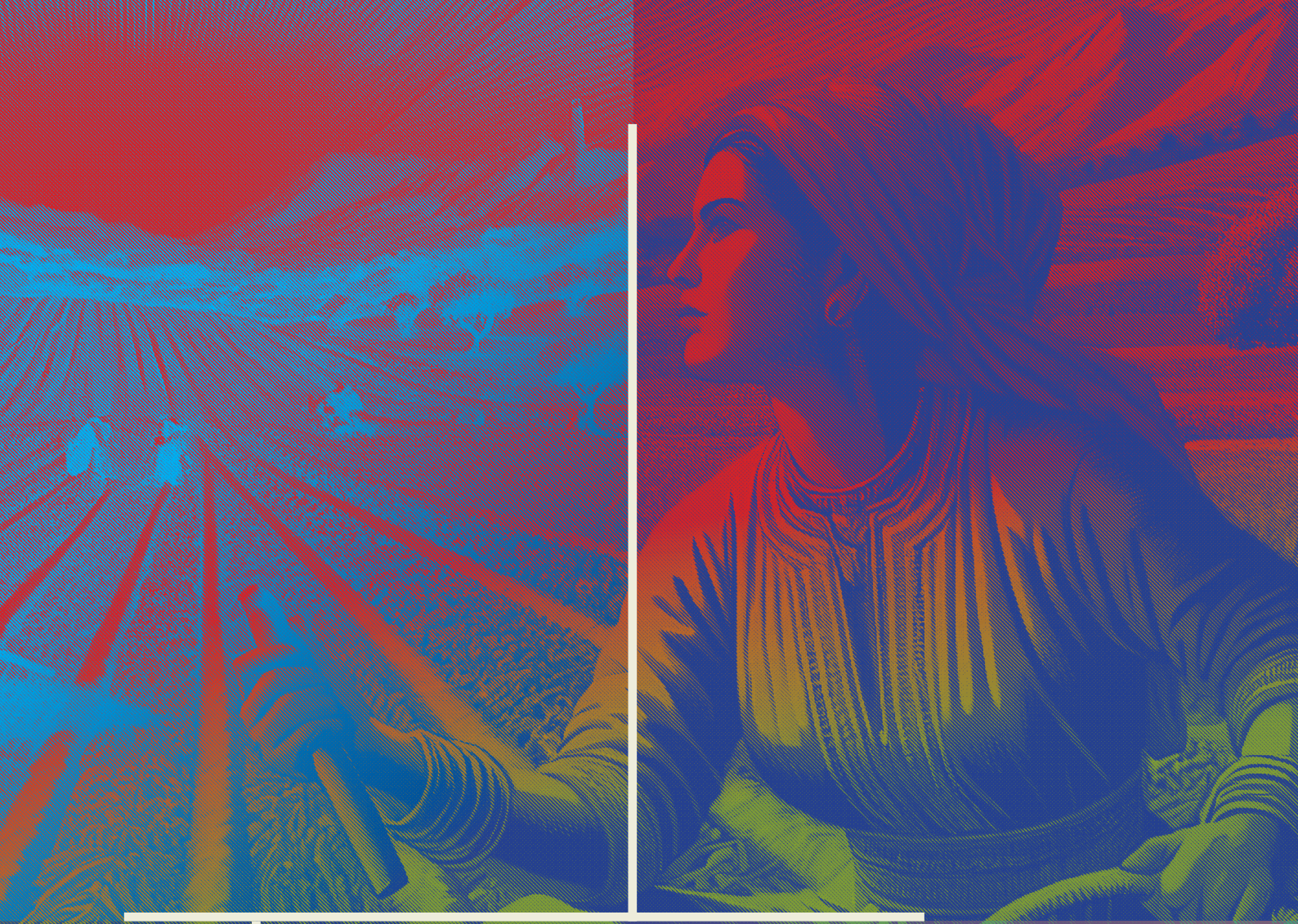


Women's Working Conditions in Tunisian Fruit and Vegetable Agriculture

The Example of the Governorate of Monastir & Sousse in the Sahil Region of Tunisia

Master Thesis
University of Zurich
Department of Geography

Donia Noura Ben Khalifa
16-731-176
Supervised by: Prof Dr Christian Berndt

Kurzfassung

Diese Masterarbeit untersucht die Arbeitsbedingungen von Frauen in der tunesischen Obst- und Gemüseproduktion mit dem Ziel, insbesondere die Region *Sahil* zu analysieren und zu verstehen. Die zentrale Frage, die diese Studie leitet, ist, wie Frauen selbst ihre Situation beschreiben, unter Berücksichtigung ihres sozioökonomischen Hintergrunds, formeller und informeller Ungleichheiten und wie diesen Ungleichheiten entgegengewirkt wird. Die Arbeit stützt sich auf die verschiedenen Ebenen von Machtverhältnissen und Intersektionalität, um zu analysieren, wie sich diese auf die Lebenserfahrungen dieser arbeitenden Frauen auswirken. Die Studie stützt sich auf qualitative Interviews, die eine umfassende Untersuchung der verschiedenen Ebenen (Mikro-, Meso- und Makroebene) von Ungleichheiten ermöglichen. Sie konzentriert sich darauf, wie Machtverhältnisse bei den erlebten Ungleichheiten eine Rolle spielen und wie diese sich überschneiden. Die Ergebnisse der Studie zeigen, dass diese Frauen mit einer Vielzahl von Herausforderungen konfrontiert sind, darunter unzureichende Arbeitssicherheit, Belästigung, fehlende Transportmöglichkeiten, niedrige Löhne, begrenzte Bildungschancen und geringer politischer Einfluss. Diese Herausforderungen werden durch den globalen Klimawandel noch verschärft, wodurch bestehende sozioökonomische Ungleichheiten verstärkt werden. Trotz dieser widrigen Umstände reagieren Frauen unterschiedlich auf diese Herausforderungen und zeigen oft Resilienz durch die Entwicklung von Soft Skills und Bewältigungsstrategien. Die Studie unterstreicht die dringende Notwendigkeit gezielter politischer Maßnahmen zur Verbesserung der Arbeitssicherheit, zur Gewährleistung einer gerechteren Ressourcenverteilung und zur Förderung nachhaltiger landwirtschaftlicher Praktiken. Die Studie unterstreicht ferner, wie das komplexe Zusammenspiel von Geschlecht, Wirtschaftsstrukturen und ökologischen Herausforderungen die Lebenswirklichkeit dieser Frauen prägt, und unterstreicht die Notwendigkeit eines mehrdimensionalen analytischen Ansatzes. Diese Forschung leistet einen bedeutenden Beitrag zur geografischen Forschung, indem sie die Stimmen von Frauen in der tunesischen Landwirtschaft verstärkt und die Maßnahmen beleuchtet, die für die Zukunft von entscheidender Bedeutung sein werden. Die Ergebnisse unterstreichen die Notwendigkeit eines multidisziplinären Ansatzes, insbesondere im Zusammenhang mit den Herausforderungen, die sich aus den Auswirkungen des Klimawandels ergeben. Die Studie betont die entscheidende Rolle der Verbesserung des Status von Arbeitnehmerinnen bei der Überwindung struktureller Ungleichheiten und hebt die Notwendigkeit einer integrierten und intersektionalen Perspektive in der wissenschaftlichen Forschung und Politikentwicklung hervor, um eine nachhaltige Verbesserung der Bedingungen von jenen Frauen in Tunesien zu gewährleisten.

Schlüsselwörter: *Landwirtschaft, Arbeitsbedingungen, Frauen, Tunesien, Ungleichheit, Machtverhältnisse, Geschlechtersegregation, Geschlechterstereotypen, Klimawandel*

Women's working conditions in Tunisian fruit and vegetable agriculture

Abstract

This Master thesis examines the working conditions of women in Tunisian fruit and vegetable production, with the aim of analysing and understanding the *Sahil* region in particular. The central question guiding this study is how women themselves describe their situation, taking into account their socio-economic background, formal and informal inequalities, and how these inequalities are counteracted. The work draws on the various levels of power relations and intersectionality to analyse how these affect the lived experiences of these working women. The study utilises qualitative interviews, enabling a comprehensive examination of the various levels (micro, meso and macro) of inequalities. It focuses on how power relations play a role in the inequalities experienced and how these intersect. The study's findings demonstrate that these women face a multitude of challenges, including inadequate occupational safety, harassment, a lack of transportation options, low wages, limited educational opportunities and little political influence. These challenges are further compounded by global climate change, thereby reinforcing existing socio-economic inequalities. Despite these adverse circumstances, women demonstrate varied responses to these challenges, often exhibiting resilience through the development of soft skills and coping strategies. The study underscores the pressing need for targeted policy measures to enhance occupational safety, ensure fairer resource distribution, and promote sustainable agricultural practices. The study further underscores how the intricate interplay among gender, economic structures, and ecological challenges shapes the lived realities of these women, underscoring the imperative for a multidimensional analytical approach. This research contributes significantly to the field of geographical research by amplifying the voices of women engaged in Tunisian agriculture and illuminating the measures that will be essential for the future. The findings underscore the necessity of a multidisciplinary approach, particularly in the context of the challenges posed by the effects of climate change. The study emphasises the crucial role of enhancing the status of women workers in overcoming structural inequalities, and it highlights the need for an integrated and intersectional perspective in scientific research and policy development to ensure the sustainable improvement of the conditions of female agricultural workers in Tunisia.

Key words: *agriculture, working conditions, women, Tunisia, inequality, power relations, gender segregation, gender stereotypes, climate change*

Acknowledgment

I would like to express my deepest gratitude to all those who have given me their support to complete this research.

Firstly, I would like to thank my supervisor, Dr Christian Berndt, for his valuable guidance and support throughout the research process. His expertise and insightful feedback were crucial to the successful completion of this thesis.

I would also like to thank Dr Martina Wernsdörfer and Prof Dr Marcel Zentner for their encouragement and constructive suggestions after proofreading my thesis, which contributed significantly to the improvement of this research.

I would like to express my sincere thanks to Nozha Makhlouf (Msc. in translation), who helped me with some translations of Arabic literature, to my dear friend Amina, who organised some contacts on my behalf before I started my fieldwork, and to Lorenz Ehrismann (photography & media design), who helped me with the final technical and graphical touches. Special thanks go to my husband, who accompanied me during the fieldwork, helped me find each agricultural site and looked after my safety.

I would also like to acknowledge the financial support of the University of Zurich, which made this research possible.

On a personal note, I am deeply grateful to my family, friends, and therapist for their unwavering support and encouragement. Their belief in me has kept me motivated throughout this journey.

Finally, and most importantly, I would like to thank all the women, professionals and employers who gave me insights into their professional and personal lives and whose participation was essential to the success of this research.

The use of AI

Throughout this Master thesis I used translation and AI tools such as DeepL Write and ChatGPT solely for linguistic adjustments and paraphrasing to enhance the clarity and flow of sentences or paragraphs, as English and French, the languages used in literature, are not my native languages. I personally selected, read and analysed all the scientific literature cited in this work, and I critically discussed all the findings from my field research.

Language

In this thesis, the feminine form has been used in the first place if necessary, with the masculine form reserved only when referring specifically to men. This choice reflects the structure of Tunisian language and social norms, which are primarily rooted in a binary understanding of gender, without the separation from biological sex that scientific research in the Global North tends to make. The use of a wider range of gender expressions would have easily led to unnecessary complexity or even hindered effective communication between myself, as a researcher with a partly Western perspective, and the participants in this study. In addition, this thesis strives to avoid making generalisations that reach beyond Tunisia and to ensure that the language used remains precise and contextual.

Table of contents

1. Introduction

This Master thesis examines the working conditions of women in Tunisian agriculture, focusing on fruit and vegetable production in the governorates of Monastir and Sousse. Through empirical research conducted in Tunisia, it seeks to contribute to the existing literature by exploring the structural inequalities that shape the experiences of female agricultural workers and to give them a voice, as current policies fail to do so, making it difficult to ensure labour protection, resource distribution and sustainable practices.

The increasing participation of women in agricultural labour, often referred to as the 'feminisation of agricultural labour' (Abdelali-Martini & Dey de Pryck, 2015), is a phenomenon that has been frequently observed across the Middle East and North Africa (MENA) region. As socio-economic shifts drive men out of agriculture, women have come to represent a significant share of the workforce, with their numbers continuing to rise. However, little is known about the long-term economic and social implications of their involvement in commercial farming, particularly as they age and face difficulties transitioning into less physically demanding roles (Baruah & Najjar, 2022).

According to scientific studies, the MENA region is already experiencing significant negative effects of climate change on agricultural productivity and food security, with these challenges expected to intensify in the future (Borghesi & Ticci, 2019). Despite differences in economic and climatic conditions between MENA countries, the most affected populations remain the most vulnerable, particularly women (Waha et al., 2017). To fully understand the impact of climate change and its implications for female agricultural workers, it is essential to analyse not only regional trends but also specific country contexts. Tunisia, as a state in the MENA region, stands out for its legal advancements in women's rights, as will be explained in more detail later; nevertheless, the present research aims to determine whether these rights translate into improved working conditions in agriculture and the lived experiences of women affected by them and what role climate conditions, in combination with other factors might play (Gregson et al., 2014).

The thesis is structured into two main sections. The first section draws from peer-reviewed studies covering the broader MENA region and parts of the northern Mediterranean to establish a foundational understanding of the topic and show the state of research. The second section builds upon these findings by incorporating more focused literature and first-hand data collected during fieldwork in Tunisia. Given the scarcity of gender-disaggregated data on women's formal and informal roles in agriculture (Icarda, 2023), this research aims to fill a significant knowledge gap. Due to the limited scope and timeframe of this study, fieldwork was concentrated in the semi-arid governorates

of *Monastir* and *Sousse*, located in the central-east region of the country, also known as the *Sahil*[1] region in Tunisian dialect.

This study adopts a feminist geography perspective (Gregson et al., 2014) to identify inequalities and explore solutions to improve women's access to justice. The methodology involves qualitative approaches, namely interviews, emphasising the intersectionality of existing inequalities and power relations that define female agricultural labour. The study also considers the role of migration, climate change, and potential adaptation strategies in agriculture, in addition to assessing the economic implications of increasing agricultural exports.

The thesis opens with a geographical contextualization, covering climatic conditions, labour structures, and gendered inequalities in the research region followed by the chapters on theory and methods. The theoretical framework centres on power relations at macro-, meso- and micro-level and intersectional perspectives, forming the basis for the research question. This is followed by the author's own positionality, to ensure transparency regarding the researcher's perspective and role and to highlight potential constraints in the analysis. The methodological section explains the way of data collection, the data analysis process and a critical reflection on the study's limitations, leading to the presentation and interpretation of key findings and to highlight potential constraints in the analysis. Next the thesis delves into the formal and informal inequalities experienced by women in fruit and vegetable agriculture, with a particular focus on their potential resources, such as soft skills and training options, and concludes the two chapters with a final discussion.

Finally, this thesis offers recommendations for future research and policy interventions to address the identified research gaps and practical challenges regarding Tunisian women's working conditions in fruit and vegetable agriculture. The conclusion synthesizes the main findings, answers the research questions, and underscores the broader significance of the study. By shedding light on the realities of female agricultural workers in Tunisia, this research contributes to the discourse on gender injustice in agricultural labour and aims to provide insights for scholars, policymakers, and development practitioners working toward more equitable labour conditions.

