lega le comunità ai propri antenati, ma anche di sostenibilità affinché possa sfamare le generazioni future*" (p. 141). Therefore, land is a matter much more complex than a mere means of production. It is also the terrain on which multiscalar power processes shape resource access and control according to the "critical variable" of gender (Rocheleau *et al.*, 1996, p. 4).

According to Jacobs (1996), land operates as a "powerful symbol of 'community' and of 'family' solidarity and culture" only for men, since "women, as (usually) unequal members of families may be subsumed within them" (p. 35). That is why Kone and Ibo (2009) explain that "*en droit traditionnel, la femme est incorporée à l'héritage; elle fait partie des biens susceptibles d'être transmis par héritage*" (p. 16) leading to the mainstream assumption that in the household's hierarchy the woman is "*marginalisée, subordonnée et cantonnée dans la région des «choses»*" (Droy, 1990, p. 16). Hence, in the context of the small-scale agricultural systems in which the majority of rural SSA is involved, male domination of land and of women seems to be both 'natural' and logically consequential. Therefore, issues of control over land are directly related to the nexus of kinship, gender and sexuality in household dynamics (Jacobs, 2014; 1996).

After the discussions on the importance of agriculture for rural populations and how it is predominantly performed by women across the region, at first glance it would almost seem paradoxical that the "majority of rural men and women in this region do not actually own the land that they live on and farm, and which provides their livelihoods" (Knapman & Sutz, 2015, p. 1). According to the World Bank (2018), research about gender gaps in property ownership in 28 Sub-Saharan countries highlighted that under 13% of African women, aged 20-49 years, claimed sole ownership of land, compared to 36% of their male counterparts. The respondents of the survey were not asked to explicitly distinguish between legal and customary land tenure systems. However, it can be assumed that the majority claimed ownership based on customary norms, given that not more than 10% of the total land area of SSA is subject to formal statutory entitlement and women are the majority of land users (but not owners) under some form of customary regulation (Fonjong, 2016).

The answers of the World Bank's survey (2018) on perceived ownership of land reflect the complex and diversified context of SSA, in which legal frameworks coexist and overlap with customary land tenure systems and the arrangements governing land tenure vary tremendously within and between Sub-Saharan countries. For the sake of this research, I will be referring to customary land tenure as "the systems that most rural African communities operate to express and order ownership, possession, and access, and to regulate use and transfer" (Alden Wily, 2011, p. 1). The norms of customary tenure stem from and are sustained by the community rather than the State or State law, *i.e.*, statutory land tenure (*ibid.*). Simply assuming that customary land tenure systems always discriminate against rural women in SSA is a shallow statement which does not take into consideration the diverse nature of Sub-Saharan countries and their cultural and historical background. Nevertheless, where gender inequalities around land governance are present, they are related to women's capacity to hold and inherit land tenure rights, to women's lack of

involvement in decision-making processes and to gender discrimination in sociocultural and political relations (*ibid.*).

4.3.1 Behind the Family Man: Household's Gender Exclusion in Land Tenure Rights

First and foremost, gender inequalities governing land tenure start at the first interpersonal scale, *i.e.*, the kinship relations in the household. Jacobs (1996) argues that it is through land reforms and land inheritance processes that it is possible to illuminate gender relations within family structures and processes. It is in this perspective that I posit that the scale of the household not only interacts vertically with other scales —such as customary norms, domestic land tenure legislation—, but also horizontally within the household's members. In other words, it is not only one component of the household constituting a structural constraint, but rather the different horizontal relationships in the same scale constituting a compounded barrier. In male-dominated societies, women face opposition about land tenure rights by their fathers, brothers —especially the older one—, and husbands, all of whom hold authority in the household space.

Thus, the household becomes a space (Massey, 1994) constituted not only of a single structure of constraint but of a web of relationships within the household. In this space, power over women is both deeply relational but also multidirectional, stemming from multiple sources, often simultaneously, compounding with the vertical sources influencing tenure systems in which, according to a mainstream logic, *“la femme n'intervient pas comme vecteur d'organisation sociale: elle disparaît derrière l'homme, père, frère ou époux”* (Droy, 1990, p. 16). Ultimately, the household structural exclusions are the manifestation of the unequal distribution of power, what Kabeer (2005) describes as the *“ability to make choices”* (emphasis in text, p. 13). The ability to make choices directly influences the organisation and the hierarchies in agrifood systems in which *“la gestion du territoire (rapports fonciers, tenure des terres, mode d'exploitation) est une projection spatiale des rapports familiaux”* (Droy, 1990, p. 19). Similar mainstream views of gendered relations in SSA do not consider that *“ciò che si evoca non è semplicemente un “accesso” alla terra, che mai era stato negato, bensì un'altra forma di relazione che implica due cose: la possibilità di rappresentare un pezzo di terra nella forma astratta di un appezzamento misurato e certificato dalle istituzioni pubbliche, e l'autorizzazione a farne merce acquistabile e vendibile su un mercato fondiario”* (Pellizzoli & Rossetti, 2013, p. 9).

Analysing land tenure systems among the Senufo and the Agni in Ivory Coast, Koné and Ibo (2009) come to similar analysis of household power dynamics, stating that women's discrimination in land tenure systems is to be explained by the fact that *“au sein des groupes domestiques, on distingue entre les aînés, qui contrôlent les ressources foncières, et les cadets et les jeunes, dont l'accès à la terre est souvent difficile. Il en est de même également entre les intérêts des hommes et ceux des femmes. La femme ne peut hériter de biens (matériels et fonciers) ni en tant que fille du défunt, ni en tant que nièce et encore moins en tant qu'épouse car ce sont les frères qui constituent le premier ordre d'héritier et il n'y a aucune vocation successorale entre époux. La femme est donc doublement marginalisée”* (p. 16).

Running the risk of land passing out of the line of patrilineage constitutes a severe threat in male-dominated societies. Women's status and rights to land are directly linked not only to gender-related authority of male household members over women, but also to the gendered division of labour. It is in this perspective that Droy (1990) states that, given the

preponderance of subsistence agriculture as the main source of livelihood, social relations too are organised around this activity, since *“toute société doit assurer, pour se perpétuer, la reproduction de ses cellules de production, c’est-à-dire se reconstituer selon des normes qui par leur capacité productive ou reproductive, préservent un rapport organique entre ses membres”* (p. 11).

For instance, Doka and Monimart’s (2004) research on the position of women in farmland dynamics in Hausa households in southern Niger observe that “the process of excluding women corresponds to the need to readjust or find a social balance between a resource and its potential beneficiaries”. They found that “where land is plentiful, women have access to it and enjoy their land heritage”, but, conversely, when land “starts to become scarce (no free land) and societal control begins at farm level, there is a perceptible change in the portion of land granted to women, who progressively lose access to land. Inheritances are still shared out according to *Shari’a* (Islamic law), but the woman’s share is given to her brothers and returned to her if she divorces” (pp. 10-11). Furthermore, it is important to remember that in many Sub-Saharan societies “rural decision-making around land at family level usually takes place orally, and there is no written evidence of transactions” (Knapman & Sutz, 2015, p. 2), a situation which can make women’s claims over land easily dismissed when such claims rely on informal transactions and oral land negotiations.

I reckon that women’s exclusion from access to land observed by Doka and Monimart (2004) stemming from a need to expand control over land and women could be seen as a pattern, a symptom of a ‘natural’ response to external shocks. In the face of the current numerous wicked problems challenging Sub-Saharan livelihoods, this exclusion is to be interpreted as a structural reaction to periods of scarcity and uncertainty. Where rural land becomes a contested site, be it due to environmental stressors, conflicts, rapid population growth, LSLAs and more, women’s access to that land is often the first element to face opposition. Sub-Saharan women are among the first targets of such uncertainty and vulnerability to external threats hampering the availability of land, especially for subsistence farming, the main source of livelihood of the majority of rural dwellers. When arable land becomes scarce, the availability and the access to food provisions become scarce too. As a result, the scarcity negatively ripples through women and children at the community level because they are the first members to risk food insecurity in periods of food shortage.

When women’s contribution to food production and provisioning becomes pivotal for the survival of the household in times of shock, women are also the same ones being dispossessed within interpersonal unequal structures with fragile protection from land tenure systems and from global economic pressures. This structural reaction to scarcity not only highlights but also reinforces the patriarchal control over the limited resources available to maintain the equilibrium of the structure. It is in this perspective that I argue that it is essential to tackle the question of structural barriers with a multiscalar lens, as it is only by examining the convergence of exclusion —at the household level and the community level—, and the disrupting global pressures —from climate change to LSLAs—, that the issue of food insecurity in SSA reveals its complexities and its nature as inextricably linked to gender and politics.

In SSA customary law represents an important scale of structural constraint in regulating women’s access and control over land even where formal legal frameworks restrict on paper the power of discriminatory customary norms (Jacobs, 2014; Budlender & Alma, 2011). The

urgency of dealing with such inequalities in land rights has long been in the mind of Sub-Saharan policy makers. In 2009 the African Union (AU) pledged to achieve a target of 30% of documented land rights to women by 2025. However, this ambitious target has not yet been met (International Land Coalition, 2025) —and none of the AU's countries are on the right track to meeting it—, further demonstrating how customary barriers to women's land ownership require further analysis within a broader perspective. The global community too, during the creation of the 2030 Agenda for Sustainable Development, acknowledged the need to secure land rights for women to foster gender equality and ending poverty. However, without a thorough understanding of the differentiations in land tenure security among women in SSA such goals run the risk of not being met (Chigbu *et al.*, 2019).

In Senegal, for instance, a World Bank (2024) report claims that although protection against gender discrimination in land tenure rights is explicitly mentioned in the Constitution, *“les pratiques traditionnelles et les normes patriarcales limitent souvent l'accès des femmes à la terre”*. This fact is backed up by statistics that demonstrate that *“les femmes au Sénégal représentent 70% de la main-d'œuvre dans le secteur rural, mais seulement 6% d'entre elles possèdent des terres agricoles”* (*ibid.*, p. 1). An analogous situation prevails in Ivory Coast where *“le poids des traditions viens encore accentuer les difficultés rencontrées par les femmes dans leur activité agricole”* (Affessi, 2017, p. 2), underscoring how patriarchal norms exacerbate women's access to land, credit, mobility and technology. Despite the presence of a land tenure framework which allows women to benefit from land tenure rights, women are marginalised by customs hampering their access, control and appropriation of land (*ibid.*).

Koné and Ibo (2009) explain that this opposition to women's land tenure rights stems from the traditional norm that states that a woman cannot own land, as her role is the *“mère nourricière”*, the primary caregiver in charge of cultivating the husband's land for subsistence farming but never having the right to actually own the land, not even after the husband's death. Indeed, according to the tradition, *“les femmes ont seulement un droit d'usufruit de la terre et doivent demander de la terre à leur mari ou leur famille”* (Affessi, 2017, p. 2). This explains the reasons underpinning the low levels of female-owned lands found in Kone and Ibo's (2009) research: only 5% of women among the Agni and 30% among the Senufo owned land.

This situation leads to women not fully benefiting from land reforms aimed at redistributing land to individual households. Moreover, in these processes of land redistribution widows or divorcees are usually ignored, as the traditional head of the household is identified within male household members. In addition, wives may experience additional pressure from male family members and external bodies to raise production on the new land. “Wives in rural smallholdings are more likely to be classified as 'housewives' by land reform programme planners, regardless of their actual contribution to farming” (Jacobs, 1996, p. 38). In Koné and Ibo's (2009) analysis in Ivory Coast that same pattern of misrecognition of women's land rights is observed once women are left widowed: *“quand l'époux décède, c'est cette plantation qu'elle aura créée ou aidé à créer, qu'elle surveillera jusqu'à la maturité de ses enfants de sexe masculin si elle en a eu: c'est la surveillance ou gérance de terre comme mode d'accès car la femme n'a traditionnellement pas droit à l'héritage de biens fonciers”* (p. 19).

Similarly, Jacob's (1996) research in northeastern Zimbabwean resettlement areas illustrates the impacts of land reform on women and it concluded that women were left out of the allocation process because the land went to household heads while "a very small proportion of widows and divorcees with children gained land titles" (p. 39). Hampering the ownership of land in heritage matters is a critical structural barrier, given that heritage is one of the main forms of land right ownership. In countries such as Senegal, land tenure rights via heritage constitute 61,8% of all land tenures in the country (World Bank, 2024).