[1] Within Tunisia, the governorates of *Monastir, Sousse* and *Mahdia* are referred to as the 'Sahil region'. On an international scale the Tunisian National WASH Account (World Bank) refers to the governorates of *Sousse, Monastir*, *Mahdia* and *Sfax* as the 'Central East'. For the purposes of this thesis, the term 'Sahil region' was used because all interviews were conducted in the Tunisian dialect, where this term was used.
The term 'Sahil' in this thesis does not refer to the translation of 'الساحل' (Al-Sahl / Al-Sahil) which means 'the coast / coastline', nor to the geographical 'Sahel zone' which refers to the 'semi-arid transitional zone from east to west of Africa between the Sahara desert in the north and the dry savannah in the south'.

2. State of research

To understand the research findings and arguments of this thesis, it is important to first gain some insight into Tunisia's geographical location. Therefore, the next three sub-chapters will build upon the existing literature on this topic and discuss the general climatic and agricultural conditions as well as gender inequalities within and around the country of Tunisia.

2.1 Climate conditions

The MENA region is highly vulnerable to the impacts of climate change, a situation intensified by the rapid social and political transformations underway in the region (Baruah & Najjar, 2022). Climate change has become the main determinant of future agriculture in the Mediterranean region, where projections indicate that water scarcity will become even more severe, further endangering agricultural work. In addition, the Adaptive Capacity Index, representing the ability of Mediterranean agriculture to respond to climate change, shows in recent history that the region's ability to adapt its socio-economic and agricultural systems is limited. The increasing pressures and limitations in time and costs for adaptation methods make it even more difficult for the southern Mediterranean countries to adapt to climate variability (Iglesias et al., 2011).

The agricultural sector, which is very important for the MENA region's economy, remains crucial as largest employer in many Arab countries, with a total of 22% of employment, increasing to 31% among women. Around 70% of the region's poor live in rural areas. For the MENA region, climate change is one of the most significant threats to agricultural productivity and food security. While high-income countries can cope with costly self-protection measures such as large budgetary resources to cushion possible food price shocks and large investments in acquisitions of farmland, low-income countries such as Tunisia are forced to overexploit their already vulnerable land area (Borghesi & Ticci, 2019).

Other authors add that the agricultural sector in the MENA region is heavily rain-fed (70%), making it particularly vulnerable to changes in temperature and precipitation, with significant consequences for food security and rural livelihoods (Waha et al., 2017). In Tunisia a third of the population is directly dependent on agricultural income, yet the sector faces significant water stress, exacerbated by systemic problems and climate change (Voigt, 2023). Agriculture in Tunisia highlights the intersection of economic importance and environmental vulnerability. The sector contributes around 12% to national GDP and employs 14% of the workforce (Galal, 2023). However, its dependence on irrigated land, which consumes about 81% of the country's water resources, underlines the sector's precarious balance (Gafrej, 2016).

Addressing these challenges requires a comprehensive understanding of water availability, climate impacts and the social and physical limits to adaptation (Iglesias et al., 2011). The biophysical impacts of climate change, combined with other pressures and a lack of resilience in some countries,

contribute to the high vulnerability of both agricultural and social systems in the region (Waha et al., 2017). Furthermore, the environmental costs of agricultural activities, such as soil degradation, desertification and overexploitation of resources, further intensify these challenges (Gafrej, 2016).

2.1.1 Temperature

The MENA region is experiencing significant and accelerating temperature increases due to climate change, making it one of the most vulnerable areas globally. Projections indicate that the strongest warming is expected near the Mediterranean coast and in inland areas (Baruah & Najjar, 2022; Waha et al., 2017). In Tunisia, for instance, an average annual temperature increase of +2.1°C is projected by 2050 (Gafrej, 2016).

The MENA region has emerged as a hotspot for worsening extreme heat, drought, and aridity conditions. Projections show that with global warming of +2°C, regional warming in the MENA region could reach +3°C, leading to an increased frequency of unusually hot summer months. This trend is expected to make June, July, or August consistently abnormally hot, placing significant stress on populations and ecosystems (Waha et al., 2017).

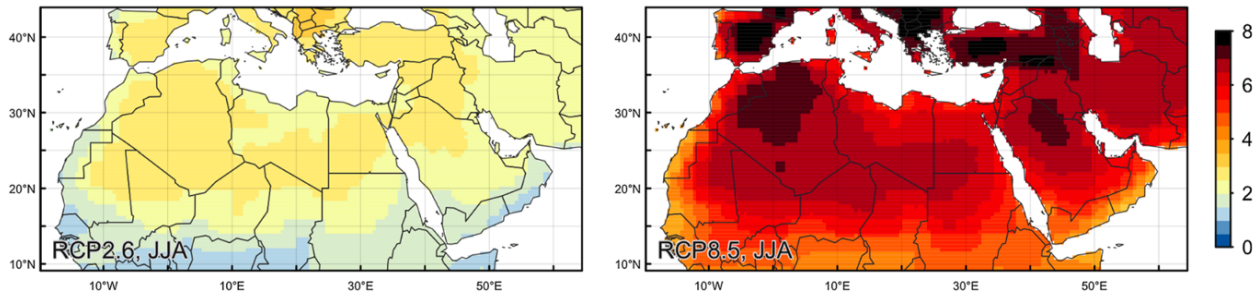


Figure 1: Temperature projections (°C) for the scenarios RCP 2.6 (left) and RCP 8.5 (right) and the summer months (JJA) in 2071-2099 per grid cell (Waha et al., 2017; p. 1625).

Compounding this warming trend, MENA countries are projected to become global drought hotspots by the end of the 21st century, particularly under scenarios with limited mitigation measures. However, projections of future droughts vary depending on the models and methodologies used, which makes precise estimates challenging (Waha et al., 2017).

The rise in temperature is not just an environmental issue but also a severe socio-economic challenge. The MENA region, which is already host to extensive semi-arid and desert areas like the *Sahil* region, is becoming increasingly drier, with chronic water shortages and peaks of extreme heat. These conditions have severe consequences for economic activities, health, and mortality risk. For instance, even if global warming is limited to +2°C, the heat-stress mortality risk for individuals over the age of 65 is estimated to increase significantly (3 to 7 times) by 2100 (Borghesi & Ticci, 2019).

Moreover, 2023 was the seventh consecutive dry year in Tunisia, highlighting the persistent and compounding nature of these climate stressors (Voigt, 2023). The National Institute of Statistics

(Ministry of Agriculture, Water Resources and Fisheries, 2024), recorded maximum values of 40.6°C (*Monastir*) and 35.0°C (*Mahdia*) in 2015, 43.6°C (*Monastir*) and 36.5°C (*Mahdia*) in 2019, and 48.3°C (*Monastir*) and 47.5°C (*Mahdia*) in 2023.

2.1.2 Precipitation

The MENA region is facing a significant decline in precipitation, which is projected to decrease by 10 to 30% by 2050 compared to 1961-1990 levels (Baruah & Najjar, 2022; Gafrej, 2016). This decline is expected to have profound consequences, including reduced groundwater recharge and severe over-exploitation of aquifers, exacerbating the region's already critical water scarcity (Baruah & Najjar, 2022). As the most water-stressed region in the world, the MENA region faces the dual challenge of scarce precipitation and high population growth with geographical concentration in urban areas (Borghesi & Ticci, 2019).

Projected changes in annual precipitation show a distinct north–south dipole pattern: regions north of 25°N are expected to become drier, while southern regions may have slight increases in precipitation. However, given the hyper-arid climate of southern areas, the absolute increase in rainfall is unlikely to provide significant relief. This drying trend is consistent with observed increases in meteorological drought since the 1960s, highlighting a broader regional trend of aridity (Waha et al., 2017).

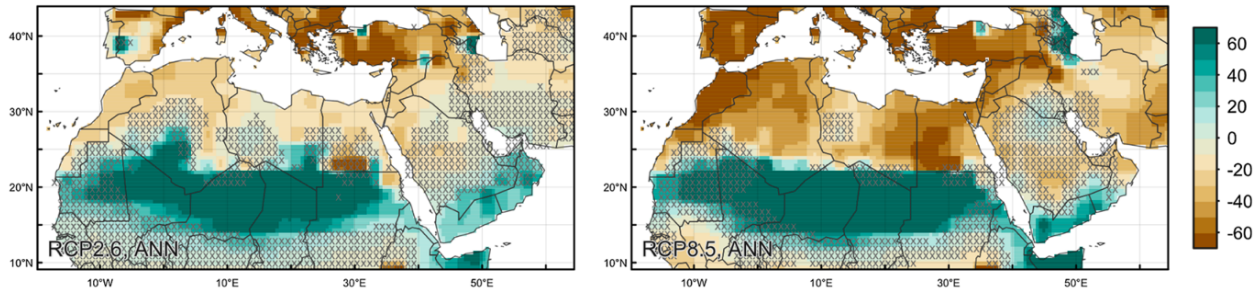


Figure 2: The percentage change in the aridity index for scenarios RCP 2.6 (left) and RCP 8.5 (right) by 2071-2099 relative to 1951-1980. Hashed areas indicate uncertain results, with models disagreeing in the direction of change. Note that the negative change corresponds to a shift to more arid conditions (Waha et al., 2017; p. 1627).

In Tunisia, data from the National Institute of Statistics (2024) recorded rainfall [mm] values of 545.8 mm (*Monastir*) and 668.4 mm (*Mahdia*) in 2016, 541.2 mm (*Monastir*) and 462.8 mm (*Mahdia*) in 2020, and 451.0 mm (*Monastir*) and 441.2 mm (*Mahdia*) in 2023. As a result, the rising drought has led to drastic water shortages in Tunisia, with reservoirs falling to less than 30% of capacity and water rationing introduced by mid-2023 (Voigt, 2023).

The MENA region's agriculture, which relies heavily on rain-fed systems with less than 300mm of annual rainfall, is particularly vulnerable to declining rainfall. Indeed, in such regions, rain-fed agriculture is only productive along the coasts and in the mountains in the semi-arid belts (Baruah &

Najjar, 2022). But as rainfall becomes less reliable, agricultural productivity will be further threatened. By mid-century, cropland is projected to shift northwards, with shorter growing seasons and lower yields, particularly for crops such as vegetables and legume plants that are particularly sensitive to summer water shortages (Waha et al., 2017). In Tunisia, the wheat growing season[2] is projected to be significantly shorter: by 10 days for a +1.3°C temperature increase, 16 days for +2°C, and up to 30 days for a +4°C increase (Waha et al., 2017). In addition, extreme weather events such as floods and prolonged droughts are expected to become more frequent and intense, further disrupting the seasonal distribution of precipitation (Gafrej, 2016).

The declining availability of water due to reduced rainfall is intensifying competition between agriculture, industry, municipalities, tourism and ecosystems. In the Mediterranean region, agriculture accounts for more than 50% of total water use, but other sectors such as tourism and ecosystem services are rapidly increasing their demands. These competing demands often lead to social and environmental conflicts, particularly in southern countries where water scarcity is most acute during the spring and summer months (Iglesias et al., 2011).

The combination of water scarcity, high population growth and geographical concentration of population exacerbates the region's vulnerability to precipitation decline. Reduced water quality due to higher temperatures and lower runoff puts additional stress on irrigated areas, further limiting the ability of the agricultural sector to meet the region's food needs (Iglesias et al., 2011). This scarcity has already made MENA countries heavily dependent on food imports, a situation that is likely to worsen as the climate change pressures increase (Waha et al., 2017).

2.1.3 Soil and groundwater management

The MENA region experiences severe challenges in soil and groundwater management due to the combined effects of climate change, population growth and unsustainable practices. The average annual water availability is below the water poverty line of 1,000 cubic metres per capita per year. Agriculture, which accounts for 80 to 85% of total water use, exacerbates this scarcity (Baruah & Najjar, 2022). The region's soil and groundwater reserves are therefore under significant stress, threatening agricultural productivity, food security and economic stability.

Groundwater resources in the region are being exhausted at an unsustainable rate. In Tunisia, groundwater levels dropped by an average of 30 metres between 1996 and 2012 due to declining rainfall and the proliferation of illegal deep wells. Over 120% of Tunisia's renewable groundwater resources are currently abstracted annually, leading to severe over-exploitation and salinisation (Voigt, 2023). Throughout the Mediterranean, intensive groundwater extraction has led to quality degradation, intensified by excessive pumping, irrigation return flows containing contaminating

[2] The present study has determined that the current agricultural season (from the onset of cultivation to the completion of harvest) in Tunisia extends from October to the end of June.

agrochemicals, and urban wastewater infiltration as well as severe erosion and declines in organic matter adding to the vulnerability of soil organic carbon pools (Iglesias et al., 2011).

In Tunisia, 60% of soils in public irrigated areas and 86% of soils in private areas are moderately to highly sensitive to salinisation, further limiting agricultural productivity. Furthermore, the use of saline water and unsuitable soils in southern Tunisia has exacerbated these problems, leaving large areas vulnerable to declining fertility and reduced crop yields (Gafrej, 2016). Poor agricultural practices such as monocropping and bad land management have further exacerbated problems of salinisation, siltation and reduced soil resilience (Voigt, 2023).

Institutional fragmentation and weak governance additionally complicate effective soil and groundwater management. In many MENA countries, including Tunisia, lack of coordination between ministries and administrative regions leads to conflicts and inefficiencies in water and agricultural policies (Iglesias et al., 2011). Political instability, inadequate funding and poor infrastructure maintenance exacerbate these problems. For example, aging water pipes in Tunisia result in water losses of up to 50%, while wastewater treatment plants are operating below capacity, with less than 50% of treated wastewater being reused (Voigt, 2023).

Despite major development efforts, mismanagement of water resources persists. The Tunisian government has produced numerous studies on water management, but implementation remains a challenge due to shifting priorities and political instability. Mismanagement and the lack of actual valid long-term quantitative data from the National Institute of Statistics (2024) highlight this lack of oversight.

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Households	251.9	266.4	272.5	289.6	299.5	–	–	–	–
Households connected to water network	244.8	257.9	264.3	279.1	289.0	309.9	307.7	321.1	333.0
Families not connected to water network	7.1	8.5	8.2	10.5	10.5	11.8	12.4	11.8	13.1
Agriculture, forestry and fishing	1691.8	1685.6	1686.6	–	–	–	–	–	–
Industry	88.2	88.0	89.6	32.9	29.0	31.8	32.4	31.9	28.2
Other economic agents	2.0	2.4	2.3	2.7	2.4	2.3	2.3	2.1	2.3
Mass consumption	42.5	42.6	43.7	44.5	45.3	45.7	45.2	45.5	45.9
Tourism	18.4	18.3	17.5	17.9	13.5	16.0	16.1	15.5	12.3

Figure 3: Total water use [Mio. m^3/year] (Ministry of Agriculture, Water Resources and Fisheries, 2024).

	2005	2006	2007	2008	2009	2010	2011	2012
The total volume of fresh water withdrawn	2448.3	2506.6	2540.7	2555.3	2562.2	2721.0	–	–
Waters returned to the environment without use	61.0	64.0	63.5	42.2	39.0	52.0	–	–
Net volume of fresh water withdrawal	2387.3	2442.6	2477.2	2513.1	2523.2	2669.0	–	–
Desalinated water	15.4	16.5	18.2	18.2	19.5	19.7	19.3	19.7
Reused water	67.0	67.0	67.0	67.0	67.0	67.0	67.0	–
Total volume of freshwater made usable	2469.7	2526.1	2562.4	2598.3	2609.7	2755.7	–	–
Losses resulting from leakage occurred during transport	439.0	436.0	441.0	447.0	445.0	449.0	–	–
Wastewater production	272.1	280.7	286.1	298.1	304.8	317.4	–	–
Evapotranspiration	1758.7	1809.4	1835.3	1853.2	1859.9	1989.3	–	–

Figure 4: Water balance [Mio. m³/year] (Ministry of Agriculture, Water Resources and Fisheries, 2024).