Other government-led land initiatives such as formalisation through statutory land tenure systems disproportionately affect women as they can actually deepen gender inequalities in land tenure instead of promoting equal land rights and autonomy. Formalisation programs, often promoted as the best way to guarantee tenure security, bring to light how these initiatives, when not planned inclusively as a concrete legal safeguard, further exclude marginalised groups such as women through not only informal but also legal dispossession. Indeed, the main beneficiaries of such programs are elite male landholders, thus reinforcing patriarchal control over land (Lokhandwala, 2022). Moreover, Lokhandwala (2022) highlights how there may be further shortcomings from both ends of formalisation processes: if on the one hand African governments often lack the administrative capacity to deal with formalisation procedures, on the other hand, marginalised groups may be deterred by the cost and the perceived complexity of the procedure.

The resulting dynamics of these unequal gender relationships in land tenure brings about situations in which "*le rapport entre les hommes et les femmes autour de la terre inclut souvent des rapports d'assujettissement, de conflits ou de dépendance*" (Affessi, 2017, p. 11). It is this dependency that constitutes a critical stumbling block to the pathway to empowerment and development of rural SSA. However, it is important here to avoid general statements and remember that rural populations need to be understood in relation to their broader social contexts, considering gender, age, class and the other identities shaping their relationships with others. Therefore, gender relations are not always underlined by negativity, conflict of interests and dependence (Pellizzoli & Rossetti, 2013).

If women's roles as food providers are necessarily filtered through male-dominated decision-making processes at multiple scales, this means that their autonomy and ability to invest, access to credit, enhance productivity through technology and mobility are restricted and rendered stagnant. It is here worth reminding that there exist nuances to the participation of women to decision-making processes about land, for example, as Droy (1990) states: "*en Afrique, souvent la femme âgée, après avoir démontré ses qualités de vraie femme (bonne épouse et mère féconde) accède à l'univers des hommes et en est écoutée avec attention*" (p. 17). Moreover, the decisions that are made often reflect the interests and needs of those with whom they have interdependent relationships (Pellizzoli & Rossetti, 2013).

This dependency does not only result in the difficulty in fighting malnutrition and hunger in the region, but it also naturalises and crystallises gender power dynamics, perpetuating exclusion cloaked as tradition and customs. The gendered division of labour —productive and reproductive—, is therefore reinforced by both institutional and cultural dimensions. Traditions and customs are a significant layer of symbolic constraint which assumes a static nature of gender roles and social hierarchies, especially in rural communities. This apparent immutability perpetuates the idea that women's roles belong to the reproductive sphere,

despite the reality in SSA and in other rural *milieus* in which women are at the heart of agrifood systems, from agricultural labour to food provision and preparation.

Moreover, it is worth emphasising that customary land tenure regimes are not necessarily traditional, as they often have been reshaped by colonial land tenure policies in anglophone and francophone SSA (Alden Wily, 2011). However, Alden Wily (2011) also argues that such regimes have been so greatly affected both during and after colonialism that it is difficult to determine the extent to which changes in customary land tenure have been internally or externally driven, also given the influence of religious land tenure systems regulated by the *Shari'a* in Muslim rural communities. Nevertheless, legacies of widespread land acquisition during colonialism, compounded with customary patriarchal land regimes and now, pressures from the forces of the global markets, exacerbate women's precarious access to land for subsistence agriculture.

4.3.2 Land as a Commodity, Women as a Collateral

The individual, household and customary scales converge and interact in the wider system of structural constraints on women's contributions to agrifood systems in SSA. An interconnected web of external forces operates beyond rural SSA, dictating and influencing rural women's lived experiences. As previously discussed, at the national scale, government policies promote more gender-neutral land rights in their legal frameworks and initiatives notwithstanding the scarce results in tackling the structural roots of household and customary land tenure systems. The issue of land is central to agriculture, because it dictates not only the livelihoods of millions of rural communities in SSA but it is also a pivotal means of production for national economies.

It is in this perspective that promises of economic development and foreign exchange earnings often underpin national agricultural policies towards prioritisation of cash crop cultivation for export, therefore reallocating land from subsistence farming to market-oriented production. Cash crops are defined as the agricultural commodities mainly grown for sale and profit. Examples of cash crops grown in SSA are coffee, tea, cocoa, cotton, oilseeds, sugar cane, oil palm, date palm and rubber (Priyadarshan *et al.*, 2022). In contrast, crops of rural subsistence in SSA are defined as staple food crops and they include cereals, rice and maize. This shift from staple food crops towards cash crops cultivation to generate income and stimulate national economies results in two main consequences. First, it severely undermines food security in exchange of income, jeopardising women's and children's nutritional well-being. Second, it intensifies gender inequality because the income generated by cash crop farmers is typically controlled by men and not evenly distributed across household members. Meanwhile, women are left with increased work burdens due to diminished access to resources such as land for food crops and income (Taylor *et al.*, 2017). In this regard, Fonjong (2016) notes that "when a crop becomes commercial, it changes gender and becomes a man's crop, as it is men who control its production, marketing, and, most importantly, the use of income accruing from its sale" (pp. 60-1).

Furthermore, while national policies often reorient land use towards cash crop production, large-scale land acquisitions (LSLAs) further intensify this phenomenon by transferring control of land to external actors, frequently eroding women's access to food-producing land. The commodification of land and crops by corporate and State-backed actors in the region often disregards local food needs and reliance on food crops, water and fuel sources and frequently displaces women and their communities from communal lands. This

dispossession results in women being trapped in poverty, further exacerbating their vulnerability to food insecurity (Fonjong, 2016). Sacrificing subsistence agriculture and transforming land without adequate policies, protection and support puts at risk the livelihood of millions of rural poor in SSA (Alden Wily, 2011). Evidence from Oxfam (2013) suggests that LSLAs' disruption of food crops often pushes women into precarious forms of paid agricultural labour with limited possibility of negotiating fair wages. The phenomenon of LSLAs exposes profound power asymmetries both vertically and horizontally: on the one hand, global market forces alienate rural global communities from their lands, on the other, women are disproportionately affected by the "masculinization of agriculture" (Shiva, 2009, p. 24). Even though land investors often claim that land deals are advantageous also for the local community, as the phenomenon could stimulate both socioeconomic development and off-farm employment, notably for women, these claims are often far from rooted in the reality of rural Sub-Saharan women (Fonjong, 2016). Women, routinely excluded from negotiations and compensation schemes, cannot access none of the supposed benefits of land acquisitions from external actors. Structural barriers such as illiteracy —around 37.9% of women aged 15 and above in SSA are illiterate (World Bank, 2023) —, limited formal education, lack of training, limited access to financial and legal services, bring about women's difficulty in engaging with land tenure norms to challenge the systems that directly affect their livelihoods.

I posit that the framework of food sovereignty is particularly relevant here, as it brings to light the importance of control and power by the local communities. LSLAs severely undermine the pillars of food sovereignty, notably the first pillar which "rejects the proposition that food is just another commodity or component for international agri-business" and the fourth pillar which "rejects the privatisation of natural resources through laws, commercial contracts and intellectual property rights regimes" (Declaration of Nyéléni, 2007). The transfer of control over land and resources from local actors to foreign actors undermines local autonomy, erodes biodiversity and disrupts sustainable agrifood systems of local populations. The convergence of these external forces —global market forces, climate change, LSLAs and inadequate policies protecting women's rights— creates a system of built-in depressors in which, even if women are expected to fulfil their roles as "*mère nourricière*", they remain sidelined from both the dining table and the decision-making table where land, livelihoods and power are negotiated. Restricted access to secure land tenure, both customary and legal, limited technology and training to increase productivity and capital are the consequences of a multiscalar systemic exclusion of women in rural agrifood systems. This exclusion severely jeopardises women's dignity, autonomy, well-being and economic independence. As highlighted by the International Land Coalition (2025), the exclusion of rural women from land governance is a severe stumbling block to the region's goals for food security, climate resilience and inclusive development.

Final Considerations

In this chapter I discussed the multifaceted constraints of rural women in SSA. I elaborated on the interconnections between hunger, poverty, conflict, health and climate change to dissect how malnutrition in SSA is a multifaceted issue which encapsulates issues of land, conflict, gender inequality and global market forces. The aim of this chapter was not to portray rural women as helpless passive victims of external forces but to demonstrate the

ways in which women's role of custodians of land, resources and biodiversity (Shiva, 2009) is hindered and how their embodied ecological knowledge and household resilience are foundational to potential agrifood development.

Rather than reinforcing essentialising tropes of rural women in SSA, I explored the way in which dominant frameworks intersect with the realities of rural women's agency, everyday practices of resistance, bringing about a more nuanced understanding of how rural development is deeply dependent on nutrition, gender and land tenure. In the next chapter, the case study of the project *Debo Bamtare* in the villages of Aram and Kenene in Senegal illustrates how rural women, when given the enabling conditions against the structural constraints here discussed, can reclaim their spaces and roles as stewards and agents of transformative change in agrifood systems.

CHAPTER 5 – Case Study: the *Debo Bamtare* Project in the Villages of Aram and Kenene, Saint-Louis Region, Senegal

Introduction

This chapter presents the case study of the project *Debo Bamtare* in the villages of Aram and Kenene, in the Saint-Louis region in the north of Senegal. The case study is informed by my fieldwork experience in Senegal during the 2024/25 edition UNI.COO mobility project promoted by the University of Turin. By discussing the critical role of women in the intervention, I aim at demonstrating how women's involvement in development projects can serve as a major catalyst for transforming rural agrifood systems in SSA.

The *Debo Bamtare* project was implemented with the aim of responding to persistent problems related to food insecurity and child malnutrition. The rural areas of Aram and Kenene were characterised by limited access to agricultural resources and a lack of information on adequate nutritional practices. These structural factors contributed to the chronic vulnerability to malnutrition, especially of children aged 0-59 months. The project's focus on three strategic axes, namely access to agricultural activities, community education and income-generating activities (IGAs), enabled the populations of Aram and Kenene to access new productive resources, training, as well as economic opportunities aimed at improving their living conditions. In addition, training and community education activities ensured better knowledge on the topics of malnutrition and finally, IGAs ensured an improvement in economic conditions.

Through the analysis and discussion of the project *Debo Bamtare*, I posit that the creation of an enabling and supportive environment for women through careful gender-sensitive and transformative and territorially-aware development planning and implementation has the potential to radically transform rural food environments, increasing food security and significantly decreasing child malnutrition. First and foremost, in order to provide a geographical context of the project, I focus on the Sub-Saharan country of Senegal. Secondly, I offer a more detailed overview of the project *Debo Bamtare* and of the actors involved. Lastly, I analyse and discuss the implications of the project informed by my fieldwork research and relying on relevant academic literature to demonstrate the pivotal role of women in Aram and Kenene's agrifood systems.

5.1 Country Analysis: Senegal

The Republic of Senegal is a West African country located in the far west of SSA, bordered by the Atlantic Ocean to the west, Mauritania to the north, Mali to the east, Guinea and Guinea-Bissau to the south and it almost surrounds The Gambia. The country covers an area of about 196,722 km² and is characterised by great geographical and cultural diversity, ranging from the arid Sahel of the north to the greener regions of the south. Senegal, as many of its Sub-Saharan neighbours, registers a high population growth rate, 2.3% in 2025, and it has a population of nearly 19 million (Worldometer, 2025). The majority of the population, 52.6% (World Food Programme, 2024), lives in urban areas, mainly concentrated in the capital Dakar and its surroundings. Senegal is divided into 14

administrative regions, each headed by a State-appointed governor. Each region is subdivided into departments, districts, municipalities and rural communities.



Fig. 5.1. Administrative Map of Senegal. (Source: *Le GéoPortail du Sénégal*. (2021).

Senegal has been a democratic presidential republic since its independence from the French colonial empire in 1960 and its political system is inspired by the French model. In March 2024, Bassirou Diomaye Faye won the presidential elections, succeeding Macky Sall, who had governed the country since 2012. Sall's tenure has been marked by political tensions, including the controversial postponement of elections originally scheduled for February 2024, which has led to protests and criticism of democratic governance. Despite these challenges, Senegal continues to distinguish itself as one of the most stable countries in West Africa (World Food Programme, 2024), given that since its independence in 1960, it has never experienced a military coup, making it an exception in SSA, a region often marked by political instability.

The Senegalese economy is largely based on agriculture, which accounts for about 16% of GDP and employs about 30% of the working-age population (U.S. International Trade Administration, 2023). Despite the importance of the agricultural sector, Senegal faces structural challenges that compromise the food security levels of its rapidly growing population. National agricultural production remains mostly insufficient and poorly diversified, based mainly on subsistence crops such as groundnuts, millet and rice. The country's high dependence on food imports, with about 70% of the country's food needs covered by imported products (*ibid.*), exposes Senegal to fluctuations and shocks of the global markets.