Furthermore, limited public confidence in water quality undermines the adoption of alternative water sources, such as treated wastewater, despite their potential to reduce water scarcity (Voigt, 2023). Efforts to address these challenges include significant investments in water mobilisation, conservation, and infrastructure improvements. Tunisia allocates about 30% of its annual agricultural budget to water programmes, with a focus on reducing losses, meeting drinking water needs, and sustainably conserving resources (Gafrej, 2016). Solar-powered desalination plants, such as those on the island of Djerba, offer promising solutions, although they remain limited in scale (Voigt, 2023).
To address soil degradation, strategies should prioritise sustainable land management practices, such as crop diversification, reduced use of agrochemicals and improved irrigation techniques. Strengthening institutional frameworks and fostering stakeholder cooperation are also critical to improve governance and resource management. Integrating climate variability into agricultural and economic policies is essential to building resilience to future environmental change (Gafrej, 2016).

2.1.4 Sea-level rise

Sea-level rise is one of the most critical challenges posed by climate change, particularly for the MENA region, where human populations and economic activities are heavily concentrated in coastal areas. In 2010, approximately 60 million people lived in MENA coastal cities, and this number is expected to increase to 100 million by 2030 (Voigt, 2023). This concentration amplifies the risks associated with sea level rise, including flooding and land erosion (Borghesi & Ticci, 2019).
In addition to flooding the main impacts of climate change in coastal zones include damage from extreme weather events such as storms and storm surges, saltwater intrusion into coastal aquifers, and accelerated coastal erosion. Sea level projections for Tunisia, for example, show significant rises under both moderate (RCP2.6) and severe (RCP8.5) climate scenarios. The already existing problems

of over-extraction for irrigation and reduced aquifer recharge are expected to be aggravated by sea-level rise, leading to groundwater salinisation, rising water tables and poor soil drainage, contributing to the loss of agricultural land (Voigt, 2023).

In Tunisia's coastal regions, an average sea-level rise of 30 cm to 50 cm is projected by 2050, with annual beach retreat of 20 cm to 135 cm, depending on the specific coastline and region (Gafrej, 2016). This poses a significant threat to agricultural productivity and the livelihoods that depend on it, particularly as salinized soils and reduced freshwater availability make farming even more difficult. Adapting to all these changes in the Mediterranean and MENA regions is particularly complex (Iglesias et al., 2011).

The MENA region's dependence on coastal zones for the living of the population and economic activities makes it particularly vulnerable to the impacts of sea-level rise. However, for the purposes of this thesis, sea-level rise will not play a further role, as other issues have a much greater impact on the current working conditions of women in Tunisian fruit and vegetable production.

2.1.5 Consequences

As explained above, the MENA region faces profound and multifaceted impacts due to climate change, exacerbating existing vulnerabilities in water, agriculture, health and socio-economic stability. Declining agricultural productivity, driven by reduced water availability and increased soil degradation, threatens rural livelihoods and contributes to internal migration, especially from rural to urban areas (Waha et al., 2017). The region's population is expected to increase significantly, intensifying demand for water and food resources and potentially leading to increased social conflict in an already politically unstable environment (Waha et al., 2017; Borghesi & Ticci, 2019).

Health risks are another critical concern, as extreme weather events such as heatwaves and floods increase morbidity and mortality, especially among vulnerable groups such as the elderly, children and those with chronic health conditions. Water pollution further worsens public health challenges by increasing the prevalence of waterborne diseases (Waha et al., 2017).

Migration, both national and transnational, remains a key response to worsening conditions. While migration offers an opportunity to escape unsustainable livelihoods, it often creates new insecurities and vulnerabilities for the displaced populations. Nevertheless, poor and marginalised groups, especially those unable to migrate, still face the greatest risks, including hunger and malnutrition due to reduced crop yields mentioned above (Borghesi & Ticci, 2019). Meanwhile, reliance on food imports exposes the region to global price shocks, further threatening food security (Waha et al., 2017).

It becomes clear that climate change interacts with existing inequalities to disproportionately affect vulnerable populations, such as smallholder farmers and rural communities, while undermining poverty reduction efforts (Waha et al., 2017).

In summary, while agriculture remains critical for food security, environmental sustainability, and socio-political stability in the MENA region and the backbone of the region's rural economies, existing

risks are expected to increase as a result of climate change. Extreme temperatures, limited groundwater and less rainfall, as well as scarce agricultural and arable land pose significant risks to the sector and its workers. Prioritising comprehensive adaptation strategies that address water scarcity, environmental degradation and socio-economic resilience through appropriate land and water management will be key to sustaining livelihoods and achieving long-term stability in the region (Borghesi & Ticci, 2019; Iglesias et al., 2011).
These significant impacts of climate change are explored in more detail in the discussion and outlook chapters of this thesis.

2.2 Agricultural working conditions

2.2.1 Importance of agricultural work within the region

As already mentioned, agriculture plays a pivotal role in the socio-economic and ecological fabric of the MENA and Mediterranean region, where it is both an economic driver and a cultural base. Despite its significance, the agricultural sector faces challenges that highlight its complexity and its embeddedness in global systems.
In Tunisia, despite the contribution of agriculture to the GDP and the employment of the working population (Galal, 2023), a significant portion of agricultural workers — over 80% — are employed informally, reflecting structural vulnerabilities within the sector. The precarious labour market is further compounded by Tunisia's reliance on agricultural imports to meet domestic demand, underscoring a gap between local production and consumption (Galal, 2023). Similar dynamics can be observed across the Mediterranean and MENA region. Small farmers in the region, particularly in arid zones such as *Gabes*, Tunisia, show resilience and creativity. These farmers, skilled in groundwater-based irrigation systems, have adapted to challenging conditions with remarkable expertise. However, their livelihoods face threats from large-scale investors who exploit water resources for intensive irrigation, undermining traditional practices and local sustainability (Ayeb & Bush, 2014).
Sensitivity to climate change further emphasises the vulnerability of MENA agriculture to global environmental changes, placing additional pressure on already strained ecosystems and rural livelihoods.
The Mediterranean region's importance of agriculture extends beyond local consumption. According to Gertel & Sippel (2014), North African countries serve as vital suppliers of early harvests and supplementary produce to European markets. This dynamic is reinforced by trans-Mediterranean agricultural systems that create 'fluid spaces' of labour migration, market integration and free trade (Boeckler & Berndt, 2014). These systems, however, often externalize European production needs to the South, tying regions like Morocco — and to a lesser extent, Tunisia — into global commodity chains with France, the last colonial power in the two countries, as a major endpoint (Sippel, 2014).

Gender and labour relations also shape agricultural practices in the Mediterranean. Seasonal work, such as the cultivation and harvest of strawberries in Morocco or tomatoes and peppers in Tunisia, highlights the precarious nature of agricultural employment. Workers, often women, face long working days and low wages, reflecting broader patterns of inequality and exploitation (Nieto, 2014).
To conclude, agriculture in the MENA and Mediterranean region is both a lifeline and a site of contestation. Its role in supporting rural livelihoods, contributing to national economies, and integrating into global markets underscores its importance. Yet, the challenges agriculture faces — from climate vulnerability to labour exploitation — demand critical attention and sustainable strategies to ensure the sector's resilience and equity. As North African countries such as Morocco and Egypt are much more researched, my motivation for this thesis was to understand the first link in the commodity chain of Tunisian agriculture, working women, and their involvement into the global agricultural market.

2.2.2 Ongoing management

Given that the northern side of the Mediterranean, countries like Spain and Italy, as well as Morocco on the southern side, are much more the subject of Western scholarly research, I have included some findings on management and working conditions in the agricultural sector from these regions in the current thesis.
Agricultural management in the MENA and Mediterranean region reflects a complex interplay of environmental fragility, socio-economic disparities and geopolitical pressures. Agricultural policies and practices in the region reveal clear contradictions: while aiming for modernisation and efficiency, they often marginalise small farmers and degrade local ecosystems, leading to unsustainable outcomes.
Policies such as market protection and price guarantees in Mediterranean Europe have encouraged high production per unit of land but at significant environmental costs. Intensified irrigation, monoculture expansion, and large-scale land conversion projects have led to soil and water pollution, aquifer depletion, and landscape simplification (Perez, 1990). These practices impose unsustainable pressure on the fragile ecosystem of the Mediterranean. The ecological consequences of such policies are mirrored in Tunisia, where rapid irrigation development — particularly in regions like *Sidi Bouzid* — has transformed agricultural landscapes, often at costs of small farmers (Ayeb & Bush, 2014).
The neoliberal reforms and structural adjustment programmes adopted in Tunisia since the 1980s have further intensified inequalities among the population. While large-scale investors and agribusinesses have benefited, small farmers have faced reduced subsidies and increased exposure to market forces (Ayeb & Bush, 2014).

"*It's not the government that subsidises the farmer. It's the opposite*"
[tomato farmer, *Sidi Bouzid*] (Ayeb & Bush, 2014; p. 6).

Over half of Tunisia's farmers own less than five hectares of land, yet they collectively share just 11% of the total farmland. By contrast, a small elite controlling over 50 hectares exploits a disproportionate share of resources (Ayeb & Bush, 2014). This pattern of 'depeasantisation', observed in Morocco as well, marks a shift from peasant-led farming to wage labour, driven by unequal access to land and water resources (Sippel, 2014).

Export-oriented agricultural policies in both Tunisia and its neighbouring countries, for example Egypt, prioritise high-value crops for international markets, often at the expense of local food security. In Tunisia, this strategy has intensified competition for limited water resources, with already mentioned over-pumping leading to groundwater exhaustion — a trend also evident in Morocco (Sippel, 2014). The geopolitical push for a free trade area between the EU and its Mediterranean partners has further reshaped agricultural priorities, favouring agribusiness investments over sustainable practices (Boeckler & Berndt, 2014).

The marginalisation of small farmers is not random but a direct consequence of development policies that prioritise large-scale, mechanised agriculture. In Tunisia, state-driven narratives dismiss small-scale, traditional non-mechanised farming as inefficient, despite the adaptability and knowledge demonstrated by these farmers, particularly in arid regions like *Gabes*. The absence of farmer consultation in policy design has deepened rural discontent and resistance. Protests, such as those by tomato farmers in *Sidi Bouzid*, underscore the growing frustration with policies that fail to address the economic realities and concerns of rural communities (Ayeb & Bush, 2014).

Efforts like those by the *Agence de la Vulgarisation et de la Formation Agricoles* (AVFA), which will play a key role in chapter 7.4.3, aim to support farmers through education and resource management. However, overlapping institutional responsibilities and underfunding hinder sustainable resource management, as seen in both Tunisia and Morocco (Development Aid, 2024; Sippel, 2014). The need for coordinated well-funded policies that balance economic priorities with ecological and social sustainability remains urgent.

Today's agricultural management in the MENA and Mediterranean region requires a power shift. Rather than perpetuating policies that favour elite interests and external markets, it is recommended that governments focus on inclusive strategies that empower small farmers, protect fragile ecosystems, and ensure equitable resource distribution (Sippel, 2014). As Perez (1990) suggests, success may depend on interventions that are adapted to local ecological and social contexts, avoiding a one-size-fits-all approach that could risk intensifying existing inequalities.

2.2.3 Current working and living conditions

The current working and living conditions in the agricultural sector of the MENA and Mediterranean regions reveal significant inequalities and challenges, with common patterns of exploitation, poor labour standards, and systemic neglect. Across the region, agricultural workers, particularly migrants and women, bear the main burden of these injustices.

To compare, migrant agricultural workers in Spain and Italy often endure difficult conditions characterised by low pay, health risks and limited protection due to their lack of power linked to their migrant status, fear of negative repercussions and economic necessity. In Spain, workers report exposure to hazards such as chemicals, poorly maintained equipment and heavy manual labour, intensified by poor safety measures and inadequate health services (Ahonen et al., 2009). Similarly, in Apulia, Italy, migrant workers live in ghettos without access to water, hygiene, or basic healthcare, which additionally increases the physical demands of back-breaking agricultural labour (Di Gennaro et al., 2021).

Gender segregation in agricultural labour is pronounced in both Morocco and Spain, where women are disproportionately employed in low-wage, precarious positions (Gertel & Sippel, 2014; Boeckler & Berndt, 2014). In Morocco, women represent nearly 30% of the agricultural workforce, primarily as labourers in intensive farming operations such as citrus and vegetable production (Sippel, 2014). Recruitment practices often involve intermediaries who transport workers in unsafe, overcrowded vehicles, stripping them of dignity and agency (Nieto, 2014).

In regions like *Sidi Bouzid*, Tunisia, the expansion of water-intensive farming for high-value crops has displaced smallholders, deepening rural poverty and inequality (Ayeb & Bush, 2014). This 'green mirage', as described by Ayeb and Bush (2014), reflects a broader trend of commercialisation that alienates small farmers from their land and livelihoods.

> "*I want my right. I want to live for my children to live. I have four children. I want my right that has been earned. My father paid for it with his own blood, health and sweat. How is it that they take it from us? We want justice*" [Egyptian women, head of her household] (Ayeb & Bush, 2014; p. 8).

The reliance on seasonal and migrant labour to sustain agricultural production is a recurring theme. These workers, often undocumented, are exploited to minimise production costs, leaving them vulnerable to wage theft, unsafe working conditions, and social exclusion (Boeckler & Berndt, 2014). In Morocco, where agricultural labour markets are intertwined with rural livelihoods, workers are often drawn from poor rural areas with unsafe transportation options or few alternatives for employment, due to low literacy and high birth rates. In this way, cycles of dependency and marginalisation are perpetuated (Sippel, 2014).

The exclusion of workers and small farmers from policy-making processes intensifies their vulnerability and sustains injustice. As Nieto (2014) points out, the absence of labour inspectors enables exploitative practices to thrive, while the lack of accessible alternatives leaves workers with little choice but to endure poor conditions. To address these issues, policies must centre the voices of those most affected, as I seek to do in this thesis by giving a voice to women working in Tunisian agriculture, and ensuring that labour protection, equitable resource distribution and sustainable agricultural practices are prioritised.

The current state of agriculture in the MENA and Mediterranean regions is a clear reminder of the human cost of cheap food production. Without systemic reforms that address the root causes of

exploitation and inequality, the cycle of marginalisation will persist, leaving the most vulnerable workers in increasingly precarious conditions. One of the consequences is migration out of the agricultural regions. But, according to Sippel (2014), new wage labour markets also can have the reversed effect of people from even poorer regions migrating into agricultural regions as will be illustrated in chapter 5.

Despite these challenges, there are examples of workers' resistance and collective action. In Tunisia, strikes organised by agricultural workers in *Zaghouan* and *Grombalia* have occurred, through which demands for fair wages, better working conditions, and more fairness in profit-sharing were articulated. In general, such actions remain limited in scope and impact, as systemic inequalities and weak institutional support continue to suppress meaningful change. Still, the self-immolation of street vendor Mohammed Bouazizi on 7 December 2010, in opposition to rural dispossession, systemic corruption and social inequality, initially triggered a nationwide revolution that spread across the whole MENA region (Ayeb & Bush, 2014).