Furthermore, agriculture suffers from limited access to mechanised and modern systems and a lack of infrastructure for storage, processing and irrigation in a climate characterised by seasonal rainfall. In addition to the fragile agricultural inputs, the effects of climate change are seriously aggravating this situation, causing prolonged droughts, floods and irregular rainy seasons. Lately, rapid population growth and accelerated urbanisation are enormously increasing the country's food demand. Inequalities in access to land (World Bank, 2024) and technical training, especially for women and youth, significantly delay the development of sustainable subsistence agriculture capable of guaranteeing food security in Senegalese rural families. According to the World Bank (2023), rural households have an 80% probability of falling suddenly into poverty due to unexpected shocks, namely global market fluctuations or environmental hazards such as drought episodes. Moreover, 50.8% of the population in

Senegal is multidimensionally poor and 18.2% is classified as vulnerable to multidimensional poverty (UNDP, 2023).

Despite poverty affecting half of the population and being disproportionately distributed among rural populations, high unemployment and illiteracy rates, Senegal is “on track to graduate from the category of least developed country by 2027, in part thanks to an average growth in gross domestic product of 6% between 2011 and 2018. While graduation is a source of great pride, it also means a loss of preferential trade arrangements and reduced United Nations core funding allocations” (World Food Programme, 2024, p. 3). This discrepancy between official statistics and the lived realities of the Senegalese population is also reflected in the Global Hunger Index Report (2024) which ranks Senegal among the countries with a moderate level of hunger with a score of 15.3, a significant improvement from previous years, in which the country was placed among the countries with an alarming GHI (The Borgen Project, 2025).



Fig. 5.2. Senegal - GHI Country Profile. (Source: GHI, 2024).

The aggregate data of the GHI does not represent the disparities in food security in Senegal, especially across the rural areas, where the highest rates of food insecurity are concentrated. The GHI's levels, based on child stunting, wasting and undernourishment, fail to capture the vulnerabilities faced by rural communities, such as poverty, climate hazards, weak infrastructure and inadequate agricultural inputs. According to the Global Hunger Index Report (2024), about 4.6% of the population is undernourished, 17.5% of children under five are stunted, 10.2% of children under five are wasted, and 3.7% of children die before their fifth birthday. Despite the moderate levels of hunger in the urban areas, hunger in Senegal is still a critical issue and it “predominantly exists in rural areas, with women and children affected the most” (The Borgen Project, 2025). In regions like Matam, Kolda and Tambacounda, the high levels of poverty, erratic weather patterns due to climate change and limited infrastructure and poor agricultural yields contribute to the region's hunger crisis. Ultimately, while the GHI data are useful for a macro-level geographical analysis, it is necessary to further question and dissect the statistics to bring to light the depth and importance of agrifood systems in Senegal.

5.1.1 The Saint-Louis Region and the Municipality of Madina Ndiathbé

Located in the northern part of Senegal, the Saint-Louis region occupies a strategic position on the border with Mauritania and it is crossed by the Senegal River, a vital resource for local economic activities. This region, historically marked by commercial fishing and agricultural activities, includes the department of Podor in which the villages of Aram and Kenene are located. The local population of the region, composed predominantly of young people, depends on family farming and animal husbandry which are the two pillars of the rural economy. The main crops include rice, millet, maize and vegetables. In socioeconomic terms, the poverty rate in the Saint-Louis region is estimated at 39.7%, slightly lower than the national average of 46.7% and agriculture contributes to about 50% of the production of the regional primary sector and 11.4% of the regional economy (Humanities Across Borders, 2019).



Fig. 5.3. Map of the Saint-Louis region. (Source: *Gifex;cartes du monde entier*, 2025).

However, low mechanisation, high input costs, limited access to agricultural land and increasingly recurrent climatic hazards significantly reduce productivity, leading to precarious and unpredictable food security for the local population. Despite the presence of the River Senegal, access to drinking water and irrigation water remains a major challenge. Water infrastructure, which is often ageing or insufficient, slows down agricultural development and seriously limits the resilience of populations to climate change. Tensions between local populations over water management increase, especially during dry periods, when agricultural, domestic and pastoral needs frequently compete. The seasonal rural exodus, especially of young people, reflects a lack of local opportunities and a high vulnerability of rural populations to environmental and economic shocks. The region's Sahelian climate, marked by a short rainy season and increasingly elevated temperatures all year round, further accentuates drought and water stress. Flooding events are becoming increasingly frequent in the region. For instance, in 2024, in the department of Podor, more than 16,000 hectares of agricultural land were submerged, directly affecting the livelihoods of more than 200,000 people and worsening the food situation of nearly 250,000 inhabitants (*Le Monde Afrique*, 2024).

It is in this perspective that development activities in the Saint-Louis region focus on improving food security, sustainable management of natural resources, adaptation to climate change and strengthening access to basic services. The development of climate-resilient family farming is a major focus of intervention, with the introduction of resilient and sustainable agricultural techniques aimed at improving productivity by reducing vulnerability to drought, flooding and soil degradation. For several years, the Saint-Louis region has benefited from development efforts aimed at strengthening food security, promoting more resilient agriculture and consolidating the livelihoods of rural populations.

Significant efforts also have been made to expand irrigation through the use of sustainable solutions to increase agricultural productivity while preserving water resources. Furthermore, drinking water supply projects have increased the availability of water in rural and urban areas, improving public health and the quality of life of the populations (OMVS, 2013). Through projects aimed at improving production systems, sustainable management of natural resources and responding to the effects of climate change, local actors and their partners have laid the foundations for a more inclusive development of the region towards food security.

The Saint-Louis region, particularly the department of Podor, is facing particularly worrying food insecurity rates. The main causes of this insecurity are low soil fertility, significant post-harvest losses, inadequate infrastructure for the conservation and processing of agricultural products, as well as climate variability that strongly affects agricultural productivity. In response to this crisis, many regional projects have been carried out in the field of food and nutrition security (*Agence de Presse Sénégalaise*, 2023), aimed at strengthening agricultural production, access to food and the nutritional resilience of vulnerable households. The Saint-Louis region still remains under surveillance and continued efforts are required to address the structural causes of food insecurity in the area and build the resilience of rural communities.

5.1.2 Area of Intervention: The Villages of Aram and Kenene

The village of Aram is located in the municipality of Madina Ndiathbé, in the Jeejengol area. Aram's population is a traditionally rural community mainly composed of women and youth, whose main livelihoods are fishing, agriculture and livestock. According to the *Agence Nationale de la Statistique et de la Démographie* (2023), the village of Aram hosts 2,376 residents. Crops are grown along the banks of the Doué River, a left branch of the Senegal River. The inhabitants cultivate land located at a certain distance from the village, in a more fertile area close to the river. The main traditional crops are rice, millet and sweet potatoes. However, access to these fields remains very complicated. The river represents a natural barrier, which can only be crossed by artisanal canoes, which complicates the use of suitable agricultural equipment. This constraint severely limits the villagers' ability to develop effective agriculture, thus compromising their food security. A dynamic women's association is active in several areas, alongside the *Association pour le Développement du Village d'Aram* (ADEVA), a local actor committed to the development of the territory.



Fig. 5.4a, 4b, 4c, 4d. Views from the village of Aram. (Image by the author, April 2025).

Just three kilometres away from Aram there is the village of Kenene, created by a group of fishermen who came from Aram and settled further north on the other side of the river for their fishing activity. Kenene is a small and isolated village difficult to access with a population of 468 residents (ANSD, 2023). Indeed, only all-terrain vehicles or traditional carts can make part of the way, then completed by canoes to cross the river. Fishing remains the main activity of the inhabitants, and as in Aram, the arable land is located beyond the river, with the same logistical difficulties and similar consequences. Precariousness is even more significant in Kenene, because isolation considerably aggravates food security vulnerabilities. Moreover, while the village of Aram does have a small health post, albeit with limited medicines and diagnostic tools, the residents of Kenene must travel to Aram for primary healthcare, facing further logistical barriers, such as poor road access and river crossing even during health emergencies. Four local associations are present in Kenene, representing women, men and young people, illustrating the social commitment of organisations in the village to tackle the particularly harsh and unfavourable living conditions.



Fig. 5.5a, 5b, 5c. Views of the Doué River from the village of Kenene. (Image by the author, April 2025).

5.2 The *Debo Bamtare* Project

Debo Bamtare is a development project by the NGO APDAM (*A Proposito Di Altri Mondi*) located in the villages of Aram and Kenene, in the municipality of Madina Ndiathbé, Saint-Louis region, in northern Senegal. The name of the project, *Debo Bamtare*, means "woman, vector (or catalyst) of development" in the Pulaar language, spoken by the Fulani people, the main ethnic group in the Saint-Louis region. The title of the project highlights the central role of women in the socioeconomic dynamics for community transformation. As in

the rest of the Sub-Saharan region, in Senegal women farmers constitute the majority of the agricultural labour, they produce over 80% of food crops but they rarely own land (The Borgen Project, 2025).

The project officially started in January 2022 with a duration of 36 months and has benefited from a three-month extension, postponing its initial closure from January 2025 to April 30 2025. The project was financed by the Presidency of the Italian Council of Ministers thanks to the 8x1000 share of the IRPEF (Italian tax on personal income). The main objective of the *Debo Bamtare* project is to strengthen the food security of local communities, in line with the UN Sustainable Development Goals (SDGs), in particular SDG 2 (zero hunger), SDG 3 (good health and well-being) and SDG 5 (gender equality).

Given the vulnerability of the Saint-Louis region to food insecurity, together with the related constrained access to agricultural resources, income diversification and awareness of adequate nutritional practices for food security and against malnutrition, the project *Debo Bamtare* adopts an integrated and horizontal approach that promotes synergy between key development sectors and the active involvement of local actors, increasing the resilience of rural populations and supporting family farming.

5.2.1 Actors Involved

For the making of the project many partners have been mobilised, both at the community and institutional levels. Together, these actors worked towards the shared goal of improving the living conditions of rural populations through targeted, territorially-aware, gender-sensitive and inclusive actions, in direct response to the food, environmental, health and social challenges of the region. Here is a detailed overview of the actors involved:

- APDAM (*A Proposito di Altri Mondi*) is a NGO founded in 2011, active in Italy and several Sub-Saharan countries, including Senegal, Guinea and the Democratic Republic of Congo. In Senegal, APDAM focuses its efforts in the regions of Saint-Louis and Matam, where it works to improve the living conditions of rural communities through targeted interventions. The organisation is committed to the fight against malnutrition, targeting its structural causes such as food insecurity and poverty. Its actions in these regions focus mainly on the development of sustainable agriculture and the strengthening of the capacities of local producers. By supporting community-based initiatives and promoting resilient agricultural practices, APDAM contributes to the economic empowerment of populations and local food security.
- The *Association pour le Développement du Village d'Aram* (ADEVA) is a local organisation committed to the development of the village of Aram, intervening in the economic, cultural, health, educational and sports fields. Within the framework of the project, it actively contributes to the implementation of activities by facilitating relations with the local community, access to places of intervention, as well as the logistical and organisational coordination of activities and field missions.
- The *Conseil National de Développement de la Nutrition* (CNDN) is a key player in the implementation of the project, thanks to its nationally recognised expertise and active involvement in several similar initiatives in the region. With its experience in community education and its in-depth knowledge of local stakeholders, the CNDN ensured the coordination of community awareness sessions, the selection of trainers, as well as the acquisition of the necessary equipment for the running of activities and post-training follow-up.

- The municipality of Madina Ndiathbé played a decisive role in the development of the project in the two targeted villages, facilitating the installation of activities and their implementation throughout the intervention period. Its involvement has strengthened collaboration between local authorities, village communities, the lead organisations and local partners, from the planning phase to the end of the project.
- The villages of Aram and Kenene have been actively involved in all stages of the project, from design to evaluation, providing not only their human commitment and great enthusiasm, but also essential support in the implementation of the activities. As for the local authorities, they have made available their expertise, local knowledge and experience in community development, therefore contributing significantly to the outcomes of the *Debo Bamtare* project.
- The *Programme d'Urgence de Modernisation des Axes Territoriales Frontaliers* (PUMA), is a program of the Senegalese State and it was directly involved in the implementation of the activities as a local partner of the *Debo Bamtare* project. Given its experience in the field of agriculture, infrastructure and skills transfer, PUMA coordinated training courses involving the inhabitants of the villages of Aram and Kenene and carried out the construction of the bridge to facilitate communication between the two villages. Thanks to the construction of the bridge, local communities are now able to reach a particularly fertile area used for agricultural production and enables Kenene, as well as the neighbouring villages over the Doué River, to break out of their isolation.