2.2.4 Socio-political situation (after 2010)

Since 2010, Tunisia's socio-political situation has undergone profound changes that have had a significant impact on its agricultural sector and made it stand out within the wider MENA region. Events following the Arab Spring catalysed a wave of protests that overthrew President Zine El Abidine Ben Ali and set Tunisia on a path of political upheaval and attempted democratic reform (Poulis, 2015).

The Tunisian revolution was a reaction to years of authoritarian rule marked by corruption, nepotism and economic stagnation. In contrast to other MENA countries, Tunisia's post-2011 trajectory has been unique in its attempt to institutionalise democratic reforms. While countries such as Egypt reverted to military-dominated rule and Libya descended into protracted conflict, Tunisia's political transitions – despite imperfections – represent a significant, even if poor, departure from the authoritarian norm. However, this democratisation has not shielded the country from the broader economic challenges facing the region, such as high unemployment, rising food prices and dependence on external aid (Cavatorta & Clark, 2022).

Unlike the oil-rich Gulf states, which have used their resource wealth as a buffer against political instability, Tunisia's resource-poor economy has made it more vulnerable to the economic shocks that followed the Arab Spring (Hibou et al., 2011). Despite initial hopes for democratisation, Tunisia has struggled, and is still struggling, to achieve stable governance. The so-called 'constitutional coup' of 2021, which centralised power under President Kais Saied, illustrates the fragility of the political system and the recurring tension between reformist and authoritarian oriented groups (Cavatorta & Clark, 2022).

The economic impact of this instability is enormous. Unemployment, particularly among youth, remains a persistent problem, exacerbating regional inequalities between the urbanised coastal regions and the underdeveloped interior. Additionally, public services and infrastructure in the

interior regions lie significantly behind those on the coast, perpetuating cycles of poverty and disenfranchisement (Hibou et al., 2011).

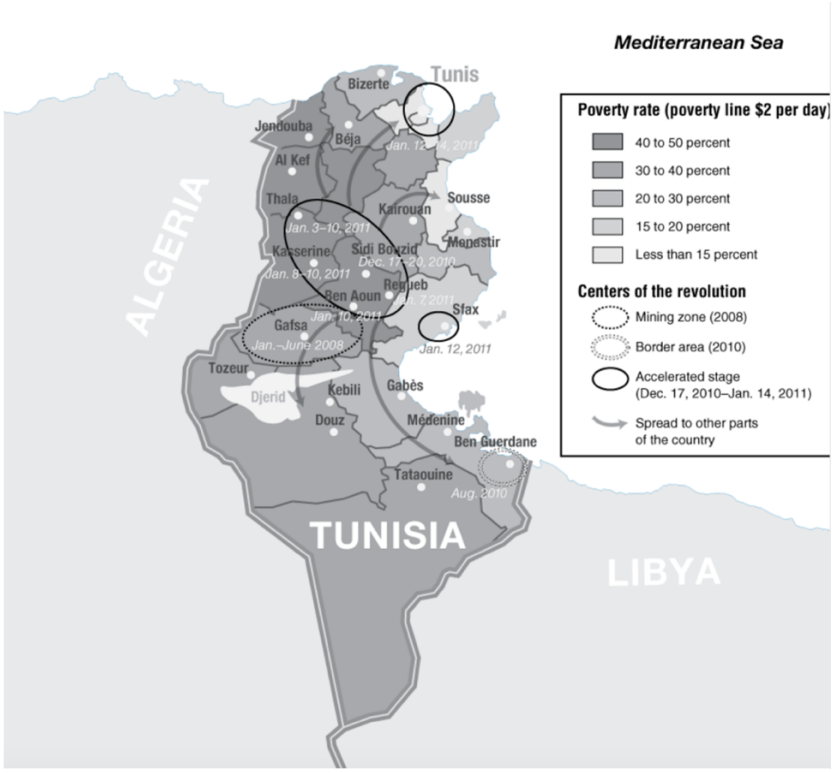


Figure 5: Poverty. Small farmer uprisings and rural neglect in Egypt and Tunisia (Ayeb & Bush, 2014; p. 2).

The agricultural sector, long a pillar of the Tunisian economy, has carried the burden of these socio-economic disparities. The fragmentation of agricultural land, often owned by families unable to compete in a liberalised market, forces rural youth to migrate to urban centres or abroad in search of better job opportunities. This rural exodus has led to the feminisation of the agricultural labour force, which will be further described in chapter 2.2.6.

Due to outdated practices, insufficient government support and poor resource management, agricultural productivity has not kept pace with the state development goals. Subsidies and price controls, while intended to stabilise the economy, have disproportionately benefited wealthier farmers and urban consumers, to the detriment of rural smallholders. This has created a structural inequality that reflects wider socio-economic divides within the country and the MENA region as a whole. As a result, Tunisia remains a net importer of agricultural commodities, a vulnerability that undermines food security and economic sovereignty (Hibou et al., 2011).

For Tunisia to address its agricultural and wider economic challenges, a rethink of its development model is essential. This includes a fair redistribution of subsidies, modernisation of agricultural practices and investment in rural infrastructure to reduce regional inequalities. Without such

measures, the economic grievances that fuelled the revolution risk perpetuating cycles of discontent and instability (Hibou et al., 2011).

Tunisia's struggle to balance political reform with economic justice offers both cautionary lessons and hope for the MENA region. It highlights the importance of addressing socio-economic inequalities as a foundation for building sustainable political systems and vice versa. The legacy of the Arab Spring, while marked by disappointment, remains a reminder of the power of collective action to challenge entrenched systems of inequality and oppression (Hibou et al., 2011).

"*The revolution was good but the dream – the dream of freedom, social justice and human dignity – has not been fulfilled*" [small farmer] (Ayeb & Bush, 2014; p. 1).

2.2.5 Development plans

Agricultural modernisation in the MENA region, including Tunisia, has introduced significant changes, including the liberalisation of production and the adoption of labour-intensive crops. This has created new employment opportunities, especially for women, while increasing agricultural productivity (Nieto, 2014). However, these advancements have come at a cost. The shift away from traditional practices like fallow systems, once valued for maintaining soil fertility, has led to dependency on fertilisers and other inputs that harm the environment. Furthermore, modernisation policies such as the Farm Modernization and Cessation of Farming schemes by the European Economic community (EEC) have stimulated land abandonment, contributing to rural depopulation and ecological degradation (Perez, 1990).

In Tunisia, the AVFA has taken steps to align agricultural practices with labour market demands. By offering vocational training and extension programmes, AVFA seeks to enhance the skills and know-how of agricultural workers. These efforts aim to bridge the gap between traditional farming knowledge and the demands of modern agricultural systems. However, the challenge remains in ensuring that these programmes are accessible and responsive to the needs of small farmers and labourers, who are often marginalised in policymaking processes (Development Aid, 2024).

Throughout the MENA region, small farmers and agricultural workers have resisted the impacts of commercialisation and dispossession. In Tunisia, the aftermath of the 2011 revolution saw a wave of land occupations, with workers reclaiming farmland previously controlled by elites or private investors tied to the old regime. Protests for improved access to irrigation water and reduced electricity costs for pumping highlight the struggles faced by rural communities to sustain their livelihoods. The establishment of the Farmers' Union of Tunisia reflects a growing demand for representation and advocacy in the agricultural sector, especially among those dissatisfied with traditional unions such as the *Union tunisienne de l'agriculture et de la pêche* (UTAP) (Ayeb & Bush, 2014).

The health and well-being of both, documented and undocumented agricultural workers remain critical concerns in the Mediterranean. The lack of legal protections and basic living conditions for

low-wage migrant workers in Italy's Apulia region or in Spain underscores the need for a multidisciplinary approach with integrated strategies addressing health, migration, and economic justice (Di Gennaro et al., 2021). Development plans must prioritise the provision of legal protections, healthcare access, and workplace safety to address these vulnerabilities (Ahonen et al., 2009).

Furthermore, development plans must navigate the tension between economic growth and environmental preservation. The rapid expansion of water-intensive farming practices has placed immense pressure on fragile ecosystems, as seen in Tunisia's semi-arid zones, and high electricity costs (Ayeb & Bush, 2014). Efforts to liberalise agricultural production should be balanced with sustainable resource management to prevent long-term environmental degradation. Programmes to integrate traditional agricultural and ecological knowledge with modern practices, such as afforestation initiatives or adaptive irrigation systems, should be implemented with caution and tailored to local contexts (Perez, 1990).

To sum up, for development plans to succeed, they must incorporate the voices of small farmers, labourers, and marginalised communities. Recognising the interconnectedness of social, cultural, economic and environmental dimensions in agriculture is crucial. As Nieto (2014) emphasises, understanding the entire commodity chain and the organisation of labour within it can inform policies that promote equity and sustainability.

2.2.6 Feminisation of agricultural labour

The feminisation of agricultural labour in the MENA region reflects significant structural and cultural shifts within the sector. As men increasingly migrate to urban areas or abroad in search of better job opportunities, women are left to sustain rural agricultural activities. This trend has resulted in women comprising over half of the agricultural workforce in several MENA countries, with figures surpassing 60% in some cases (Abdelali-Martini & Dey de Pryck, 2015). However, this increasement is often shaped by structural inequalities and deeply rooted gender norms.

The rise in women's involvement in agriculture is closely tied to globalisation trends, population growth, and agricultural intensification. These factors have transformed labour market dynamics, creating a new division of roles in response to supply and demand (Abdelali-Martini, 2011). In many countries, the agricultural workforce is becoming increasingly dependent on women, particularly in export-oriented industries. However, this dependency often exploits women as a source of cheap and segmented labour while reinforcing their vulnerability (Nieto, 2014).

Women in agriculture are often relegated to low-paying, labour-intensive jobs based on stereotypes about their physical attributes and perceived obedience. For example, in Morocco's strawberry industry, women are employed under the justification that their hands are more delicate and that they possess 'natural' patience (Nieto, 2014). Such narratives devalue women's skills, normalise their exploitation, and maintain systemic inequalities. This trend is mirrored across the region, where women perform unpaid family labour or take up wage labour under unjust conditions, including post-harvest and agro-processing activities (Abdelali-Martini, 2011).

Women's experiences in agricultural work are shaped by intersecting factors such as age, marital status, education, and socio-economic background. In Morocco, young (under 15), single, and often illiterate women with low level of formal education dominate fieldwork, while older, married women are more likely to work in packaging or processing. In contrast, Tunisia's agricultural workforce is composed predominantly of older women (over 30), reflecting varying social structures across the region (Nieto, 2014; Abdelali-Martini, 2011). Despite these differences, women across the MENA region share common challenges, including limited access to productive resources, technology, markets, and social protection (ICARDA, 2023).

Women in agriculture frequently bear the double burden of labour and domestic responsibilities. Agricultural work is often seen as a temporary activity to supplement family income, which undermines the recognition of women's contributions and maintains their undervaluation In Tunisia, for example, women juggle multiple roles, bringing children to work or taking care of household chores during breaks. In addition, agricultural work is often stigmatised, with patriarchal attitudes questioning women's autonomy and reinforcing cycles of marginalisation and dependency. Existing gender relations interact with other power relations that structure women's experiences and identities (Nieto, 2014).

To address the feminisation of agricultural labour equitably, there is an urgent need to break down stereotypes that devalue women's skills, improve their working conditions, and include women in policy-making processes. Investment in education, healthcare and social protection for women is essential to ensure that their still growing participation in agriculture becomes a pathway to empowerment rather than continued exploitation (Baruah & Najjar, 2022). Additionally, raising awareness about women's rights and addressing issues such as informal employment, lack of contracts, and inadequate safety measures are critical steps toward achieving gender equality in the sector (Abdelali-Martini, 2011).

2.3 Structural gender inequalities

As discussed in the previous chapter, while there are similarities in agricultural working conditions across the Mediterranean due to climate and security challenges, women face additional vulnerabilities rooted in gender inequalities within their societies. This chapter analyses the various intersecting inequalities experienced by women across the MENA region.

Gender inequalities remain a deeply rooted issue in the MENA region as well as in Tunisia, particularly in the agricultural sector. In fact, Tunisia ranks 115th out of 146 countries in the Global Gender Gap Index (Global Gender Gap, 2024). Women, despite being key contributors to agriculture, are often not recognised as legitimate workers and are excluded from legislation that guarantees equal pay and protection (Baruah & Najjar, 2022). This lack of social protection is compounded by informal recruitment practices, long working days, exposure to hazardous conditions, and discrimination based

on gender or socio-economic status, as highlighted in recent studies from Morocco (Jehouani & Meryem, 2023).

Structural adjustment programmes in the region frequently overlook the patriarchal family structures that exacerbate women's vulnerability and limit their access to education, training, and integration into the labour force (Karshenas & Moghadam, 2001). These programmes fail to address gender as a critical factor in labour market evolution, undermining the region's potential for economic growth and international competitiveness. Moreover, the migration of men from rural areas to urban centres or to the Global North has left women to shoulder most agricultural responsibilities under inequitable conditions (Abdelali-Martini, 2011).

As has been explained, climate change further intensifies these challenges, creating hotspots of climate-agriculture-gender inequality where women's vulnerabilities are heightened. The MENA region faces significant climate risks, with low adaptive capacities and persistent gender inequalities worsening the adverse effects on women in agriculture (Baruah & Najjar, 2022). Despite these obstacles, advancing gender equality and empowering women remain essential for achieving sustainable development, poverty reduction, and the United Nation's Millennium Development Goal of reducing extreme hunger and poverty (Abdelali-Martini, 2011). Efforts such as raising awareness of women's rights, providing education for rural girls, and implementing gender-sensitive strategies are crucial steps toward addressing these injustices (Abdelali-Martini & Dey de Pryck, 2015). However, these measures will have limited impact if systemic problems persist, problems like a lack of protective measures such as protective clothing, regularisation of rural women's work, free health care and safe transportation, and insufficient government budgets (Bajec, 2020). In addition, it is crucial for each MENA country to be wary of over-generalising about women's needs and experiences in such a diverse range of geographical, environmental, cultural, socio-economic, political and institutional contexts (Baruah & Najjar, 2022).

This thesis aims to contribute to the discourse on gender inequality in the MENA region, with a special focus on Tunisia, by shedding light on the intersection of agriculture, climate change, socio-economic conditions and cultural gender norms, highlighting the urgent need for inclusive policies and practices to empower women in this historically marginalised sector.

2.3.1 The 'Patriarchal Bargain'

The concept of the 'Patriarchal Bargain' sheds light on how women in patriarchal societies navigate systemic constraints to create space for agency and survival while upholding the broader patriarchal structure. The term, first introduced by Kandiyoti (1988), describes a trade-off where women accept their subordinate status in exchange for physical protection, economic security, and social respectability, thus reinforcing male domination (Salem & Yount, 2019). This framework is particularly relevant in the MENA region, one of the most gender-unequal regions globally (ICARDA, 2023).

In agriculture, women's participation is often shaped by deeply entrenched gendered power dynamics, particularly in access to productive resources like land, services, and jobs. Despite having

rights under civil, customary, or Islamic law, many women cannot exercise these rights, frequently ceding inheritance claims to male kin in exchange for familial support. Consequently, most rural women work as unpaid labour force on male-controlled farms. However, they also generate hidden incomes through activities like selling hand-made products or engaging in seasonal labour, revealing a nuanced form of economic contribution not captured in formal surveys (Abdelali-Martini & Dey de Pryck, 2015).