5.2.2 Debo Bamtare's Three Axes of Intervention

Specifically, the project employs a three-pronged approach aimed at strengthening the resilience of the local communities of Aram and Kenene against the challenge of food insecurity, by promoting more inclusive and sustainable rural development. The three closely interconnected strategic axes constitute the pillars of an inclusive approach which aims to create a development model that is both sustainable, equitable and deeply rooted in local dynamics. By placing women at the heart of this three-pronged strategy, the project recognises and values their fundamental role as agents of change, capable of strengthening social cohesion, driving economic initiatives and sustainably improving the living conditions of their communities.

The first axis focuses on improving access to agricultural activities, aiming to enable inhabitants to leverage available local resources to the fullest through a sustainable family farming approach. Although located in the pre-desert Sahelian zone, Madina Ndiathbé's land has the potential to become fertile provided it is supported by an adequate irrigation system. Before the intervention, access to the fields was limited due to the lack of suitable infrastructure and an efficient irrigation network. To tackle this issue, the project provided for the construction of a bridge co-financed by the PUMA in order to facilitate access to arable areas, the reorganisation of the irrigation system from the Doué River and the training of farmers, mainly women, in modern and efficient agricultural and poultry techniques through the provision of adequate agricultural equipment.

The irrigation system is built for the fields dedicated to subsistence family agriculture located near the villages of Aram and Kenene. The system, elaborated by an *équipe* of experts, supplies water to the various plots of land, drawing it from the nearby Doué River and

feeding it into a network of channels which extend throughout 159 hectares of agricultural land.



Fig. 5.6a, 6b. Shots of the irrigation system after the project. (Image by the author, April 2025).



Fig. 5.7. Paddy field in Aram and Kenene's agricultural land. (Image by the author, April 2025).

As far as the training activities are concerned, 25 women aged between 32 and 65 from the villages of Aram and Kenene participated in the project activities organised by PUMA trainers. The participants were provided with skills in animal maintenance and animal enrichment techniques, animal feed procurement and preparation, equipment management such as drinking troughs and feeders and the use of veterinary products. Furthermore, the women learned techniques for producing crops with high nutritional value, such as the *niebé* (a variety of bean), maize, *Moringa Oleifera* and sweet potatoes. Moreover, the trainers

provided techniques for soil preparation, tilling, ploughing and grazing and techniques for sowing, fertilisation, weed and pest control, harvesting and post-harvesting.

The second strategic axis focuses on community education targeted towards the women of the villages and it aims at strengthening the awareness of local populations on the issues of nutrition, healthy and diversified diets and the prevention of malnutrition. The community education focuses on the use of local hyper-nutritious foods such as the *Moringa Oleifera*, advice for the preparation of balanced meals, early identification of signs of malnutrition and good hygiene practices for health and food security in all its pillars.



Fig. 5.8. Cooking demonstration of the preparation of a hyper-nutritious infant food by a member of the *Coopérative Debo Bamtare*. (Image by the author, April 2025).

25 women from the villages of Aram and Kenene participated in the CNDN community education sessions (specifically, 20 from Aram and 5 from Kenene). First and foremost, CNDN trainers demonstrated the hygiene rules to be followed for techniques for transforming various products such as melons, carrots, turnips, pumpkins, sweet potatoes, *pain de singe* (baobab pulp) aubergines into jams and preserves. Secondly, techniques of cereal processing were illustrated. The trainers built upon women's knowledge on how to prepare corn and millet couscous, *thiakry* (sweet couscous) from millet, *arraw* (rolled millet flour) and enriched flour. Moreover, numerous techniques of transforming local products for the preparation of juices and sirops were shown and later prepared with the trainees: ginger syrup and juice, red and white *bissap* (hibiscus), *pain de singe* and jujube. In addition, women were supported in refining existing recipes also for the preparation of ginger sweets and processing dairy products such as sweet yoghurt and cheese.

It is insightful to highlight how the project activities, notably the training course on agricultural and poultry techniques and the community education sessions were planned in a participatory manner in order to engage with local knowledge, therefore acknowledging the pre-existing skills and using them as a stable base to build upon. In the community

education sessions, for example, when women prepared *bissap* and processed dairy products, the aim of the project activity was not to teach new skills, but instead valorising, formalising and amplifying the knowledge on those existing practices. This type of project activity reflects a more epistemologically sensitive and aware approach that recognises women's expertise in the transformation of agrifood products and practices. It is in this perspective that the project acted as a catalyst for empowerment, in the sense that it engaged with and valorised pre-existing local knowledge rather than just transferring new knowledge to women in a top-down and paternalistic logic. According to Kom and Nethengwe (2024), local knowledge in African agrifood systems is a critical component for the achievement of food security and sustainable development. Indeed, respecting local epistemologies in development interventions strengthens agrifood systems, given the heightened cultural relevance, sustainability and the community's ownership of such practices.



Fig. 5.9. *Coopérative Debo Bamtare's syrups.* (Image by the author, April 2025).



Fig. 5.10. *Coopérative Debo Bamtare's processed cereal products.* (Image by the author, April 2025).

Finally, the third axis is dedicated to the creation of income-generating activities (IGAs), in order to stimulate the local economy and reduce family poverty. To this end, an Economic Interest Group (EIG) was created, composed of 250 women from the two villages of Aram and Kenene, called *Coopérative Debo Bamtare*. This community group allows women to develop IGAs such as selling transformed and processed local food while reinvesting part of the profits in collective projects. The project developed and equipped a 15-hectare plot of land for cultivation for the *Coopérative Debo Bamtare*, together with an initial stock of agricultural inputs such as phytosanitary materials for the care of the crops and a stock of seeds for the first harvest. Furthermore, the EIG has now at its disposal agricultural machinery, notably a tractor and an initial stock of equipment to carry out agricultural activities bought on the local market such as hoes, scythes, shovels, spades and rakes.

In order to increase the land available for the EIG to support their entrepreneurship efforts, the 15-hectares plot of land of the *Coopérative Debo Bamtare* was expanded to 30-hectares throughout the project. More importantly, this land was formalised through statutory land tenure and legitimised by the village authorities. According to Agarwal (1994) this collective women land arrangement can reduce the risk of poverty, poor soil productivity and equality and empowerment if the rights to the land are secured and guaranteed through effective use, management, control and decision making-making power. The recognition of the collective women's land by the institutions of the villages of Aram and Kenene, together with the access to fertile and irrigable land, new tools and technologies, creates an enabling and supportive environment in which women's endeavours can be adequately valued.





Fig. 5.11a, 11b, 11c. Close ups of *Coopérative Debo Bamtare*'s processed cereal products. (Image by the author, April 2025).

In order to ensure the self-sufficiency and autonomy of the EIG a training course, as well as the necessary equipment, were provided. An office for the *Coopérative Debo Bamtare* was set up and furnished with desks, computer tables, filing cabinets, office accessories, laptop and a desktop computer to enable beneficiaries to improve their administrative capacity. The PUMA digital training course involved 3 young women selected from the *Debo Bamtare* project. They were taught the functioning of the computer and the Windows operating systems, how to scan and print documents and basic skills on the OfficeSuite such as creating slides on Microsoft PowerPoint, data collection on Microsoft Excel and documents on Microsoft Word. Furthermore, another PUMA training course was administered to 7 women of the *Coopérative Debo Bamtare* on the topics of financial and administrative management of small and medium-sized enterprises (SMEs) and the development of a business plan. During the courses on financial management tools, the women of the EIG were taught accounting skills to administer cash registers, invoice books, and payment receipts for the IGAs. Lastly, the PUMA courses demonstrated the steps for the development of a business plan through technical, financial and profitability analysis of the project and market analysis, in order to explain to participants how to develop a successful business idea.



Fig. 5.12. Member of the *Coopérative Debo Bamtare* processing millet into flour with the mill purchased by the project . (Image by the author, April 2025).



Fig. 5.13. Member of the *Coopérative Debo Bamtare* packaging their products. (Image by the author, April 2025).

5.3 Women's Role in the *Debo Bamtare* Project

During my fieldwork experience in the villages of Aram and Kenene, I observed the ways in which women are at the heart of rural agrifood systems and food security. Through their active involvement in the project's implementation, they are the real driving force behind the positive outcomes of the project *Debo Bamtare*. First and foremost, the main aim of the project to reduce food insecurity and child malnutrition through the improved agricultural technologies, community education and IGAs, was made possible and dynamically fostered by women in the villages who contributed with their creativity, enthusiasm, energy and deep local knowledge.

In the training courses and community education sessions, women took the lead as active and participative actors to the project and assimilated and appropriated the content of the courses to amplify shared traditional techniques. Their role extended beyond the project's expectations, as they not only shared the content of the courses with other members of the community, but also mobilised other women to take part in the villages' transformation. The women's dynamic engagement in the project activities was evident and recognised by the other members of the community, underpinning their solid commitment to the project's activities.

These considerations are backed by my final evaluation report of the project drafted for the NGO APDAM during my UNI.COO mobility project promoted by the University of Turin. The data constructed stemming from the analysis of the logical framework indicators are now revisited and discussed in the light of the thesis. The overall analysis of the results obtained in the *Debo Bamtare* project highlights tangible and concrete positive effects on the nutritional, agricultural and socioeconomic levels in the villages of Aram and Kenene. Based on the results of the project together with relevant literature, I focus on the discussion of women's role in the project reflecting on the impact of the activities implemented on the reduction of child malnutrition and the role of the training courses on agriculture, husbandry and management tools.

5.3.1 Child Malnutrition Reduction and Reimagined Community Foodscapes

First and foremost, the low prevalence of severe forms of child malnutrition, combined with exclusive breastfeeding and adequate adoption of complementary feeding, indicates a significant improvement in the nutritional status of children, notably aged 0-59 months, in the villages of Aram and Kenene. This progress reflects the global health guidelines about the importance of the first 1,000 days of life, a critical window of opportunity to secure optimal development and growth that covers the period of pregnancy up to the second year of life. According to WHO (2013) this period is extremely critical as it is the time in which growth faltering starts to occur, specifically between 6 and 12 months of life "when foods of low nutrient density begin to replace breast milk and rates of diarrhoeal illness caused by food contamination are at their highest" (p. 22). After the age of two years old, reversing stunting (low height for age) becomes more difficult, thus underscoring the value of early interventions such as *Debo Bamtare*. Moreover, in this regard, Konczacki (1972) claims that early child malnutrition has severe consequences not only for intellectual capacity and physical growth but also for behavioural development and individual's motivational-attentional disposition, which means that the affected child performance, in school for example, "will never be on the level of those who enjoyed adequate nutrition in infancy" (p. 436). It is in this perspective that the information shared through community

education sessions, together with traditional knowledge, was pivotal for the maintaining of exclusive breastfeeding for the first six months, the appropriate integration of complementary foods for children aged 6-23 months and the regular follow-up visits at Aram's Health Post.

Secondly, it is important to emphasise that collaboration with community health professionals has been essential to obtain reliable and up-to-date information on the nutritional status of the children in the villages of Aram and Kenene. These professionals made their registers available for the evaluation of the project and thus made it possible to accurately document cases of child malnutrition and any links with the actions carried out within the framework of the project. The results obtained reflect a good awareness of mothers through sustained support by Aram health post and the good restitution of the content of community education by the *Relais Communautaires* (RECOs), *i.e.*, the women community health volunteers. Furthermore, the reduction of child malnutrition demonstrates a significant impact of awareness-raising actions and a real appropriation of the knowledge transmitted in the daily practices of women and their households in the villages of Aram and Kenene, improving not only the nutritional well-being of children but also of the other members of the household.

Lastly, it is worth highlighting several elements that clearly testify the positive impact of the activities carried out. Indeed, the monitoring notebooks kept by the RECOs during the 36 months of the project confirm the regular and documented participation of many women in restitution activities, not only in the targeted villages of Aram and Kenene, but also in more remote hamlets outside the project's direct intervention perimeter, therefore demonstrating how the population not only appropriated but also shared the information on the prevention of malnutrition and on how to prepare and preserve food.

Therefore, this level of community engagement, coupled with the active mobilisation of women RECOs, suggests that the dissemination of knowledge has been broader and more informal than quantitative tools could have been able to measure. Thus, such dynamism reflects a significant and lasting dynamic of change within the targeted communities and beyond, responding to the need of improving nutritional practices, since usually, Konczacki (1972) argues, "apart from the customs and taboos which may represent the "wrong" kind of knowledge, there is only too often a complete lack of knowledge of the proper dietary need" (p. 439). Moreover, I posit that the implementation of culinary demonstrations of nutritious recipes with local ingredients contributed to the creation of new local food environments as built spaces that are influenced by the sociocultural environment in which they are embedded (Downs *et al.*, 2020) and sustained by food sovereignty principles as they strengthen "the right of peoples to healthy and culturally appropriate food" (Declaration of Nyéléni, 2007, p. 9).