Women contractors in agriculture face additional challenges due to societal perceptions of their roles. Entering traditionally male-dominated spaces like labour contracting requires persistence, with many women demonstrating 'power from within' to assert themselves in these roles. Their self-confidence enables them to develop distinct management styles, often marked by cooperation and empathy. Yet, this agency is constrained; decisions about entering the labour force are frequently dictated by male family members, and cultural restrictions limit women's mobility and potential business expansion (Abdelali-Martini & Dey de Pryck, 2015). For example, younger, unmarried women often have their wages controlled by fathers and are socially obligated to contribute to household expenses, leaving them with little bargaining power (Abdelali-Martini, 2011).

In Qatar, women's increased labour force participation amidst the vanishing of 'classic patriarchy' illustrates how the patriarchal bargain evolves. While employment opportunities grow, systemic accommodations, such as gender-segregated workplaces, preserve elements of patriarchy. Women adopt clear strategies. They self-select certain occupations and sectors. Some also choose to work exclusively with women to maintain reputational respectability, a critical factor in securing family support and marriage prospects. These adaptations highlight how economic participation often preserves rather than disrupts macro-systemic patriarchal norms in economy, politics and religion (Salem & Yount, 2019).

Structural barriers like male-biased inheritance laws and limited land ownership compound these issues. With only 5% of women documented as landowners in the MENA region, cultural norms effectively render their ownership nominal. The inability to access land rights leaves unmarried, divorced, and widowed women particularly vulnerable to poverty and climate risks (Baruah & Najjar, 2022). MENA governments' focus on the development of skills, while crucial, fails to address these root causes of inequality.

Ultimately, while the patriarchal bargain enables women to exercise agency within restrictive systems, it also reinforces structural inequalities. Addressing these requires transformative policies targeting the underlying norms and laws sustaining patriarchal control.

2.3.2 Gender roles

Public space

In public spaces, gender roles are strongly shaped by cultural norms, values, and structural inequalities that dictate women's participation in the labour market. Women are often constrained

to lower-status manual jobs, in contrast to the higher-status technical occupations typically occupied by men, or specific job sectors due to occupational segregation based on gender, a system that devalues women's contributions and serves to justify their exclusion from managerial and skilled roles. Even in countries with legislation guaranteeing equal pay, wage disparities persist, reflecting systemic discrimination (Abdelali-Martini & Dey de Pryck, 2015).

In many rural contexts, women's participation in agriculture is overlooked, with their contributions, as has been touched upon, viewed as extensions of domestic responsibilities rather than productive labour in its own. Men typically dominate public labour transactions and decision-making spaces, while women remain sidelined, their work framed as simply assisting male relatives (Abdelali-Martini, 2011). Similarly, social expectations and perceptions often relegate women to informal or home-based work, limiting their access to productive resources, technology, finance, markets, and information (Baruah & Najjar, 2022). With regard to Tunisia, it is revealing to look at the questionnaire of the World Value Survey (WVF, 2017-2022):

Question	Agree strongly	Agree	Disagree	Strongly disagree	Don't know	No Answer
Men make better political leaders than women do	31.0 %	26.7 %	30.5 %	10.7 %	0.5 %	0.6 %
Job scarce: Men should have more right to a job than women	41.1 %	23.6 %	12.1 %	4.0 %	--	--

In urban contexts, patriarchal norms influence gender segregation in workplaces, with women predominantly employed in sectors like education, healthcare, and public administration (Salem & Yount, 2019). Cultural concerns about gender mixing restrict women's freedom in professional settings. Respectability, assessed by women's reserved behaviour towards male colleagues, is a crucial metric for societal approval. These restrictions place the burden of maintaining appropriate socio-cultural boundaries on women, often leaving them vulnerable to blame if interactions are deemed inappropriate (Salem & Yount, 2019).

Efforts to integrate women into the public economic sphere often fail to translate into real empowerment. While financial assets or wage labour provide a degree of economic autonomy, they rarely lead to greater control over resources or decision-making power. Instead, social and structural constraints often allow men to appropriate these benefits (Abdelali-Martini, 2011). Furthermore, institutional neglect of women's contributions in public policy intensifies their marginalisation, leaving their role in economic development largely invisible (Jehouani & Meryem, 2023).

Private space

Within the private space, entrenched societal norms and expectations position women as primary caregivers and homemakers, responsibilities that persist regardless of their participation in paid

labour. Women are typically responsible for tasks such as nutrition, healthcare, and children education within the household, roles that are rarely compensated or shared equally with male family members (Karshenas & Moghadam, 2001). These domestic duties limit women's mobility and their ability to engage fully in economic activities outside the home (Baruah & Najjar, 2022). With regard to Tunisia, it is again revealing to look at the questionnaire of the World Value Survey (WVF, 2017-2022):

Question	Agree strongly	Agree	Disagree	Strongly disagree	Don't know	No Answer
Pre-school child suffers with working mother	37.3 %	33.6 %	24.3 %	4.0 %	--	0.2 %
Being a housewife is just as fulfilling	31.7 %	40.9 %	22.1 %	4.6 %	0.7 %	--

Gender ideologies often frame women's economic contributions as supplementary to men's breadwinning roles, even when women earn more than their male counterparts. For example, women's wages are frequently spent on household expenses or investments such as home renovations for future generations, but these contributions rarely translate into property ownership or greater autonomy. In extreme cases, women's earnings are controlled by male family members, reflecting a systemic lack of empowerment in the domestic sphere (Abdelali-Martini & Dey de Pryck, 2015).

Women's aspirations for their daughters also highlight the persistence of traditional norms within the private space. Many mothers continue to value marriage and domestic roles as ideal outcomes for their daughters, though some express a desire for better education and career opportunities for the younger generation (Abdelali-Martini & Dey de Pryck, 2015).

Cultural norms further reinforce the separation of gender roles in the home, where men's involvement in traditionally female tasks is often stigmatised as 'shameful' or 'devaluing' (Abdelali-Martini & Dey de Pryck, 2015). It has to be noted, that gender roles apply not only to women, but also to men, who are culturally expected to protect female relatives or lose their respectability in society (Salem & Yount, 2019).

These rigid distinctions perpetuate a cycle of inequality and injustice, keeping women disproportionately burdened by unpaid domestic labour while limiting their opportunities for empowerment in both public and private spheres.

2.3.3 Soft skills

The network-based social soft skills, rooted in trust, relationships, community engagement, and shared experiences, plays a significant role in women's labour, particularly in the MENA region. Women who engage in agricultural work and other informal labour settings often develop valuable

soft skills that contribute to their personal growth and collective success. These skills, including communication, teamwork, and the ability to build trust, are instrumental in fostering both individual and community resilience.

One of the most notable aspects of soft skills among women in agricultural labour is the trust they cultivate within their workgroups and with their contractors. Female group leaders, for instance, achieve success by demonstrating reliability and fairness. By paying workers on time and creating a comfortable working atmosphere, these leaders earn respect and loyalty from the members of their teams. Such practices not only strengthen their relationships with workers but also boost their reputations beyond their immediate communities, attracting more work opportunities from surrounding areas (Abdelali-Martini & Dey de Pryck, 2015).

For many women, the social working environment is as valuable as the wages they earn. Labour groups provide a rare opportunity to connect with other women outside their families, breaking the isolation often imposed by cultural norms. These interactions foster a sense of solidarity, as women share common challenges, joys, and aspirations. Working together under difficult conditions creates bonds that lead to new perspectives, networks, and friendships. This solidarity exemplifies the 'power with' (community) dynamic, where collective effort enhances both individual and group well-being (Abdelali-Martini & Dey de Pryck, 2015).

The informal nature of these labour groups, operating without unionisation or formal recognition, underscores the importance of trust in their success. Verbal commitments to payments and production targets rely on this trust, which is deeply embedded in the social and economic system of exchanges characterising traditional environments. As women increasingly participate in these labour groups, their visible presence in the public domain begins to challenge restrictive social norms and practices, gradually legitimising women's work outside the home (Abdelali-Martini & Dey de Pryck, 2015).

Moreover, women's ability to navigate familial and societal expectations is another soft skill. In contexts like Qatar, women face familial objections to gender-mixed workplaces, often rooted in concerns about maintaining the family's reputation. Gaining and sustaining familial support requires women to balance respect for cultural norms with their claim for financial independence and professional growth. This interplay highlights the instrumental role of familial approval in reducing women's financial and social vulnerability (Salem & Yount, 2019).

Nevertheless, despite the potential of soft skills, women in MENA's agricultural sector face significant barriers to organising and mobilising for collective action. Farmers' unions prioritise issues like subsidised fertilisers and water rights rather than workers' rights or fair wages, leaving women without a strong platform to advocate for better working conditions (Baruah & Najjar, 2022). This lack of institutional support worsens challenges such as erratic incomes, insecure employment, work-related injuries, unaffordable or unavailable childcare. In the absence of social security nets, women

often continue working into old age to support their families. This highlights the critical need for structural changes to support their labour (Baruah & Najjar, 2022).

2.3.4 Education and training

Education, as a cornerstone of human capital, plays a significant role in shaping the opportunities for social participation and the (self)empowerment of women in the MENA region. While the region has seen notable progress in educational attainment, particularly among women, significant inequalities persist, especially between urban and rural areas. These inequalities are closely linked to socio-economic, cultural and political factors that collectively limit women's ability to use education for economic and social empowerment.

In urban areas, improvements in educational infrastructure have led to impressive female enrolment rates at all levels of education, often surpassing those of males (Abdelali-Martini, 2011). This progress has contributed to the 'democratisation of education', fostering greater gender diversity in the workforce and restructuring traditional divisions of labour (Jehouani & Meryem, 2023). However, rural areas face starkly different realities. Limited infrastructure, poor school availability beyond the primary level, and patriarchal family structures restrict educational opportunities for women and girls. Illiteracy rates among female agricultural workers remain alarmingly high — reaching 80% in Egypt, 92% in Morocco, and 96% in Tunisia (Abdelali-Martini, 2011).

Families in rural areas often value education but are constrained by poverty and the immediate need for income. This economic pressure forces children, particularly girls, to leave school and contribute to household incomes by working in agriculture. Seasonal agricultural tasks, such as olive picking, are controlled by its supply and demand (Al-Attar, 2023) and draw entire families into labour, further disrupting children's education and exposing them to harsh working conditions. Boys, too, are at risk of dropping out, particularly in households where fathers are absent due to migration. Without these paternal figures as role models, school attendance and performance often decline (Abdelali-Martini, 2011).

"*Literacy has been clearly recognised by The Fourth World Conference on Women, held in Beijing in 1995, as to have the capacity to empower women's participation in decision-making in society as well as to improve families' well-being*"
[United Nations, 1995-1996] (Abdelali-Martini, 2011; p. 7).

Despite progress in some areas, quality education for women remains a challenge, particularly in rural communities where literacy levels are low, and schools lack essential resources (Abdelali-Martini, 2011). Moreover, educational benefits are often undermined by systemic barriers. For instance, while women outperform men in educational attainment in some MENA countries, this success does not translate into greater economic or political participation — a phenomenon referred to as the 'MENA paradox'. Only 18.5% of women in the region participate in the labour force, the lowest rate globally (Baruah & Najjar, 2022).

Beyond that, the marginalisation of women in land and property ownership further limits the benefits of education. Although women may possess advanced agricultural knowledge, including the conservation of agro-biodiversity, their lack of access to resources like land, credit, and training inhibits their ability to apply this knowledge effectively. This connection gap highlights how educational gains are not always sufficient to overcome structural inequalities and gain control over resources (Abdelali-Martini, 2011).

The precarious quality of education also has long-term social implications. For women, illiteracy often reinforces dependency on patriarchal structures and limits their ability to navigate external systems or advocate for their rights. Additionally, the absence of educational opportunities for rural children, particularly girls, reinforces cycles of poverty and social inequality. Many young girls leave school to work in agriculture, where they face not only physical strain but also limited prospects for social or professional advancement (Abdelali-Martini, 2011).

Despite these challenges, education remains a critical pathway for fostering change, as will be pointed out in the discussion (chapter 8).

2.3.5 Socio-economic conditions within the agricultural sector

Gender segregation

Gender segregation in the workplace is a structural outcome deeply intertwined with patriarchal norms and practices (Salem & Yount, 2019). In the agricultural sector, this phenomenon manifests in various forms, including differentiated roles, restricted access to certain activities, and wage injustices. These patterns reflect both societal expectations and practical accommodations to cultural behaviours, reinforcing a division of labour based on gender.

In many countries of the MENA region, women are bound to specific roles and tasks that align with social norms. Their labour often involves manual and physically demanding activities such as weeding and collecting water or fuel, particularly in rural and mountainous areas of countries like Morocco and Algeria (Abdelali-Martini, 2011). By contrast, men typically perform mechanised tasks such as ploughing and planting, which are less time-consuming and allow them to also engage in non-agricultural work. This division not only perpetuates gender segregation but also has an impact on the economic autonomy of women, as men are frequently responsible for marketing agricultural produce and managing the resulting income (Abdelali-Martini, 2011).

The prevalence of wage injustice further underscores gender segregation. Women, despite increasingly contributing to agricultural labour, are paid significantly less than men and often occupy seasonal, low-paid positions. Their tasks are less secure and more precarious compared to the permanent and technologically advanced tasks often reserved for men. While certain trends, such as male migration, occasionally disrupt these stereotypes, the overall wage gap remains a critical issue. Interestingly, large-scale commercial farms and export-oriented crop markets tend to exhibit smaller

gender wage gaps and better working conditions than smaller, family-owned farms, yet the reliance on cheap female labour remains widespread (Baruah & Najjar, 2022).

Cultural behaviours also shape workplace arrangements, such as the creation of gender-segregated environments, particularly in settings where interaction between unrelated men and women is restricted. In Morocco, for example (as in Qatar, see p. 27 of this thesis), women often prefer to work in women-only workplaces as part of a 'patriarchal bargain', minimising their contact with men outside their families. However, these arrangements are largely top-down decisions with minimal input from the women involved. While younger women may recognise these structures as institutionalised, their attitudes reflect a nuanced understanding of the risks associated with mixed-gender workspaces (Salem & Yount, 2019).

Moreover, stigmatisation further limits women's labour opportunities. In some cases, their involvement in agricultural work is viewed through a lens of societal judgment, reducing their ability to fully participate in the agricultural labour market (Jehouani & Meryem, 2023). Women's limited mobility in combination with societal expectations confine them to labour-intensive roles within sectors like vegetable and legume production, where manual labour predominates, while men dominate less labour-intensive and higher-paying mechanised activities (Abdelali-Martini, 2011).

Ultimately, gender segregation in agriculture is not merely a reflection of economic factors but is deeply rooted in cultural and social norms. The resulting disparities in roles, wages, and working conditions highlight the ongoing challenges women face in achieving equity in the agricultural sector (Baruah & Najjar, 2022).

Informal conditions

The agricultural sector in many regions operates heavily within informal frameworks, particularly where women's labour is concerned. This informality shapes hiring practices, working conditions, and societal perceptions, creating challenges that disproportionately affect women (Abdelali-Martini & Dey de Pryck, 2015).

One example of informality is the hiring of casual daily workers who are typically employed for tasks such as ploughing, herbicide application, and harvesting. These arrangements are often ad hoc and lack formal contracts, leaving workers with little to no job security (Abdelali-Martini & Dey de Pryck, 2015). Especially women are affected by the instability and low wages associated with these jobs. (Jehouani & Meryem, 2023).