Hence, community education sessions can be interpreted as new parts of the villages' foodscapes, because these project activities opened the possibility of contributing to what Cervasco *et al.*, (2023) consider as one of the core elements of foodscapes, *i.e.*, "continuous coevolution of landscapes, actors, and biocultural processes linked to food ingredients, products, dishes, as well as their attached sociabilities" (p. 11). Community education sessions became the places and the spaces where food was prepared, talked about and new meanings were attached to food (MacKendrick, 2014). These foodscapes were later expanded throughout the duration and beyond the project through the restitution sessions of the RECOs and the informal dissemination of knowledge by women to their sisters, co-wives, mothers, neighbours and other members of the community. Ultimately, community

education activities expanded and fostered new spatial and social networks and practices between the two targeted communities and beyond.

5.3.2 Agricultural Training for Transformation: Shaping Agrifood Systems and Spaces

The implementation of training courses as a strategic axis of the project *Debo Bamtare* responds to the need of including rural women in areas of informal education, notably the training related to agricultural labour and animal husbandry, from which women have historically been excluded, exacerbated during the colonial period when women were not considered as farmers, and as such, “new technologies and new crops were introduced to men only” (Due & Summary, 1982, p. 159). Technical training courses on farming, poultry and product processing practices have been well assimilated, as highlighted by the high rates of active participation and knowledge application. Irrigation and agricultural machinery have led to a significant increase in agricultural production, with an improvement well above the project’s expectations. Together with the implementation of an efficient irrigation system, the introduction and access to agricultural technologies proved to be key elements for substantial improvements in agricultural productivity (Suri & Udry, 2022).

The creation of the irrigation system completely revolutionised the village’s agriculture resulting in a more resilient and reliable water supply for agricultural activities across plots. Moreover, on a national policy level, this modern irrigation technique is in line with other agricultural programs promoted by the Senegalese State for the management of the Delta of the River Senegal, as both initiatives aim securing and strengthening agrifood systems to enable year-round production and facilitating the resilience and adaptation of agriculture in the face of the country’s food security requirements, especially in times of climate and economic shocks (Garambois *et al.*, 2018).

In Aram and Kenene the totality of the households reported an increase in their agricultural production, except for one household, which experienced a slight decrease due to exceptional family circumstances (unrelated to the project). On average, households in Aram and Kenene reported a 169% increase in production, reflecting not only the effectiveness of the technical training received, but also improved production systems and better collective organisation of agricultural work. Indeed, the majority of the participants to the training course on agricultural and poultry techniques demonstrate assimilation and appropriation of the techniques. This increase, in addition to strengthening household food security, is an opportunity for economic diversification through the valorisation and sale of agricultural surpluses through processing, thus limiting post-harvest losses. Moreover, such a success in agricultural productivity has the potential to curb outmigration to urban centers, particularly among the youngest generations (Châtel *et al.*, 2014), thanks to the increased opportunities in processing agricultural products and the related IGAs.

Land transformation has been accompanied by concrete and major changes in livelihoods among rural women in Aram and Kenene, challenging essentialising assumptions that frame rural SSA as inherently traditional or resistant to change thus underscoring Droy’s (1990) assertion that “*la vulgarisation agricole est le principal vecteur de pénétration des nouvelles techniques dans un monde rural souvent considéré à tort comme figé et réfractaire aux innovations*” (p. 81). I posit that such transformation is to be understood as a ‘territorialisation’ of land, *i.e.*, the fact of becoming a territory which, in Dematteis and Governa’s (2005) words, is a “*mezzo per avere relazioni negoziali, cooperative, competitive, vantaggiose*” (p. 79) and the territoriality becomes the *ensemble* of the new socioeconomic

dynamics brought about by the project *Debo Bamtare* through which agricultural resources acts as a medium to shape, negotiate and navigate gender and community relationships (Dematteis & Governa, 2003 in Dematteis & Governa, 2005).

Rural women in Aram and Kenene therefore now shape their space (Massey, 1994) through new agricultural practices, reaffirming their traditional role as custodians of food security while simultaneously dynamically navigating new pathways for development, adapting and negotiating in new spaces of innovation and resilience. It is here worth highlighting that the introduction of new agricultural technologies is not to be understood as a disruption of traditional embodied knowledge but as a part of the same continuum because “*it is people, not place in themselves, which are reactionary or progressive*” (Massey, 1994, emphasis in text, 141). The role of local resources and indigenous knowledge, central to food sovereignty, has been recognised and mobilised throughout the project implementation, underlighting how farmers are not mere adopters of technologies but they are active agents that adopt and adapt knowledge and technologies (Tiftonell, 2014). In other words, it is the actions, the enthusiasm and the agency of rural women that shape the development trajectory of their agrifood systems and determine their critical role in rural food environments, as they are given the resources to influence “*lo spazio materiale e immateriale entro cui vengono prese le decisioni relative al cibo, come costruito da diverse variabili in relazione fra loro*” (Pettenati & Toldo, 2018, p. 129).

5.3.3 Supporting and Empowering *Coopérative Debo Bamtare*’s Entrepreneurship

The training course on management tools has also shown extremely satisfactory outcomes for the women of the two villages. Indeed, the totality of the participants succeeded in formulating a concrete idea for a micro-enterprise and were able to describe the modalities of starting an EIG. All the participants were able to formulate concrete projects rooted in the logic of developing local resources, demonstrating a strong desire to develop sustainable IGAs. The ideas developed, such as the processing and sale of sweet potatoes, local cereals and other products from the *Coopérative Debo Bamtare*, illustrate the direct and concrete impact of the project on women's economic empowerment and their ability to envision and “enhance their access to credit, markets and benefit from bargaining power in terms of input acquisition and getting support from government and prospective funders” (Oluwatayo & Ojo, 2016, p. 93).

Moreover, with collective land tenure, their ownership can strengthen not only bargaining power, but also foster solidarity, create a safety-net against poverty (Agarwal, 1994) and market shocks. It is also interesting to note that most of the participants proposed very similar business ideas, based on the processing and sale of local products such as sweet potato, millet or corn. This convergence of business plans shows good cohesion and coherence in the group, which reinforces the EIG’s development prospects and the sustainability of the results of the *Debo Bamtare* project.

It is in this perspective that I posit that women’s engagement in IGAs can be understood through the lens of space (Massey, 1994) by conceiving the activities of the *Coopérative Debo Bamtare* as a spatial intervention. Indeed, women’s opportunity to participate in wider markets with cohesion and coherence in a formalised framework, challenges mainstream assumptions about gender roles and reclaims the space and the visibility of women in economic domains. Thus, markets, cooperatives and new community networks are now occupied and redefined on new bases, shaped by renewed enthusiasm to develop local

value chains with shared socioeconomic objectives. In a context of informal rural markets, the predominant situation in the Sub-Saharan region, this spatial intervention is particularly impactful as it strengthens women's social capital and reshapes agrifood systems within the existing informal market structures.

In this regard, one of the elements that stood out the most to me during my fieldwork in Aram and Kenene was observing how women lived and experienced these informal spaces with dynamism and coordination. I witnessed the different phases of the creation of the *Coopérative Debo Bamtare's* local products and in each step, it was evident that every member operated within a shared understanding of the goals and a sense of purpose, demonstrating group cohesion and awareness of their critical role for sustaining the villages rural livelihoods through spatial spatial and economic reconfiguration. In the perspective of bell hook's renewal of political commitment to homeplace (1990), these new spaces can serve as extensions of homespace in which empowerment and resilience are mutually cultivated and supported.

Ultimately, the IGAs of the *Debo Bamtare* project demonstrate that investing in women in development projects in rural SSA by improving access to resources, training and decision-making spaces can bring about major improvements in agricultural productivity and food security for their communities. By strengthening and supporting their potential, agency and economic autonomy, thus creating a fertile ground for empowerment, such initiatives have the potential to create critical social and economic benefits, contributing to the fight against poverty, gender inequality and malnutrition in the Sub-Saharan region.

Final Considerations

The major improvements in land productivity, together with profitable IGAs and adequate training courses are instrumental elements for the reconceptualisation of the image of family subsistence farming, usually associated with poverty, given that the world's poorest are family farmers or herders with limited resources (Châtel *et al.*, 2014). "Family farming is above all a 'lifestyle', says Jan Douwe van der Ploeg, rural sociology professor at Wageningen University in the Netherland" (*ibid.*, p. 4), a lifestyle that is deeply embedded in social relations, embodied knowledge, traditional practices and relationship with the environment. This lifestyle could not be possible without the contribution of women as farmers and agents of change, empowered with the ability to make choices (Kabeer, 2005) to drive innovation in every phase of the agrifood system, from cultivation to processing and distribution towards food sovereignty.

Ultimately, the women of the *Debo Bamtare* project emerge as the principal agents of agricultural production and architects of the social conditions that allow the functioning of agrifood systems in Aram and Kenene. The project has reached and engaged most of the communities of Aram and Kenene, including men, whose inclusion was pivotal for the achievement and the consolidation of the project objectives. The strong commitment, participation and determination of the villages played a decisive role for laying the foundation for the development of rural agrifood systems through a gender-sensitive lens in which women could be empowered and given the enabling environment to truly fulfil their role as guardians of community food security.

The *Debo Bamtare* project has achieved its main objectives and it underpins the literature that asserts that agriculture interventions that invest in different types of capital (natural, physical, human, social and financial) are more likely to result in positive nutrition outcomes (Berti *et al.*, 2004). Especially in the context of child malnutrition, providing an enabling environment capable of sustaining nutrition for all, starting from pregnancy, has the potential to massively impact the future of new generations. Nutrition may not be the only determinant of human development, but it surely plays a paramount role in shaping its foundations: “personality is a complex creation, and the physical factor of diet is only one of the many elements affecting it” (Konczacki, 1972, p. 445).

When nutrition is insufficient and inadequate, it is a major root cause of developmental constraint that can ripple through generations. In SSA and many other regions of the world “the most under-utilised resource that can be used to combat malnutrition is women” (Kent, 2002, p. 48). It is following this logic that projects such as *Debo Bamtare* operate, reducing child malnutrition, improving food security, strengthening the socioeconomic capacities of rural women and improving nutritional practices through community education in rural SSA.

CHAPTER 6 – Towards Inclusive Agrifood Systems: Insights and Reflections from the *Debo Bamtare* Project

Introduction

The analysis of the case study of the *Debo Bamtare* project in the villages of Aram and Kenene, Saint-Louis region, Senegal, allowed me to deepen the insights on the intersections of gender, space and development. In this final chapter I build on the experience of the *Debo Bamtare* project to elaborate on the implications of women's participation in agrifood systems in development interventions in SSA employing a critical perspective. By doing so, I investigate the possible future trajectories of targeted interventions for inclusive agrifood system's development. Moreover, I discuss some policy recommendations based on the main challenges and lessons learned around the notion of women as agents of development in rural SSA, sustainability and resilience. Lastly, I stress the importance of territorially-aware, gender-sensitive and transformative approaches in development interventions in SSA, highlighting how such a heterogeneous region calls for context-specific and inclusive approaches to achieve long lasting change in agrifood systems.

6.1 Are Women Really *the* Solution? Discussing Instrumentalising Approaches to Development

As demonstrated by the case study of the *Debo Bamtare* project, the role of women in agrifood systems proved to be the key to decreasing child malnutrition and improving food security in the villages of Aram and Kenene. The analysis of the outcomes of the intervention engenders a series of questions regarding the implications of planning development projects targeted towards rural women, conceived as *the* agents of development.

First and foremost, I have long stressed during this research how “rural women in SSA” is not a category, given that women are not a homogenous group and there exists a great degree of diversity among rural women and the way in which they mediate “patriarchal conditions to circumscribe their productive and reproductive roles” (Britwum, 2022, p. 3). At the same time, it is impossible to deny rural women's collective contribution to agrifood systems in SSA. Despite their diversity and heterogeneity, there exists a case to be made for supporting their efforts through development interventions while simultaneously taking into consideration that it is necessary to overcome “*la rappresentazione delle donne come aggregato sociale omogeneo se si vuole raggiungere l'obiettivo di produrre un cambiamento trasformativo sostenibile*” (Pellizzoli & Rossetti, 2013, p. 37).

Given the contextual situation of Sub-Saharan countries such as Senegal, with complex challenges related to gender disparities and other external forces interfering with women's land rights, access to agricultural education, input access, technology adoption, land management and effective government subsidies (Faye *et al.*, 2025), investing on the development of women in agrifood systems, the main source of livelihood for millions of Sub-Saharans, may not be the ultimate solution, but is definitely a critical starting point. But are women really *the* solution?