Working conditions for female agricultural labourers are often shaped by seasonal demands. Women may start their day as early as 3:00 a.m. in spring and summer, or at 5:00 a.m. in fall and winter. Many gather at a public meeting point where they compete for job opportunities. This involves a literal race with women rushing to approach potential employers (Jehouani & Meryem, 2023).

The informality of women's labour is reinforced by its ambiguous recognition in official systems. Agricultural work, particularly in rural areas, is often excluded from formal statistics due to its seasonal and temporary nature, as well as its overlap with unpaid domestic tasks. Consequently,

women's economic contributions are poorly represented in national economic analyses, limiting the visibility of their role in agricultural production. This lack of recognition perpetuates inadequate regulatory frameworks, leaving women without proper legal protections or inclusion in broader labour policies (Abdelali-Martini, 2011).

Moreover, safety and welfare concerns for informal agricultural workers remain unaddressed. Many labourers, men and women, are unaware of their rights to safety measures or medical care in the case of workplace accidents. In cases of injury, farmers and labour contractors frequently conceal these incidents or provide only minimal emergency assistance, highlighting the lack of accountability and support in informal labour arrangements (Abdelali-Martini, 2011).

Recruitment process and transportation

The recruitment and transportation systems in the agricultural sector are critical to how labour, particularly female labour, is organised and managed.

Agricultural labour recruitment often revolves around seasonal demands, with peak periods such as April–May for weeding and harvesting crops like legumes and potatoes, and October–November for the olive harvest. Contractors play a crucial role in this process, maintaining relationships with client farmers through verbal agreements. They determine the number of workers to hire, allocate labour to specific farms, and decide the tasks for each worker. Workers, therefore, have no direct interaction with farmers and are supervised either by the contractor or a delegated supervisor, strengthening the contractor's control over the local labour market. This system allows contractors to efficiently respond to fluctuating demands while ensuring consistent work for themselves and their labour groups (Abdelali-Martini & Dey de Pryck, 2015).

For smaller farms, recruitment is mainly done locally, depending on a small circle of trusted farmers. In such cases, mobile phones have become a significant tool, enabling women to negotiate contracts without leaving their homes. This localised and technologically supported arrangement not only facilitates recruitment but also allows women to retain social prestige by limiting their mobility and public exposure (Abdelali-Martini & Dey de Pryck, 2015).

In Tunisia, women primarily move from rural to urban areas where agricultural land is cultivated for employment. Tasks assigned to female workers vary significantly depending on the region, crop type, and farm-specific practices, reflecting the diversity of agricultural labour demands (Jehouani & Meryem, 2023).

Transportation remains a critical yet often hazardous component of agricultural labour. Contractors are typically responsible for organising workers' transportation, along with their supervision and payments (Abdelali-Martini & Dey de Pryck, 2015). While improved road infrastructure has facilitated labour mobility in many regions, the quality of transport often remains inadequate. Overcrowded and poorly maintained vehicles are common, exposing workers, especially women, to significant health risks and physical vulnerability (Abdelali-Martini, 2011).

In some cases, the contractor-worker relationship is marked by exploitation, and in extreme scenarios, by physical violence and immoral practices, as documented in parts of Egypt (Abdelali-Martini, 2011). These conditions highlight the precariousness of transport and recruitment systems within the agricultural labour framework, which exacerbates the difficulties already inherent in informal employment arrangements.

Physical working conditions

Physical working conditions in the agricultural sector are often characterised by exhausting tasks, health risks, and inadequate protective measures, particularly for women. These challenges, compounded by the lack of formal protections, significantly affect the well-being of agricultural workers.

Women working in agriculture frequently endure serious health problems due to the physically demanding nature of their tasks and exposure to harmful substances. Weeding, harvesting, and working in greenhouses involve repetitive motions, prolonged bending, and heavy lifting, which lead to musculoskeletal disorders, back and knee pain (Adıbelli et al., 2022; Abdelali-Martini, 2011). Prolonged standing and repetitive bending, combined with working in extreme heat or strongly fluctuating temperatures, exacerbate these physical issues, making injuries and chronic pain common (Jehouani & Meryem, 2023).

Chemical exposure presents another major health risk. Pesticides and fertilisers, widely used to enhance crop yields, are often handled without adequate protective equipment such as gloves, masks, or appropriate clothing. This leaves workers vulnerable to allergic reactions, respiratory issues like asthma and bronchitis, and even long-term impacts on the nervous, endocrine, and reproductive systems (Adıbelli et al., 2022; Jehouani & Meryem, 2023). Studies also show that pesticide exposure during pregnancy increases the risks of miscarriages, stillbirths, birth defects, and developmental delays in children, including autism and reduced cognitive abilities. Issues such as menstrual irregularities, infections, stress incontinence, and spontaneous abortions are frequently reported. For example, women working in greenhouses often experience vaginal infections due to prolonged contact with contaminated surfaces. All this highlights the far-reaching consequences of unsafe working conditions (Adıbelli et al., 2022).

The absence of proper protective equipment and workplace safeguards compounds the risks faced by agricultural workers. Young girls employed in agriculture are particularly vulnerable, often subjected to physical abuse and left without information about workplace hazards or access to medical services (Abdelali-Martini, 2011). Moreover, the inadequate packaging and handling of agricultural chemicals heighten risks not only for workers but also for the environment and water supply (Jehouani & Meryem, 2023).

The workday for women in agriculture is often long and gruelling, with shifts extending up to 10 hours under close supervision. These conditions, combined with inadequate breaks and the lack of proper nutrition or hydration, contribute to extreme physical fatigue and stress. While employers may

provide water and tea, meals often consist of simple foods brought from home, reflecting the limited resources available to workers (Jehouani & Meryem, 2023).

Given these challenges, addressing the physical working conditions in agriculture requires comprehensive measures, including systemic changes (see chapter 9 of this thesis). Providing health education, counselling services, and regular health screenings for workers could minimise many of the risks (Adıbelli et al., 2022). Implementing legislative protections, such as mandatory use of protective equipment and ensuring social security is essential. Additionally, educating workers on the safe handling of chemicals and improving workplace ergonomics would enhance both safety and productivity (Jehouani & Meryem, 2023).

Social recognition and mental health

The lives of women working in the agricultural sector are marked by physical, psychological and social challenges resulting from the interplay of demanding work, societal expectations and limited recognition of their contribution to society. This double burden of intense physical labour and persistent social undervaluation has a significant impact on their well-being, mental health and self-perception.

Female agricultural workers face gruelling physical demands that often spill over into their family lives, leaving them exhausted and emotionally drained. Long working days contribute to a reduced quality of life and strained family relationships. Many women report a lack of energy and sexual drive to engage with their families or care for themselves, leading to increased tension and, in some cases, domestic violence. Verbal and sexual abuse by spouses has been linked to the stress women experience after long working days (Adıbelli et al., 2022).

This sense of overwork and dehumanisation is often articulated through metaphors. Women compare themselves to machines or trucks to describe their relentless work and the lack of recognition they receive. One participant poignantly remarked:

"*We are like a truck. When our children are asked what their mother's job is, they are ashamed and do not answer. They say their mother is a housewife. I'm not a housewife. I have a job that lasts more than eight hours, from morning to evening"*
(Adıbelli et al., 2022, p. 208).

This quote highlights the social invisibility of their work and its negative impact on self-esteem.

In addition to physical exhaustion, agricultural work exposes women to psychological stressors, including exposure to multiple neurological side effects of harmful chemicals, gender discrimination and economic insecurity, factors explained in the previous chapters. These stressors, mixed with early marriage and teenage pregnancy, contribute to depressive symptoms and feelings of vulnerability (Adıbelli et al., 2022; Jehouani & Meryem, 2023). Harassment in the workplace, humiliation by employers and lack of autonomy further intensify mental health problems and leave women feeling powerless to advocate for improved working conditions or personal rights (Abdelali-Martini, 2011).

While some women take pride in contributing financially to their households, especially those in leadership roles such as contractors, this empowerment is often muted by the unequal distribution of household responsibilities. Despite their earnings, women are still expected to manage domestic tasks and care, resulting in an overwhelming workload and limited personal agency. (Abdelali-Martini & Dey de Pryck, 2015).

A significant barrier to addressing these issues is the systemic undervaluation and lack of social recognition of women's work in agriculture. In regions such as MENA, where women's participation in agriculture has increased due to economic pressures and male migration, their roles are often classified as 'helping' rather than as independent labour. This systemic misclassification denies women the rights, entitlements and decision-making power afforded to their male counterparts (Baruah & Najjar, 2022).

This lack of recognition is reflected in national statistics, where up to 50% of women engaged in agricultural work are either not counted or classified as economically inactive. This statistical invisibility obscures their contributions and denies them access to critical benefits such as pensions and maternity protection (Baruah & Najjar, 2022). Even within their communities, women's work is often seen as secondary, reinforcing traditional gender roles and perpetuating their social marginalisation (Abdelali-Martini, 2011).

Systemic change is essential to address these challenges. Recognising women's agricultural work in national statistics and treating them as independent contributors to the economy can help to improve their status in society. Policies that provide social protection, such as protection against abuse, health insurance, maternity benefits, pensions and basic income, are crucial to improving their economic and psychological well-being. In addition, promoting societal awareness of their contributions and implementing gender-sensitive reforms can challenge traditional norms and give women the respect and recognition they deserve (Baruah & Najjar, 2022).

One participant's plea for government support sums up the urgency of these changes:

"*The government must support us, the women who work in greenhouses. Each of us must have health insurance. Our children should be able to say 'our mother is a farmer' without feeling ashamed. Please make the authorities listen to us*"
(Adıbelli et al., 2022, p. 208).

2.3.6 Prospects to empower women

The empowerment of women in the MENA region requires a multifaceted approach, targeting both the regularisation of women's work and the reduction of gender gaps. Efforts in these areas have the potential to enhance women's roles in economic, social, and political spheres, contributing to broader societal progress.

Regularisation women's work

Regularising women's work, particularly in the informal sectors like agriculture or the domestic sphere, is crucial for providing women with greater stability, recognition, and benefits. Programmes that formalise women's roles as casual agricultural or unpaid family workers, such as organising cooperatives or ensuring legal recognition as female farmers, could significantly improve their working conditions and economic security (Baruah & Najjar, 2022).

Public and private sector investments could generate socially acceptable jobs for women. By creating demand for women's labour, these efforts could lead to improved wages and better working conditions (Abdelali-Martini & Dey de Pryck, 2015). Additionally, providing health insurance and social protection tailored to women's unique occupational risks, such as injuries from home-based work or agricultural activities, is essential for ensuring decent work conditions. Raising awareness among policymakers and employers about women's labour contributions can further strengthen support for these initiatives (Abdelali-Martini, 2011).

Policies aimed at mechanising agricultural sectors must be implemented cautiously, as many women depend on manual labour for their livelihoods. For instance, women involved in lentil harvesting in Syria expressed concerns about losing their jobs if mechanisation replaced their roles. Ensuring that technological advancements are introduced responsibly and complemented by job opportunities for women can minimise these risks (Abdelali-Martini & Dey de Pryck, 2015).

Reduction of gender gaps

Reducing gender gaps in education, employment, and resource access is another essential step toward women's empowerment. Women in the MENA region consistently outperform men in educational attainment, yet this achievement does not translate into equal economic participation or control over resources like land and capital, for reasons already described in the previous chapters of this thesis (Baruah & Najjar, 2022). Addressing these disparities requires targeted efforts to eliminate barriers to women's workforce integration, including wage and employment discrimination, and to expand professional training opportunities customised to women's needs (Karshenas & Moghadam, 2001).

Improving access to and the quality of education, particularly in rural areas, is critical for narrowing gender gaps. Establishing primary schools in remote villages, providing financial support for secondary and college education, and ensuring equal quality with urban schools can significantly increase girls' enrolment and retention rates. Literacy programmes have already shown success in empowering rural women by improving their ability to use tools like mobile phones (see p. 123 of this thesis), which enhances their participation in economic and social activities (Abdelali-Martini, 2011). Furthermore, empowering women to participate in decision-making processes, both within households and in broader community organisations, can drive transformative change. Capacity-building programmes that raise women's awareness of their rights and equip them with leadership skills are vital. Additionally, fostering partnerships with gender-sensitive male leaders and

emphasising the mutual benefits of gender equality can help shift entrenched social norms (Abdelali-Martini & Dey de Pryck, 2015).
Economic policies must also consider the structural constraints imposed by patriarchal family systems. Structural adjustment programmes that reduce household income often force women to take on additional labour while maintaining their domestic responsibilities. Governments must address these pressures by integrating gender-sensitive measures into economic reforms, such as designing woman-friendly infrastructure, closing wage gaps, and promoting shared domestic responsibilities (Karshenas & Moghadam, 2001).

3. Research question and theoretical concepts

3.1 Research question

Building on the insights from the comparative literature review and addressing the significant research gaps identified, this thesis aims to assess and analyse the working conditions of women employed in the fruit and vegetable agriculture sector in Tunisia's *Sahil* region.
Most authors who have worked on this topic focus their research on individual areas such as socio-economic conditions or gender inequalities. What is often missing is a look at the interplay and interconnectedness between these areas from the perspective of an intersectional perspective with fluid identities. Furthermore, the voices of those affected, the women working in Tunisian agriculture, are rarely heard. This is where this study comes in, by contributing to close this research gap and by giving a voice to the women.
It is guided by the following research question:

⇒ *How do women working in Tunisian fruit and vegetable agriculture in the Sahil region describe their working conditions?*

To answer this question comprehensively, it is essential to examine several interconnected aspects interacting on three different levels: the micro, meso and macro level. First, the influence of power dynamics on agricultural working conditions must be explored. Second, understanding the broader socio-economic realities and inequalities faced by women in the country is critical, as these factors significantly shape their experiences in Tunisian fruit and vegetable agriculture.
Three sub-questions will further refine the focus of this research, with the theoretical framework of intersectionality providing a lens for analysing both the findings from fieldwork and from literature research:

◊ What kind of women are most likely to choose this type of work (socio-economic background)?

- ◊ How do current power dynamics, expressed as formal and informal inequalities, impact women in Tunisian fruit and vegetable agriculture?
- ◊ How are these inequalities counteracted?

By addressing these questions, the thesis seeks to provide a nuanced understanding of the challenges faced by women in this sector, how their experiences are shaped by broader systemic inequalities and what kind of countermeasures are taken and by whom.

3.2 Power relations

The dynamics of North African agriculture, shaped by neoliberal modernisation and structural inequalities, reveal systemic challenges that disproportionately affect marginalised agricultural workers, especially women. These challenges require a multifaceted theoretical framework to understand and address power hierarchies, labour vulnerability and environmental sustainability.

Building on the insights of Gertel and Sippel (2014) and their concept of flexicurity, mobilities – the time-space movements of workers and resources – are central to understanding the precarious conditions of seasonal agricultural workers. These mobilities embed human and food insecurity in already fragile livelihoods, where power imbalances and instability limit workers' capacity for resilience. Flexibility, or the ability to adapt to uncertainty, is constrained by systemic inequalities that prioritise efficiency over the security of vulnerable workers. The concept of flexicurity highlights the interplay between flexibility and insecurity, demonstrating how marginalised groups must constantly navigate conditions that expose them to greater risk while offering limited agency.

Temporalities, encompassing short, medium and long term impacts, underline the lasting social and economic consequences of these precarities. Vulnerable populations often bear the brunt of these dynamics, as the precarious nature of seasonal work perpetuates cycles of insecurity and exploitation (Gertel & Sippel, 2014).