There exists abundant literature cautioning against framing women as “agents of development” (Cornwall, 2016; Chant & Sweetman, 2012) as it runs the risk of bringing about instrumentalist development logics which value women as tools for development in household nutrition and agrifood systems, thus not addressing the structural barriers that hinder their agency and opportunities of empowerment in the first place. Women can surely contribute to the solution to Sub-Saharan wicked problems but framing them as the sole responsible for solving them does little to acknowledge their rights and individual aspirations. In my research I elaborated on the contributions and the complexities of women’s participation in agrifood systems; however, it is important to inscribe these complexities within intervention frameworks which support women roles in agrifood systems without putting on them the burden of solving development problems. Moreover, Crystal (2021) argues that focusing on women as a category, as recipients of development, reinforces reductive and misogynistic assumptions about gendered subjects, resulting in an overrepresentation in development messaging. Furthermore, it is worth remembering that, since the 2030 Agenda for Sustainable Development is currently responsible for dictating global development funding, intervention narratives revolving around women are more prone to instrumentalisation of rural African women, depicting them as the ideal vessels for development, thus attracting donor funding through SDG 5 on gender quality. When misogynistic assumptions about women, notably being more family and community-oriented, drive interventions in rural SSA, structural inequalities, notably the gender-based ones, are not properly addressed.

According to Lewin (2010), instrumentalising women for development objectives with the assumption that “they will in turn provide the answer to broader social development and poverty reduction” (p. 222) creates what she calls “cardboard women”, *i.e.*, empty stereotypes of women, stripped of real women everyday lives and their needs and desires. In the case of SSA, the rural African woman cardboard, portraying rural women as oppressed, bare foot, pregnant, target or beneficiary of development interventions (*ibid.*) needs to be replaced with more heterogeneous perspectives of rural lived realities. To counter these cardboard images means to change and challenge static and monochromatic images and propose alternative narratives that offer different depictions of African women, that resist misogynistic representations of vulnerability, fragility, dire need and lack of agency (Crystal, 2021).

In this regard, Gita Sen (1997) argues that “it is a short step from thinking of governments or agencies as ‘empowering’ people through programmes to viewing empowerment as another handout, something governments do for or on behalf of people. The danger here is that the focus will shift entirely to the provision of access to external resources, assets, or services, and away from methodologies that will create spaces for people to build confidence and self-esteem” (p. 3). Hence, it was by the creation of an enabling environment, choices and opportunities that individual and collective agency was fostered by women in Aram and Kenene, resulting in their empowerment. It is in this sense that Cornwall (2016) defines empowerment as “an expansion of women’s consciousness and capacity to act to transform their worlds. It is when women recognize their ‘power within’ and act together with other women to exercise ‘power with’, that they gain ‘power to’ act as agents” (p. 25).

In this perspective, I reckon that one of the strengths of the *Debo Bamtare* project was that the intervention was designed to distribute resources and foster more equitable decision-making power so that women’s participation could truly be transformative and not

merely instrumental. It is true that the main objective of the project was the reduction of child malnutrition, but women were not involved solely as vessels for nutritional knowledge. Instead, the project recognised women in relation to their rights, wants and aspirations, acknowledging the need for improved access to resources such as productive land, appropriate material, training opportunities and organisation of a formalised group of women to pursue collective projects. Throughout these processes, they empowered themselves by consolidating their roles as producers, aspirant entrepreneurs and critical actors of the rural agrifood system of the villages. In other words, it is the set of values and recognition brought about by the intervention that fostered their empowerment. Moreover, child malnutrition was not tackled in a short-term and 'quick fix' logic, but the approach was focused on creating the knowledge and the capacity to promote structural, self-directed and sustainable (Yamada *et al.*, 2022) change.

The diversity of the women in the villages of Aram and Kenene was recognised and valorised, transforming their heterogeneity into a successful element. This is embodied in the creation of the *Coopérative Debo Bamtare*, constituted of women of diverse ages and with different roles, which all together brought to the table their individual knowledge and skills to strengthen collective endeavours. For instance, the younger members with higher levels of literacy and formal education contributed by developing accounting skills to administer cash registers, invoice books and payment receipts during the project's management tools training. During my fieldwork research activities, I noted how among the research participants, only three women were able to conduct all the research activities directly in French, without the need for translation. For all the other respondents, communication required the intervention of a Pulaar-French interpreter to ensure that the questions and the answers were thoroughly understood. Therefore, the three French-speaking participants also played an active role in the interpretation process, supporting the research team during the interviews with the other women. Their dual language skills were a valuable asset, in that they facilitated the fluidity of exchanges and strengthened women's participation in the various stages of data construction.

On the other hand, older women contributed with their embodied knowledge of their land and environment, integrating new agricultural techniques to traditional practices. Therefore, by bringing together the complementary strengths of the participants, the activities of the project were able to foster collaboration and collaboration, not only between women, but men too. Indeed, if centering women is pivotal for securing rural livelihoods, it is equally necessary to acknowledge that tangible progress in rural agrifood systems in SSA is not a women's responsibility alone. Food security in the region is directly dependent on collective action of all members, from households to communities to international organisations. All these actors across scales need to be aware that "homogenous categories prevent nuanced and productive engagement with the individual, communal and national subjectivities that also determine welfare" (Crystal, 2021, p. 2). Thus, narratives essentialising rural women and men too —too often depicted as an obstacle to progress and gender equality— fail to account for the nuanced understanding of each reality, fostering binary gender representations that do not serve the locals' needs to achieve tangible progress. Moreover, such reductive categorisations of gendered subjects, notably male, narrow the possibilities for transforming gender itself rather than only specific subjects and the behaviours it produces (*ibid.*).

The gender-based approaches of the project *Debo Bamtare* would not have been as successful as they have been if the men of the villages of Aram and Kenene had not been involved through inclusive planning. Therefore, they have been considered and incorporated in the project as partners for their wives, sisters, daughters and mothers' empowerment. Their role helped to interrogate family structures and shared responsibility in household nutrition and health outcomes, notably for children. This perspective challenges and disproves mainstream development and white feminist narratives, in which "non-Western men are either underrepresented or portrayed as a "problem" for non-Western women in a manner that legitimizes the "civilizing mission" of women's empowerment through "saving brown women from brown men" (Spivak, 1988 in Crystal, 2021, p.3). Furthermore, is it also widely acknowledged that female empowerment requires a "*cambiamento della parte maschile responsabile delle oppressioni patriarcali. Inoltre, l'esclusione degli uomini può originare fratture sociali e un ulteriore irrigidimento dei ruoli della relazione binaria che proprio l'approccio di genere vorrebbe invece scardinare*" (Mosca in Bignante et al., 2024, p. 87). As a result, through the project a new social cohesion was found and a heightened community resilience to shocks was fostered to ensure that the benefits of the project's interventions are distributed throughout the villages, "leaving no one behind", but instead helping even the most disadvantaged men and women, to move forward collectively.

Hence, the project's impact for rural women in Aram and Kenene can be summarised in the concept of female empowerment: "*female empowerment* refers to increases in opportunities for women in contexts —ranging from access to or ownership of valuable assets to increases in mobility and personal decision-making— in which gender norms had previously limited or prevented their participation. The concept of empowerment is closely linked to that of gender equity; when situations become gender equitable (that is, men and women are given equal opportunities), empowerment of women can occur" (IFPRI, 2012, emphasis in text, p. 10). Empowerment is not *something* that can be done *for* someone and it is not only a strategic tool for positive project outcomes either. It is instead a process that starts from within to foster transformative change that values rights, agency and new voices. What development actors can do is support and sustain, create the conditions to foster empowerment as a process and not as a project outcome. Even with the empowerment of women, it would be superficial and unrealistic to attribute to women the burden for food security and efficient agrifood systems, since it would not take into considerations the external factors affecting food insecurity in the region on a multiscalar level. Instead of giving women the sole responsibility for achieving food security, more inclusive approaches in interventions such as the *Debo Bamtare* project would best achieve successful development outcomes. Ultimately, women are not *the* solution, but are definitely a part of the solution, because their empowerment and inclusion are paramount in supporting any meaningful and long-term development intervention.

6.2 Recasting Relationships, Rethinking Roles: The Potential of Women's Empowerment

The study of the *Debo Bamtare* project brings about deeper reflections on the nature of gender relationships in agrifood systems in SSA and informs possible future development trajectories. Gender-sensitive and territorially-aware interventions have the capacity to challenge a series of multiscalar dynamics in the Sub-Saharan region, notably in the

household, one of the first sites directly influencing the variables affecting individual nutritional well-being and household food security. Theoretically, through an increased access to resources such as land, technology, training and knowledge, women have the potential to revolutionise their role in agrifood systems. However, it is also essential to analyse the long-term impact and durability of such access through the lens of intra-household and community gender dynamics as it pertains to decision-making, agency and collective acknowledgement of such empowerment. For women's empowerment to be effective, it needs to entail an "expansion of women's consciousness and capacity to act to transform their worlds" (Cornwall, 2016, p. 25), which necessarily means recasting gender relationships, starting from the household to the community. In other words, empowerment means to challenge and modify the *status quo*, thus "*empowerment entails change*" (Kabeer, 2005, emphasis in text, pp. 13-4).

Such change can only be engendered if strategies to tackle structural gender constraints are taken into consideration in development interventions' planning to sustain long-term change. Project objectives thus need to be adapted in the light of traditional and cultural norms not in a way to perpetuate those that disadvantage women, but instead to find the cracks in between tradition and culture where women's agency can be exercised and valued. It is in this perspective that Hendriks (2002) states that "access to resources can only be achieved through transformation of cultural and societal attitudes, values and behaviour" (p. 56). Through this transformation women's empowerment can be sustained and their individual choices improved in the form of new aspirations, recognition of rights and needs and, most importantly, food security and nutritional well-being. Indeed, women's calorie needs may increase as their range of choices is expanded in their society (DeRose *et al.*, 2000).

To affect resource control, such as land, knowledge and technology, means to affect power, *i.e.*, the ability to make choices (Kabeer, 2005) and to expand choices in and outside the household. If gender-prescribed ideologies conceive the household as a marker and a maker of masculinity which creates a "male sphere with corresponding ideologies that define the hierarchical structure of the household" (Fongang, 2014, p. 27), changing the allocation of resources also entails a gradual redefinition of gender relations and recognition that such power is fluid and dynamic. In the context of the household power dynamics, specifically, social relationships within rural families cannot be recast if the family structure itself is not being called into question (Chatel *et al.*, 2014).

To build a new image of family subsistence farming is also to move beyond superficial perspectives of the household as gender-neutral and apolitical bodies and understand the ways in which these sites act as spaces of power, negotiation and contestation (Perry, 2005; Binion, 1995). Therefore, putting into question the role of the *borom keur* (master of the house in the Wolof language) does not mean breaking away from preserving the significance of work, tradition and the centrality of the family structure in rural agrifood systems in SSA. Instead, as argued by Chatel *et al.* (2014) it means to strive to rebalance and recast social relationships within the family.

Moreover, I posit that by foregrounding and valorising women's contributions in agriculture through interventions aimed and supporting their efforts, the organisation of the family could benefit in that it could create a new space (Massey, 1994) in which gender relations and roles can be co-constructed by negotiating on a more equitable ground. But what does equitable mean? In this regard, Sieveking (2007) stresses the need for contextualising

development concepts because “in contrast to the notion of equality, the concept of rights seems much more appropriate to deal with the prevailing social distinctions and hierarchies, characterising not only the gendered relations within the family, but also the communication between local, national and global development agencies” (p. 41). Her ethnographic work in Senegal is particularly insightful as it highlights the way in which the global concepts of gender equality need to be territorially-situated and articulated around the “notion of women’s rights based on the recognition of social inequalities [...] the main references for women’s negotiation strategies, shaping the everyday practices and forms of organisation, in which women build agency and networks for their social and economic activities” (*ibid.*, p. 44). It is in this perspective that Western development concepts, often informed by white understandings of womanhood, run the risk of imposing categories of identity in contexts in which gender may not be the most relevant identity, therefore “demanding others to conform to and mobilize along rigid and locally specific definitions of identity is a hegemonic practice that ignores local aspirations” (Crystal, 2021, p. 2). Therefore, as highlighted by Mosca in Bignante *et al.* (2024), the languages and methodologies employed in projects must necessarily be constructed with a thorough understanding of the contextual social and cultural codes that determine the concept of gender as a social construct. Without this awareness, “c’è infatti il rischio di riprodurre atteggiamenti coloniali e generare fratture e dissensi in seno alla comunità” (*ibid.*, p. 87).

Ultimately, both the roles of the *borom keur* and the *mère nourricière* can be re-imagined in continuity with traditional and cultural heritages but progressively adapted to changing rural realities. It is in this perspective that it is necessary for development interventions in rural SSA to translate positive development outcomes into durable structural changes by encouraging and fostering institutionalisation mechanisms. For instance, in the *Debo Bamtare* project, such mechanisms took the form of collective landholding, women’s cooperatives and women’s opportunities for training. These mechanisms both strengthen women’s spaces for agency and can act as a true catalyst for opening possibilities for structural change in rural agrifood systems able to transform relationships in and outside the household and guarantee more stable food security and female empowerment.

6.3 Discussing Policies and Approaches: New Lessons Learned, Old Lessons Applied

During the planning phase of a development intervention, what are the kind of policies that truly support rural women’s efforts in agrifood systems? In the case of *Debo Bamtare*, the project was planned following a series of gender-sensitive approaches, in the sense that through the acknowledgement of women’s involvement in agrifood systems, it catered to specific needs by providing resources, training and land in the form of a collective landholding owned by the *Coopérative Debo Bamtare*. It is true that these measures were not directly aimed at dismantling the unequal gender relations, but it is through these measures that new spaces were opened for women’s participation, involvement in decision-making processes and new opportunities, thus challenging gender relations. In this sense, the intervention was both gender-sensitive and gender-transformative in that it recognised and strengthened positive norms that support equality and an enabling environment, promoted the relative position of women and girls and transformed social structures, systems and broadly held social norms that perpetuate and legitimise gender inequalities (UNICEF, 2022).

By planning to address power relations through a multiscale lens and inequalities and not just efficiency in a “smart economic” logic (Chant & Sweetman, 2012), the intervention was able to plant the seed for a gradual transformation towards more inclusive spaces in agrifood systems at all levels. I posit that an intervention of this kind ultimately aims at reinforcing resilience “as a capacity, not as an outcome”, with the idea that resilience is about agency and about how rural women are able to make decisions with positive consequences for their food environments (Béné *et al.*, 2016, p. 125). Resilience, Béné *et al.* (2016) argue, needs to be supported in all its three capacities, *i.e.*, absorptive, adaptive and transformative.

First, through the enhancement of the absorptive capacity of rural households in SSA, its members can “moderate or buffer the impacts of shocks on their livelihoods and basic needs” (Béné *et al.*, 2016, p. 125), through interventions which buffer the negative effects of shocks, both idiosyncratic shocks “*i.e.*, household-level shocks, such as death, injury or unemployment” and covariate shocks “*i.e.*, community shocks, such as natural disasters or epidemics” (Günther & Harttgen, 2006, p. 2). For instance, given the increased agricultural productivity in Aram and Kenene, the communities are able to absorb and withstand different shocks and avoid food insecurity exposure all-year round.

Secondly, the adaptive capacity “refers to the various incremental changes and adaptations that people undergo in order to continue functioning in response to a shock or growing stress, without making major qualitative changes to the way they operate” (Béné *et al.*, 2016, p. 125). An example of this capacity are the *Debo Bamtare* results in decreasing child malnutrition levels through community education sessions on malnutrition screening from the early symptoms, and appropriate after-care nutrition with hyper-nutritious recipes prepared with locally available ingredients such as *niebé*, peanut, *Moringa Oleifera*, sweet potatoes and maize. By building on women’s skills and awareness on household practices, women in the villages of Aram and Kenene were not only able to diversify their diets and the one of their household members, but they were also able to strengthen their ability to adapt both diets and care practices to prevent child malnutrition in the future. Hence, this strategy was aimed at enhancing food security in the long-term, relying on “incremental change and adaptations” (*ibid.*) of nutritional practices based on local products.

Lastly, transformative capacity aims “at altering permanently and drastically the system’s functioning or its structure as a way to ensure the immediate ‘survival’ of the household/system” (*ibidem*, p. 125). For instance, the introduction of new agricultural tools and training enabled the transformation of agricultural labour and was therefore a catalyst for changes in the socioeconomic conditions and opportunities for the two communities, notably for the younger generations. The EIG *Coopérative Debo Bamtare* has the potential to transform its members’ position in the rural value chain, by introducing its products to local markets, thus becoming market actors able to sell their subsistence surplus. Furthermore, the intervention strengthened women’s position in the villages, highlighting both their critical role in agriculture, food-security and child nutritional well-being, and the potential of their agency and decision-making when given appropriate access to resources. The transformative capacity was fostered through an informed and intelligent evaluation of the lived realities of women in the villages of Aram and Kenene with the aim of bringing about social changes (Sen, 1999).

Béné *et al.*’s (2016) resilience framework stresses the way in which now more than ever, it is necessary for projects to aim at improving the resilience of rural Sub-Saharan communities

in the face of covariate and idiosyncratic shocks through a design of what Titttonell (2014) calls “multifunctional agroecosystems that are both sustained by nature and sustainable in their nature” (p. 53). Here, I employ the term sustainable with the precise meaning of a policy with “an imperative to extend the temporal and spatial boundaries of attention beyond the needs of the immediate here and now, as evinced by its embedded intergenerational ethic” (Yamada *et al.*, 2022, p. 2). In this sense, the project *Debo Bamtare* can be considered as a sustainable project following the definition given by Yamada *et al.* (2022) because it goes beyond the immediate needs of the rural populations by fostering women’s empowerment and tackling the reasons underlying food insecurity and child malnutrition in the target villages.

The project was designed with the stated objectives of achieving sustainability on three fronts: economic and financial sustainability, in the form of training courses of management and accounting to manage the profits derived from the increased agricultural productivity and opportunities for IGAs; institutional sustainability, by involving the village leaders, representatives and relevant local institutions such as the Municipality of Madina Ndiathbé, the sub-prefecture of Cas-Cas, the PUMA and the Prefecture of Podor; and lastly, sociocultural sustainability, by involving opinion leaders and local associations like the ADEVA with the objective of representing the interests, the decisions and the expectations of the local populations, including and encouraging women’s participation during all the phases of the project, therefore underlining “*l’importanza delle caratteristiche delle reti locali di attori e della loro capacità di auto-organizzarsi in funzione di un progetto condiviso di evoluzione dell’economia e delle società locali*” (Salone, 2005; Dematteis & Governa, 2005 in Pettenati & Toldo, 2018, p. 52).

Moreover, the sustainability objective is underpinned by a co-produced and negotiated approach based on the construction of a shared vision of development by territorial actors involved in the planning of the project through the valorisation of local resources (Pettenati & Toldo, 2018). It is this approach that enabled the smooth functioning of the initiatives proposed by the project and allowed them to develop and flourish even after the end of the project, bringing about long-lasting transformation in the socioeconomic fabric of the communities of Aram and Kenene.

The sustainability of the project does not necessarily lie in its ‘localisation’ *i.e.*, its property of being local: despite localisation being an important part of it, ‘local’ and ‘sustainable’ are not synonyms (Pettenati & Toldo, 2018). Instead, the sustainability of the project lies in its ability to produce long-term and transformative (Béné *et al.*, 2016) change. The co-design of the project with the aim of reflecting the interests of the population, especially women, which were brought to the forefront, created a horizontal planning environment, thus resisting top-down logics that ignore the local needs and realities. Local women were not silenced nor was their traditional knowledge devalued by foreign “saviours” who saw them as victims unable to advocate for themselves (Zakaria, 2021).

Instead, local rural capacity was co-created and enhanced through the project activities, and, for women specifically, having new knowledge embedded in traditional practices represented a watershed point in their pathway to development, food security and empowerment. Indeed, when development actors work directly at the grassroot level, it is not only the socioeconomic condition that benefits from the intervention but also the communities

involved, which, through empowerment, are able to self-direct towards improvements of their own lives (Mehra, 1997).

6.4 Dealing with Complexity in SSA: Different Challenges, Shared Goals

Given the heterogeneity of the Sub-Saharan region, such complexity requires territorially-aware and gender-transformative approaches adapted to the local experiences and lived realities of rural communities. Every intervention is place-based, which means that it is inextricably embedded in a specific social, economic and cultural context typical of that environment. The challenges between and within Sub-Saharan countries change drastically from one rural environment to the other, and even if there exists a certain degree of commonalities, there is no 'one size fits all' solution for a successful development project, thus calling for policies inspired by an understanding of the broader social relationships within which individuals decide and negotiate to bring about change and receive support (Pellizzoli & Rossetti, 2013).

The issue of food insecurity is no easy feat and it involves an analysis of "the underlying, structural dimensions of malnutrition and food insecurity and their longer term dynamics" (Béné *et al.*, 2016, p. 133). In other words, it requires recognising the different nuances that converge into food insecurity and the reasons underlying some individuals' diminished entitlements (Sen, 1981) compared to those of others. Thus, examining interventions in agrifood systems in SSA demands "*une démarche intégrative et pluridisciplinaire, à la fois géographiquement et historiquement située, et multiscalaire pour mieux appréhender les hétérogénéités internes*" (Garambois *et al.*, 2018, p. 113).

In this respect, Gawayia (2008) calls for context-specific policies able to address the needs of women farmers in SSA through "deliberate, systematic, targeted, and co-ordinated support, in order to eliminate food insecurity" (p. 155). Her research in rural Mozambique on communities affected by the HIV/AIDS epidemic highlights how women face the additional constraint of absorbing the consequences of food insecurity brought about by illness and deaths related to the high rates of HIV/AIDS in the country and in general, in southern Africa. The health crisis causes erosion of assets, agricultural productivity and women's free time, given that other than being responsible for household food security, they are the primary caregiver for sick family members (*ibid.*)

The HIV/AIDS epidemic is only one example of the many context-specific challenges in SSA and it illustrates how Sub-Saharan women respond differently to distinct challenges and threats in their environments. These circumstances call for flexible approaches able to grasp complexity and place-based gender struggles to create transformative change: "for a truly transformative gender agenda, development organizations must recognize the politics of their locations, as well as the perhaps surprising extents and limits of transnational power and solidarity" (Crystal, 2021, p. 4). It is this perspective that employing gender-sensitive approaches in development projects means to "avoid reinforcing or exacerbating inequitable access to resources between men and women. Although there are limitations to what individual projects can accomplish, at a minimum they should not perpetuate gender inequities" (IFPRI, 2012, p. 15).

A gender equitable environment can only be considered such if it is underlined by a deep understanding of the complexities and root causes in inequality in labour, food and nutrition, climate resilience and empowerment. Thus, *“applicare un approccio di genere territorializzato significa comprendere la diversità dei bisogni e definire, di conseguenza, le strategie per soddisfarli”* (Mosca in Bignante *et al.*, 2024, p. 88).

Such understanding is instrumental to avoid only focusing on the constraints on access to resources, and also addressing issues “such as time poverty, limited mobility, disproportionate unpaid care and reproductive work, erasure of women’s indigenous knowledge and harmful gender norms” (FAO, NRI & AWARD, 2025, p. 8). In this regard, I acknowledge that there are a series of gaps and limitations in development planning based on the approach I discussed so far. For instance, through collective landholding the danger of perpetuating internal hierarchies within women groups based on age or ethnicity, for example, is not erased and needs to be addressed in a way that does not reproduce inequalities. On the same note, customary land tenure systems that hinder women’s ability to inherit land may still stall individual land rights, thus impeding the long-term and successful outcome of interventions in agrifood systems in SSA. Without a thorough analysis of all structural constraints, efforts to recast household relations, improve agricultural productivity, nutritional well-being and foster women’s autonomy and empowerment may run the risk of being fragmented and partial.

The territorially-aware approach of the *Debo Bamtare* project was able to create a more equitable environment in which resources became available for women too, thus gradually circumnavigating the structural constraints in agriculture hindering the enhancement of rural livelihoods. This means that the project achieved a *“presa di coscienza della necessità di costruire traiettorie di sviluppo place-based, basate sulla valorizzazione delle risorse locali, sul coinvolgimento attivo delle popolazioni e sul riconoscimento del valore dell’agricoltura familiare di piccola scala, fondata sul sapere locale”* (Bignante *et al.*, 2024, p. 184).

Such an approach could be, if adapted to the specific local realities, replicated in other similar circumstances. For example, women producers and processors of cassava for *attiéké* (cassava couscous) in Adzope in Ivory Coast, face a series of constraints to the advancement of their IGA due to a *“faible accès à la terre en situation de forte pression foncière, pas d’appui des structures d’encadrement agricole, pas d’accès au crédit agricole, pas d’organisation professionnelle et dégradation des pistes rurales”* which compromises their contribution to the development of rural areas, access to markets and opportunities to valorise their product (Affessi, 2017, p. 18). Doss (2015) explains that this is because generally, women have smaller and less productive plots of land and access to transportation and markets are often differentiated by gender, as some markets are not considered as appropriate places for women. In this case, an intervention proposing the creation of cooperatives and collective forms of landholding, together with agricultural and management training, could reduce their vulnerability and marginalisation in local markets by creating a space for and by women to exercise agency in local economies in accordance with the challenges of their territory.