Building on these ideas, the typology of power proposed by Rowlands (1997) provides a framework for addressing these inequalities. 'Power from within' (change) emphasises self-awareness and intrinsic motivation, 'power to' (choice) focuses on access to resources and decision-making power, 'power over' (control) calls for structural change to address inequalities, and 'power with' (community) emphasises the role of solidarity and collective action in promoting change with the soft skills already mentioned and discussed in chapter 1.3.3 of this thesis. These dimensions represent areas in need of systemic reforms that amplify the voices of marginalised groups and challenge entrenched hierarchies.

Sharp's (2011) concept of subaltern geopolitics further highlights the importance of centring marginalised communities in global agricultural discourses. Recognising their agency and lived experiences challenges the traditional Western-centric narrative that only the great powers needed to be understood and calls for equitable frameworks that confront the unequal distribution of

precariousness. Similarly, Gibson-Graham et al. (2013) argue for a reframing of economics to prioritise interdependence and ethical decision making that addresses both social and environmental justice. This perspective calls for a reassessment of agricultural systems that exploit labour and degrade ecosystems, promoting inclusivity and sustainability.

Holmes and Ramirez-Lopez (2023) complement these approaches by exposing the vertical labour hierarchies within agriculture, where social and economic structural inequalities stratify workers based on race, class and citizenship. These hierarchies are symbolically represented through vertical metaphors, such as being 'up' or 'down', which signify different levels of visibility, power and vulnerability within the farm structure. Workers at the top, such as farm managers, are more visible to external observers and have greater control over their time and resources, while those at the bottom, particularly undocumented and female field workers, endure extreme hardships, including poor pay, health risks and lack of social protection (see chapter 6 and 7 of this thesis).

Central to Holmes and Ramirez-Lopez's (2023) analysis is the concept of structural violence, which highlights how larger socio-economic forces, rather than malicious behaviour by individuals, create and perpetuate inequalities. Market pressures, coupled with systemic racism, classism, sexism and anti-immigrant sentiment, foster vulnerability throughout the labour hierarchy, affecting each level differently but perpetuating suffering on all levels. For example, while managers face market competition and economic uncertainty, pickers face the constant threat of job loss and health problems, often exacerbated by exploitative practices such as random wage changes.

The authors also highlight the role of unofficial policies and social norms in reinforcing these inequalities. According to them, gender segregation is not a deliberate act on the part of farm owners, but rather a product of structural forces and the anxieties they generate. They argue that these inequalities are further perpetuated by differences in the access to resources such as education and social connections, which limit upward mobility and reinforce existing divisions.

Ultimately, the metaphor of the 'grey zone' captures the moral complexity of the dynamics of farm work. It reflects how individuals at all levels, from managers to pickers, are embedded in a system driven by larger structural pressures. This theoretical framework offers critical insights into how labour hierarchies operate under conditions of structural violence, with broader implications for understanding inequality in agricultural systems globally (Holmes & Ramirez-Lopez, 2023). These hierarchies mirror the North African context, where marginalised workers endure harsh conditions, precarious employment and limited upward mobility.

Taken together, these three theoretical perspectives, focusing on flexicurity, power relations and the dynamics in labour hierarchies, highlight the need to dismantle entrenched power structures in agriculture, promote solidarity and rethink economic systems. By addressing the insecurities experienced by people in rural livelihoods, fostering collective action, and centring the experiences of the marginalised by giving them voice, a more equitable and sustainable agricultural system could

be envisioned. Such efforts require both ethical commitment and systemic change to challenge the neoliberal paradigm and amplify the voices of those excluded from decision-making processes.

Power relations in Tunisia's agriculture

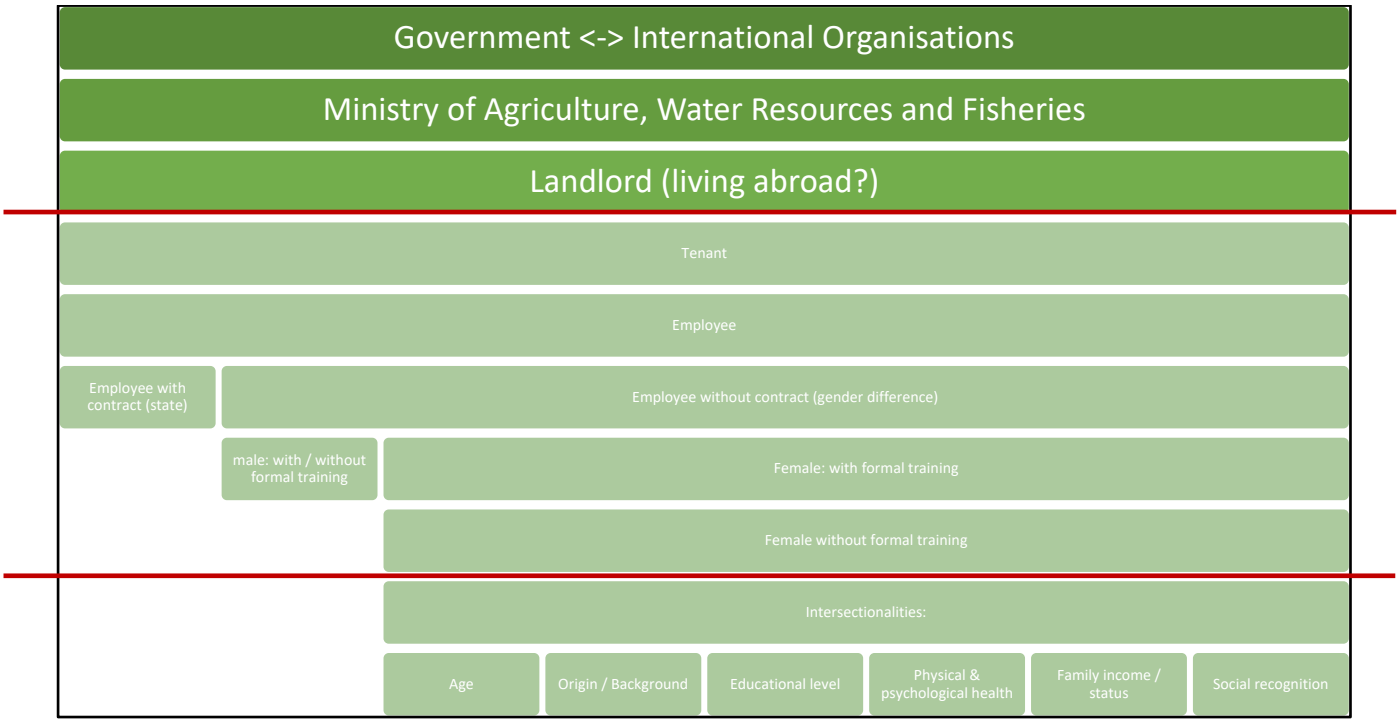


Figure 6: Power relations in Tunisia's agriculture (own graphic).

Turning to the region of my research, the *Sahil* region in Tunisia, women working in the agriculture section face a wide range of challenges and opportunities, which are influenced by a variety of factors interacting on several levels. The figure above serves as a visualisation of existing power relations affecting women within Tunisia's agriculture in general. It is based on Holmes and Ramirez-Lopez's (2023) labour hierarchy scheme on the farm (p. 51), and my own research findings on the different levels within the hierarchy. The aim is to visualise three different areas of power. At the individual micro-level (bottom), women's daily decisions regarding work, resource use, and survival are influenced by a range of personal, social, and economic factors and their intersection. At the meso-level (middle), the structure of farms and workplaces affects women's economic participation. In the *Sahil* region, the balance of power within the agricultural sector can influence access to resources, credit, and decision-making roles, potentially perpetuating existing hierarchies. At the macro-level (top), national policies and international frameworks shape the broader landscape, with laws, trade agreements, and development programmes having the potential either to empower women by providing resources and protections, or to impose limitations through regulatory control. It is therefore important to understand these layers in their interconnectedness and with their dynamics if we are to gain a full picture of women's roles in agriculture – how they persist, resist, and adapt

within a system that is constantly shifting. Furthermore, Gaillard (2018) argues that the analysis of the connections between farm structure, operations, and performance, and their influence on food security among adult women in the region is crucial, as this relationship is influenced by factors such as individual household members' incomes, and women's empowerment.

3.3 Feminist geography and Intersectionality

Feminist geography, a critical branch of human geography, examines the intertwined relationships between gender, space, and power, emphasising how social categories intersect to perpetuate inequalities. Emerging from feminist theory, it challenges traditional geographic frameworks that often prioritise male-centred perspectives, such as trade or geopolitics, while neglecting the domestic sphere and caregiving roles commonly associated with women. By bringing gender into focus as an analytical lens, feminist geography critiques the masculinist bias in conventional approaches and highlights the ways in which societal norms shape spatial dynamics (Valentine, 2007).

Central to feminist geography is the concept of intersectionality, which underscores how identities like race, gender, class, and sexuality intersect to create overlapping systems of oppression and privilege. Rather than treating women as a homogeneous group, intersectionality reveals the nuanced ways individuals, made up of all these identities, interact within specific spatial and social contexts. For example, rural working-class women often face compounded challenges tied to gender, class, and geographic origin, which differ significantly from those encountered by urban middle-class women. This framework allows feminist geographers to move beyond singular analyses of patriarchy to explore the interconnectedness of sexism, capitalism, and other forms of oppression (Valentine, 2007).

The spatiality of power and inequality is another key focus of feminist geography, highlighting how geographic structures, from urban design to rural labour divisions, reflect and reinforce hierarchies. Traditional labour markets, for instance, often perpetuate economic inequalities by assigning roles based on gendered assumptions, such as coding physically demanding jobs as male or devaluing women's work as secondary (Gregson et al., 2014; Coe et al., 2007). In rural Tunisia, for example, unpaid caregiving and agricultural work performed by women reinforce binary categorisations of men as breadwinners and women as homemakers, revealing how patriarchy and capitalism intersect to sustain systemic inequalities (Gregson et al., 2014).

Feminist geography also explores embodied geographies, examining how spatial arrangements shape physical and emotional experiences. A woman navigating a poorly lit urban street at night and risking harassment, for instance, embodies the lived reality of gendered power dynamics in public spaces (Hyndman, 2001). Similarly, the globalised feminisation of labour, such as women taking on precarious domestic work roles in wealthier nations, demonstrates how economic and spatial inequalities converge to exploit marginalised groups (Coe et al., 2007).

Through its intersectional lens, feminist geography not only critiques systemic inequalities, but also identifies avenues for resistance and empowerment. Marginalised groups, particularly women, are actively challenging spatial injustices through grassroots activism and community organising. For example, women in low-income neighbourhoods are reclaiming public spaces by advocating for safer urban environments or creating informal networks for economic survival (Oberhauser, 2008).

Thus, the overall scientific aim of this thesis is to connect feminist geography and the concept of power relations with the lived experiences of women in Tunisian agriculture, challenging binary and Western-centred narratives of development. By focusing on 'what women experience and need', this thesis seeks to uncover the multifaceted ways in which gender and power intersect within the agricultural sector. But, instead of seeing women only as victims of social inequalities, as some authors do, it sheds a light on the unique and active roles women play in navigating their circumstances, also referred to as women's agency. In particular, it shows how binary categorisations such as 'breadwinner' and 'homemaker' fail to capture the complexity of Tunisian women's roles, as they often embody both simultaneously.
Based on my own research findings, the vulnerabilities and insecurities inscribed in rural livelihoods, characterised by seasonal work, are further analysed. By focusing on the skills, resources and activities essential to livelihoods, it aims to unravel how social categories are lived and experienced in dynamic and multifaceted ways. The ultimate aim is to advance geographical thinking by interrogating the relationships between multiple intersecting identities and how they are continually made, unmade and remade in fluid and often precarious contexts of power relations. This approach underscores the importance of understanding each woman's experience as unique and contributes to a broader discourse on equity and social justice.

3.4 Positionality

As a researcher, my positionality is shaped by a variety of factors, including my social identity, cultural background, educational experiences and personal values. Acknowledging these influences is crucial to understanding how they shape my perspective and interactions within my field of study.

Social identity and cultural background

I am a cisgender woman of mixed origin, born to a Swiss mother and a Tunisian father. I grew up in a racially and socio-economically mixed neighbourhood in Zurich and was exposed to a wide range of cultural practices and socio-economic realities. This and my bicultural upbringing have given me a unique perspective on issues of ethnicity, identity and inequality. My personal experiences in dealing with different cultural contexts have sharpened my sensitivity to the nuances of intersectionality and the complex interplay of different social identities.

Educational experiences

My educational path took me to the University of Zurich, where I successfully studied geography and Arabic to the bachelor's degree. My academic training in human geography and social sciences has strengthened my commitment to understanding and addressing inequalities in different areas and stages of life. It has also provided me with a theoretical framework and methodological tools to support my research, particularly in the areas of social justice/injustice and equality/inequality.

Personal values and beliefs

My commitment to social justice is deeply rooted in my personal values and beliefs. I believe in the fundamental dignity and worth of all individuals and am driven by a desire to contribute to a more just and inclusive society. This concern informs my approach to research, leading me to prioritise participatory methods that empower marginalised communities and amplify their voices. I am particularly drawn to qualitative research methods that allow for a deeper exploration of lived experiences and the complexities of human behaviour. For this reason, the analysis within this thesis is informed by frameworks taken from feminist geography and the concept of power relations.

Positionality in research

In my field research, I am aware of the power dynamics that exist between researchers and participants, especially when working with vulnerable populations. I strive to mitigate these imbalances through a reflexive approach, constantly examining my own biases and assumptions. I am committed to ethical research practices that respect the autonomy and agency of participants and seek to create spaces where their stories and perspectives are valued and appreciated.

My positioning as a researcher is a dynamic and evolving aspect of my identity. It is shaped by constant self-reflection and engagement with different perspectives. By acknowledging and expressing my positionality, I aim to conduct research that is not only rigorous and credible, but also socially responsible and transformative.

For this master's thesis in particular, I believe it has been an advantage to have personal experience of the socio-cultural aspects of Tunisia as a half-Tunisian, Arabic-speaking woman, and to be able to assess, to some extent, the relevance of norms and values to the lives of the women working in Tunisia's agriculture.

4. Methodology

For this Master thesis, I applied the following methods:

4.1 Literature research

Literature in English, German, French and Arabic was comparatively analysed and discussed. This literature focused on women working in the agricultural sector of Tunisia as part of the MENA region and the multiple factors that shape their working conditions. The analysis was guided by two key focal points: first, the climatic conditions and agricultural dynamics in the Mediterranean and MENA regions, and second, the livelihoods and inequalities experienced by women in these areas. It is hoped that the findings will provide a basis for a deeper understanding of the realities faced by women working in agriculture in the governorates of *Monastir* and *Sousse* in the Central East of Tunisia.
This thesis addresses a significant research gap in scientific literature by shedding light on the under-researched intersectionality of gender, agriculture and socio-environmental conditions in the region. By combining the theoretical concepts explained in chapter 3 with the findings of own field research, it provides valuable insights into the challenges and inequalities faced by women working in the agricultural sector as well as their prospects for the near future, offering a nuanced perspective on a critical but often overlooked issue.