Ultimately, planning development interventions that are territorially-aware means considering territories as *“contesti attivi nel favorire processi di sviluppo specifici”* (Pettenati & Toldo, 2018, p. 52) and *“componenti essenziali del processo di cambiamento”* (Dematteis & Governa, 2005) in which the beneficiaries of projects are involved in territorialised actions

(*azioni territorializzate*) aimed at collective action among the territorial actors (Governa, 2006). The objective is the valorisation —intended as creation of “*valore aggiunto territoriale*” (*ibid.*, p. 28) — of their own context, e.g., the valorisation of local products in Aram and Kenene and their nutritional value to achieve food security and decreased child malnutrition. These territorialised and territorialising actions (*azioni territorializzate e territorializzanti*) are activated through the projects and “*fanno ‘presa’ sulle componenti del milieu locale, ne attivano le potenzialità specifiche, le usano e le riproducono, contribuendo così alla costruzione di nuove territorialità*” (*ibidem*, p. 26). Ultimately, what is brought about is the territorial sustainability of development, i.e., “*la capacità autonoma di creare valore aggiunto territoriale*” (*ibidem*, p. 28). It is through such territorial sustainable development that it is possible to create the enabling environment able to foster inclusive participation for resilient agrifood systems and food security. By fostering social transformation through mechanisms that encourage agency and female empowerment, development interventions provide women in rural environments the conditions to take the first step of the long path towards more secure, resilient and sustainable agrifood systems for Sub-Saharanans today and in the future.

Final Considerations

In this chapter I elaborated on the insights informed by the *Debo Bamtare* project by discussing on how the notion of women as agents of development can be problematic if instrumentalised and employed to create cardboard empowered women (Lewin, 2010; Britwum, 2022), mere tools for broader goals in development interventions devoid of personal rights and aspirations. I stressed the need for territorially-aware and gender-sensitive and transformative approaches capable of grasping local realities in their nuances. Gender relations are different in every context, they are linked to culture and local traditions but “gender itself is a universal social construct that is part of the fabric of any group or population [...], is a way to look at a society in its totality to ensure that the interest of all its members—men, women, and children—are addressed” (IFPRI, 2012, p. 12).

Gender being a universal social construct does not need to be mistaken with the consequent meaning that “gender” as a category is a monolith applicable to every context: being a woman is different everywhere and gender is not always the most salient identity. Furthermore, I reflected on definitions of empowerment and how it is brought about in interventions. To back my discussion, I employed examples from the *Debo Bamtare* project to demonstrate how the project created an enabling and equitable environment which fostered empowerment, resilience and planted the seed for deeper structural changes in relationships in and outside the household.

Lastly, the long-term effectiveness of gender-sensitive, transformative and territorially-aware interventions in rural agrifood systems depends on the co-design and co-operation of multiscalar actors, in other words, on what Dematteis and Governa (2005) call “*rapporti transcalari*”, i.e., the “*relazioni capaci di orientare i processi di sviluppo, intrattenute da attori locali, singoli o collettivi, che interagiscono e contrattano con attori, anch’essi singoli o collettivi, che operano a livelli diversi*” (p. 80). There exists no magic formula for the creation of such relationships able to orient development processes, and development actors should not aim at finding one either. Every rural context is different and dealing with such complexity with flexibility may be the only possible approach to transform rural agrifood systems, foster

empowerment and food security in SSA. Such transformation would not be possible without the acknowledgement of the diversity and centrality of women's roles in rural agrifood systems in the region and the need for supporting their efforts to achieve a meaningful and lasting impact across their communities towards inclusive agrifood systems able to guarantee a resilient, durable and sustainable right to food and food sovereignty.

CONCLUSION

In rural Sub-Saharan Africa (SSA), women are the backbone of agriculture, they produce the majority of food crops, especially in smallholder and subsistence farming, the main source of livelihood for millions of Sub-Saharanans. Their contribution is strictly intertwined with food security outcomes in the region. SSA, especially its rural areas, leads the global statistics for the highest rates of poverty, child mortality and undernutrition, despite the massive untapped potential of its soil and its ever-growing youthful population. The chronic hunger of the region is a consequence of a series of multiscalar dynamics which hinder the achievement of the right to food for the 264 million of Sub-Saharanans currently facing hunger (Action Against Hunger, 2025).

Moreover, political, social, environmental and economic challenges act as stumbling blocks to SSA's development, threatening rural communities' abilities to foster sustainable and resilient agrifood systems. Most Sub-Saharan agricultural economies remain set on export-oriented agricultural productions heritage of the colonial period. This results in countries in SSA being dependent on food imports to satisfy domestic food requirements, therefore exposing themselves to the vagaries of the global markets. Low productivity, together with weak access to new agricultural technologies such as fertilisers, reliable irrigation systems and improved conservation systems, are serious structural constraints to development, productivity and food security, today more than ever, given the mounting episodes of environmental hazards in the region, notably drought, floods and heatwaves.

In the face of SSA's persistent challenges, the global community has long been active in finding solutions to tackle the structural impediments that have been stalling SSA's development for decades. The latest conceptualisation of such efforts is the 2030 Agenda for Sustainable Development (UN, 2015), aimed at eradicating the tyranny of poverty, the greatest obstacle to food security, health, gender equality and all the other capabilities (Sen, 1999). There exists the recognition on a global level that the region's wicked problems, notably hunger and poverty, cannot be addressed in a vacuum. Synergic and coordinated efforts among multiscalar actors are therefore necessary to achieve long-lasting development.

It is against this backdrop that this thesis has argued that women's contribution to rural agrifood systems, intended as the *ensemble* of the interconnected activities and relationships involved in production, processing, distribution and consumption of food (FAO, 2023), plays a pivotal role in guaranteeing food security, nutritional well-being and development. The thesis has sought to answer the research question: "how do women shape and transform rural agrifood systems in Sub-Saharan Africa and what are the implications for food security and empowerment within the Sub-Saharan territorial context?"

By adopting a qualitative approach, I combined academic literature to data constructed during my fieldwork experience of the *Debo Bamtare* project by the NGO APDAM (*A Proposito Di Altri Mondi*) in the context of my participation in the 2024/25 edition of the UNI.COO (UniTO for International Cooperation) mobility project promoted by the University of Turin. Through this methodological approach I explored the main themes and commonalities of the rural Sub-Saharan context to bridge context-specific experiences to broader patterns in the region, thus providing a general picture of women's participation in

agrifood systems that also simultaneously encapsulates their individual and place-based lived realities.

First, by analysing the gendered division of labour in rural agrifood systems in SSA, I dissected the ways in which women labour is undervalued, also due to its impossibility of being measured in economic terms. Economic statistics fail to capture the “reproductive” tasks that women perform daily, often considered as a natural extension of their roles as mothers, wives and daughters, yet they are the very activities sustaining agricultural labour and food provision.

This contextual analysis of SSA allowed me to set the foundation for the theoretical framework of the thesis. I thus elaborated on the concept of food security, tracing its definitions and developments, highlighting its importance in the analysis of the Sub-Saharan context. Moreover, by presenting the concepts of right to food and food sovereignty, I further developed the interconnections between food, land, labour and gender. From these interconnections, I then focused the discourse on power from a feminist political ecology’s perspective to highlight how apparently neutral structures such as the household are sites in which power is exercised and contested.

It is in this perspective that patriarchal structures governing access, control and decision-making about food and resources are highlighted and it becomes clear how the related dynamics influence Sub-Saharan agrifood systems on a multiscalar level. Indeed, food insecurity is a “multi-scalar collective action issue” (Clement *et al.*, 2019, p. 3) that encapsulates several scales through which power operates both horizontally and vertically. It is against this background that rural women’s endeavours in agrifood systems encounter stumbling blocks such as weak access to agricultural technologies and land tenure rights, thus eroding their “*ability to make choices*” (Kabeer, 2005, emphasis in text, p. 13).

Secondly, by interacting with the notions of space (Massey, 1994) and territoriality (Dematteis & Governa, 2005), I underlined the ways in which social relations in Sub-Saharan rural agrifood systems can be conceived as a complex and dynamic constellation of relationships that revolve around power. These social relations, notably gender relations, when analysed in the light of the Sub-Saharan context, bring about the everyday lived experiences of rural communities by revealing the ways in which inequality and power are perpetuated across multiple scales. In the gendered division of labour in agriculture, women face the “unfair burden” (Hendriks, 2002) of providing solutions to adapt to environmental and socioeconomic pressures. These solutions are an example of de Certeau’s (1984) everyday practices to assert and reaffirm spatial agency in the margins of multiscalar gender power structures, thus challenging the narrative of rural African women as victims and beneficiaries, incapable of agency or initiative. Moreover, I argued the ways in which nutrition plays a fundamental role for physical and mental well-being. Especially when malnutrition stems from unequal allocation of food, the health destinies of mothers and children are severely jeopardised.

By grounding the research with definitions of foodscapes and food environment, I demonstrated the ways in which food security in rural SSA depends upon numerous factors capable of orienting food security outcomes. Conflict, climate change, access to land and large-scale land acquisition (LSLAs) are only a few examples of phenomena interfering with millions of Sub-Saharans’ rural livelihoods, disproportionately affecting women and children. Women specifically are expected to counter the negative consequences of such phenomena

to always ensure household food provision despite the hardships of their environments, while also being the most disadvantaged group in matters of land tenure rights under statutory and customary laws.

Thirdly, in order to further elaborate the reasoning, I integrated into my thesis my fieldwork experience on the *Debo Bamtare* project in Senegal. I demonstrated how in development interventions women's contribution to agrifood systems can be supported when coupled with gender-sensitive and territorially-aware approaches aimed at fostering transformative and long-term change in rural communities. The assessment of the outcomes of the *Debo Bamtare* project in the Saint-Louis region in the north of Senegal allowed me to explore the ways in which the creation of an enabling environment for women, notably through project interventions providing training, agricultural technologies and knowledge, can radically revolutionalise rural livelihoods, promote female empowerment and guarantee secure food security against malnutrition, notably of younger populations.

This case study is an example of a development project in SSA which carefully designed and planned an intervention catered to the needs of rural women and gave them the opportunity to carve their own space in rural agrifood systems through a series of mechanisms aimed at improving both agricultural productivity and socioeconomic wellbeing, thus fostering empowerment and proposing alternative narratives for women. However, despite the growing recognition of gender disparities in rural interventions, issues pertaining to women's land rights persist under customary and statutory legal systems. Indeed, the patriarchal norms governing such systems that often limit women's ability to inherit, own or control land individually are still a big hurdle to women's autonomy. Moreover, issues of time poverty and unbalanced gender role expectations continue to play a significant role in how household and community labour is performed.

Lastly, what emerges from this thesis is that SSA is far from a monolith and it resists over-simplifies narratives, as each of its regions faces its context-specific challenges. This research did not seek to provide solutions to the problems of such a vast region; instead, my aim was to discuss the wicked problems of food insecurity and gender inequality with an insightful theoretical and conceptual framework to bring to light the nuances of rural agrifood systems. In doing so, I explored the ways in which women are at the heart of rural agrifood systems in SSA, shaping not only what and how food is grown, conserved and prepared, but also nutritional outcomes, directly influencing food security levels in their communities. Stewards of embodied knowledge about land and food, supporting their potential and their efforts for guaranteeing food security in the face of the current polycrisis is essential to ensure a sustainable and secure future in which no one is denied their right to food or left behind in the strife against hunger, poverty, gender inequality and the many other challenges of our time.

As reminded by Cornwall (2016), this process is not just about merely unlocking and tapping into women's potential, but it requires to think differently, to think differently about women, about how they think about themselves, about the situations they daily navigate, about their social worlds, relationships and horizons. And in SSA, as anywhere else, the outcomes of this shift are different for everyone. It is in this sense that development must be understood as a process, rather than a destination. There exists no single pathway, but only multiple pathways towards the shared goal of achieving the highest quality of human beings that

compose society (Konczacki, 1972), nothing less than one of the most desirable goals of development.

The paths towards food security, gender equality and eradication of poverty, notably rural poverty in SSA, are a collective issue which undoubtedly requires the cooperation and coordination of multiple actors, from rural communities to development actors and policymakers. These challenges are not confined to SSA alone, and given the interconnected nature of our current world, the development of a resilient agrifood system in the Sub-Saharan region means shaping the stability and sustainability of other regions too. Can development still be considered development if it is fragmented or limited to certain regions of the world? Inclusive, global and shared development requires the consideration and active participation of empowered women and communities in rural SSA—and across the borders too—to feed the villages of the next generations. And it is exactly in the process of finding new pathways for development that the wisdom of the African proverb shines again: *“if you want to go fast, go alone. If you want to go far, go together”*.

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