4.2 Data collection

4.2.1 Geographical localisation

The study lasted five months and included three separate field trips of roughly 2 weeks each in January, February and May 2024. This approach allowed for the observation of different agricultural seasons in the governorates of *Sousse* and *Monastir* in Tunisia's *Sahil* region in the Central East of the country. This area is known for its fruit and vegetable production on small and medium-sized farms, which rely heavily on the labour of Tunisian women, but has been significantly under-researched by academics. Only two studies[3] included the governorate of *Sousse*, and none included *Monastir*. This, and the fact that I am originally from the city of *Monastir* and have relations there, led me to choose these two regions for my fieldwork.

[3] *Bensaad, 2019* & *Al-Atar, 2023*

4.2.2 Facebook

Facebook plays a central role in this research, both as a source of data and as a context for understanding social and political dynamics in Tunisia. Its widespread use, interactive capabilities and unique features make it an indispensable platform for examining how digital technologies influence social behaviour, collective action, information distribution and education and training opportunities. In Tunisia, Facebook is the most popular social networking platform, reaching a penetration rate of 22.49% in 2011, with 1.5 million users already active in 2010 (Malin, 2010; Alhindi et al., 2012). This is significant given that Tunisian internet users at the time of the surveys were predominantly young (over 60% under the age of 25) and socially and politically highly engaged, with many using Facebook as their primary means of communication and organisation. The platform's introduction of an Arabic interface in 2009 further expanded its accessibility, opening the digital sphere to a wider demographic (Malin, 2010).

Facebook's demographic reach extends beyond individuals to include the public sphere, for example businesses, political actors and activists. Its functions as a political tool, information platform, and media outlet are particularly relevant to this study (Marzouki et al., 2012). For businesses, Facebook is essential for communication and marketing, reflecting its broader social integration. These dimensions make Facebook not just a social network, but a critical node for understanding Tunisia's digital landscape (Ltifi, 2014).

Facebook's role during the Arab Spring, particularly the 2011 Tunisian revolution, underscores its importance to this research. As a decentralised platform not controlled by government, Facebook provided an accessible, non-hierarchical means of collective communication and action. It enabled the rapid distribution of information, facilitated the organisation of protests, and created a public sphere for the exchange of ideas and the inspiration of activism (Alhindi, et al., 2012).

The platform's ability to amplify emotional density – allowing individuals to experience others' perceptions of events – played a key role in mobilising citizens. For example, the self-immolation of Mohamed Bouazizi in December 2010 triggered widespread protests because the organisational infrastructure and social networks on Facebook were already in place (Alhindi et al., 2012). These dynamics illustrate how Facebook can accelerate the flow of information and emotions, foster collective consciousness and enable leaderless revolutions (Marzouki et al., 2012).

In addition to its role as a tool for political mobilisation, Facebook functions as a critical platform for information exchange. The quality and credibility of information shared directly influences user engagement, with credible sources promoting sustained use and trust in the platform (Ltifi, 2014). This aspect is particularly relevant to this research, as it sheds light on how individuals evaluate and interact with information in a digital environment.

The platform also offers a wealth of user-generated contents, providing insights into public sentiment and collective behaviour. During the Tunisian revolution, Facebook emerged as a key medium for sharing uncensored videos and images, providing a counter-narrative to state-controlled media. This

dual function as a communication tool and alternative media platform underscores its transformative potential in shaping public discourse and facilitating social change (Alhindi, et al., 2012).

While Facebook provides a rich source of data for this research, it is crucial to address ethical considerations. The decentralised nature of social media platforms such as Facebook makes them vulnerable to surveillance and manipulation, particularly in authoritarian contexts. As such, this research adopts a critical perspective that acknowledges both the empowering and potentially exploitative aspects of digital media (Alhindi, et al., 2012). Al-Attar's (2023) findings are clear: the majority of women working in Tunisia's agricultural sector have lost the desire to speak to the media and civil society. Despite extensive media coverage, no advantage was brought to them, and their identity was shown all over the country.

Furthermore, the collection and analysis of Facebook data must respect user privacy and ensure that findings are presented responsibly. This includes contextualising the data within its social and cultural framework to avoid misrepresentation and misinterpretation. The significance of Facebook for this research lies in its multifaceted role as a social, political and information platform (Alhindi, et al., 2012).

4.2.3 Semi-structured interviews

For the fieldwork, a qualitative interview guide was developed, and revised several times, specifically directing at women working in the fruit and vegetable sector in the governorates of *Monastir* and *Sousse*, Tunisia (for the interview questionnaire see Appendix, p. 151 to 157 of this thesis). Based on Helfferich's (2019) theoretical approach, the guide combines narrative exploration of participants' experiences with targeted, guideline-driven questions. The aim was to gain a deeper understanding of women workers' livelihoods and working conditions seen from their perspectives. Some of the questions have been aligned with those used in online interviews in other studies to allow for comparison of findings across different regions of Tunisia.

As a cornerstone of qualitative research, semi-structured interviews provide a structured yet adaptable framework for collecting detailed and meaningful data. They balance prepared questions with the flexibility to follow the natural flow of conversation, allowing for the exploration of complex issues while remaining aligned with the research objectives (Mattissek et al., 2013).

According to Flick (2011), the guided interview format is more focused than open-ended discussions and, especially in its problem-centred variant (Lamnek, 2010), incorporates theoretical concepts into a flexible guide. The guide acts as a pre-planned structure, outlining key issues in interrelated sections without being overly fixed. This ensures that the interviews address core societal or theoretical concerns while leaving room for spontaneous discussion (Mattissek, 2013).

For this study, the interview guide was carefully prepared in Arabic to ensure effective communication. Wherever possible, standardised structures were used to enhance comparability, and simple yes/no questions were avoided unless they were paired with follow-up questions.

Effective semi-structured interviews rely on active listening, cultural awareness and a patient, non-judgmental approach. A focus on understanding the participant's perspective involves interpreting verbal and nonverbal cues such as tone, pauses, and body language. For example, pauses are seen as moments of reflection rather than disengagement, and often provide valuable insights (Helfferich, 2011). Contextual details – such as the interview setting, participants' behaviour and environmental factors – were documented in a research diary, supplemented by photographs, which, however, due to the protection of the dialogue partners, do not provide any identities for deeper analysis.

The interviewer's role is to guide the conversation while allowing participants the freedom to share their experiences. This involves using guiding questions to introduce new topics and sustaining questions to keep the narrative flowing. Closing questions such as "Is there anything else you'd like to add?" allow participants to share additional insights, while acknowledging potential fatigue in longer interviews (Helfferich, 2011).

Participants were selected through purposive and snowball sampling. Specific geographical areas were visited and links were made through local networks, often facilitated by relatives and acquaintances of the author of this thesis who knew farmers. While this approach provided access, it also introduced selection bias, potentially limiting the diversity of perspectives. Expert participants were recruited through a more formalised process, with interview guides shared in advance to ensure clarity and preparedness.

Expert interviews were designed to trigger specialist knowledge, contextualised by professional experience, to serve as a reference point for interpreting broader findings. Challenges such as reluctance to share critical opinions or straying off topic were addressed by avoiding overly sensitive or irrelevant questions and maintaining a neutral tone throughout the interviews (Mattissek, 2013).

Cultural and situational factors played an important role in shaping the dynamics of the interviews. Non-verbal cues such as gestures and eye contact were context dependent and not interpreted directly. Instead, greater emphasis was placed on vocal elements such as tone, pace and pauses, as well as emotional expressions such as laughter or sighs, which often conveyed additional meaning. Recognising that participants' truths were situational, the interviewer avoided judgmental questions such as "Why?" and instead used open-ended prompts to encourage detailed, subjective narratives (Helfferich, 2011).

The interviews were carefully documented. Detailed logs recorded contextual factors such as the participant's appearance, estimated age, and interview setting. Brief pre- and post-interview notes provided additional situational insights and reflections and formed a crucial part of the analytical process. The data were later coded[4] to identify patterns and themes relevant to the research questions.

[4] With MAXQDA24

In total, I conducted 14 interviews (one-to-one and group interviews). The interviewees included two male employers, a male expert, the director of the agricultural training centre in *Jemmal*, a female expert, the head of the rural women's monitoring unit within the agricultural development delegation, and 16 Tunisian women involved in fruit and vegetable production. The interviews with the women workers were conducted either in the back seat of my own car or during lunch breaks at the agricultural site. My interviewees chose their preferred location from the two. It is important to note that I made it clear in advance that no male employers or workers were to be within earshot. The reasons why interviews were not conducted at the women's home, at my home or in a café are as follows: None of the interviewees invited me, and in order to avoid them having to accommodate me with the culturally expected hospitality, I did not mention this option myself. I did not invite them to my home because all the interviewees were either under time pressure during their break or tired after work and eager to go home. The reason for not conducting the interview in a café was firstly that the women were at or coming from work, so naturally their clothes were dirty and sweaty. Secondly, I wanted to make sure that my interviewees felt free to express themselves avoiding the risk of other people overhearing our conversation. So, I did not expect them to appreciate a public place.

The interview with the employers was conducted on their farm in the early evening after work. The interviews with the experts were conducted in their offices at the Ministry of Agriculture, Water Resources and Fisheries in *Monastir* and at the training centre in *Jemmal*, at a time of their choosing. All participants agreed to have their interviews digitally recorded. The interviews lasted on average 30 minutes with a range from 11 to 60 minutes, resulting in a total of 8 hours of recorded material.

The interviews were conducted in Tunisian dialect, with the experts occasionally speaking in a mixture of Arabic and French. The recordings were transcribed and translated into English by hand in accordance with the ethical guidelines of the University of Zurich.

4.2.4 Ethics

Throughout the study, participants' anonymity and confidentiality were rigorously protected. Identifying information was excluded from transcripts and data storage, and non-verbal communication was only noted when it did not compromise privacy. Participants were fully informed of the purpose and aims of the Master's thesis prior to the interviews. Their participation was entirely voluntary and they were free to withdraw at any time. All translations were done in person and thoroughly checked for accuracy.

Ethical considerations were fundamental to this qualitative research, particularly given its focus on human dialogue partners. The study adhered to the principles of respect, cultural sensitivity and fairness. Informed consent, anonymity, reflexivity and awareness of power dynamics were prioritised throughout the interview process. Verbal consent was obtained by taking into account the varying literacy levels of the participants and the cultural context in which written consent was less valued. Respect for cultural preferences was integral; all participants explicitly requested that photographs

only from the far could be included and names must be excluded, a condition that was strictly adhered to.

Interview guides were shared in advance with the experts from the Ministry and the training centre in *Jemmal* to ensure that only comfortable and appropriate questions were asked. This approach fostered trust, encouraged openness and respected participants' autonomy and boundaries (Mattissek et al., 2013). Reflexivity, as outlined by Vorbrugg et al. (2021), played a key role in the research, acknowledging that knowledge is always co-constructed and shaped by the positionality of the researcher. The impact of my identity, background and social positionality, as outlined in chapter 3.4 of this thesis, on my interactions with the participants was critically examined in order to uphold ethical research standards.

The interplay of gender, social status (class belonging) and cultural differences influenced how participants perceived me and our interactions. Active listening, creating a supportive environment and demonstrating genuine curiosity, encouraged participants to share their experiences openly. The concept of embodied knowledge and skills, which values lived experiences and emotions in shaping understanding, was integrated into the analysis. Emotions such as discomfort or hesitation were contextualised rather than dismissed (Vorbrugg et al., 2021).

Recognising the inherent power imbalances in the researcher-participant relationship was another key aspect which shaped the ethical framework of this study. Participants' agency was respected by incorporating their concerns and feedback into the research design. Interviews were conducted at times and locations convenient to participants, with trusted intermediaries providing initial explanations to ensure clarity and comfort. In keeping with cultural norms, male relatives or female acquaintances of mine often facilitated initial contacts, avoiding external pressure or disruption to cultural practices. All participants were treated as collaborative dialogue partners rather than subjects (Mattissek et al., 2013).

The experts and employers were given a small gift (Swiss chocolate) in appreciation of their time. All 16 workers were paid for their time, 10 TND (Tunisian Dinar) for the short questionnaire and 20 TND for the regular questionnaire, which lasted 30 to 50 minutes. The payment corresponded to a daily wage. The decision to pay the participants was made in full awareness that in ethical research guidelines this could be seen as a manifestation of a top-down power imbalance. However, after the first interview, the interviewee was asked what working women would most appreciate as a form of validation, with options such as chocolate, train tickets, supermarket or pharmacy vouchers, or money. As women struggle daily with their low wages, I was advised to give a day's wage.

Despite the creation of a positive and neutral interview setting, the assurance of anonymity and voluntary participation, the jargon-free interview conduct and active listening in favour of the participants' open speaking, this study also has limitations and is aware of them. Recruitment often relied on male facilitators, a fact that may have influenced the diversity of perspectives. In addition, participants' links to state institutions or adherence to cultural norms may have influenced their

willingness to discuss critical or sensitive issues. These challenges were carefully considered in the interpretation of the findings in order to maintain the integrity of the study.

4.3 Data analysis

In order to structure the interview data effectively, transcription was followed by a systematic coding process. Coding, a crucial step in qualitative analysis, helps to conceptualise and integrate data into theoretical frameworks (Strauss & Corbin, 1998). This study used a mixed methods approach, combining deductive (concept-driven) and inductive (data-driven) coding. Deductive codes, informed by the research questions and existing literature, aligned the analysis with established knowledge, while inductive codes emerged directly from the data, revealing unexpected patterns or phenomena (Rädiker & Kuckartz, 2019). This combined strategy balanced theoretical grounding with the flexibility to capture data-driven insights.

Framework analysis was used to organise research themes into a structured matrix, summarising topics within systematically categorised themes (Rädiker & Kuckartz, 2019). The categories, developed as interpretive tools rather than fixed outcomes, ranged from factual data (e.g. age, education) to abstract analytical categories like power relations that acted as interpretive 'road signs' (Kuckartz & Rädiker, 2023). This structured approach provided coherence and richness to accurately represent the findings.

The development of categories followed a multi-stage process aligned with the research objectives. While most categories, such as work regularisations and health risks due to various factors, were predefined based on the research questions and existing literature, others, including soft skills, mental health, and programmes such as *Ahmini* and the training centre in *Jemmal*, emerged during the analysis to reflect specific contextual findings (Kuckartz & Rädiker, 2023). Categories were structured hierarchically to ensure clarity and manageability in interpretation (Rädiker & Kuckartz, 2019).

During the interview analysis, inequalities emerged as a prominent theme during the initial review of the transcripts. A codebook was developed to capture general and gender-specific inequalities. Open codes were created to record visible inequalities, such as the impact of climate change and socio-economic factors, representing common experiences. These were later refined into focused codes addressing significant invisible aspects such as gender roles, mental health, educational level and social connections (soft skills).

Qualitative data analysis combines interpretive, structural and systematic techniques to derive meaningful insights. This study adopted an interpretive approach, which emphasises understanding through transcription, coding, typification, and interpretation (Mattissek et al., 2013). Interviews conducted in Tunisian Arabic were transcribed and directly translated into English, a time-consuming process that required full concentration. Transcriptions included timestamps and interpretive notations such as tone, emphasis, and external interactions. Pauses were marked with [...] and

inaudible sections were labelled 'mumbled' in order to preserve context and minimise bias. The data were then coded and organised into systematic categories.

To deepen the analysis, qualitative contrasts were applied to compare statements across cases and groups, revealing patterns and differences in responses (Rädiker & Kuckartz, 2019). In addition, code configuration analysis explored multidimensional patterns by examining the co-occurrence of codes within the same segments or documents. This layered approach enriched the analysis and highlighted complex relationships within the data.

5. Quantitative results and limitations

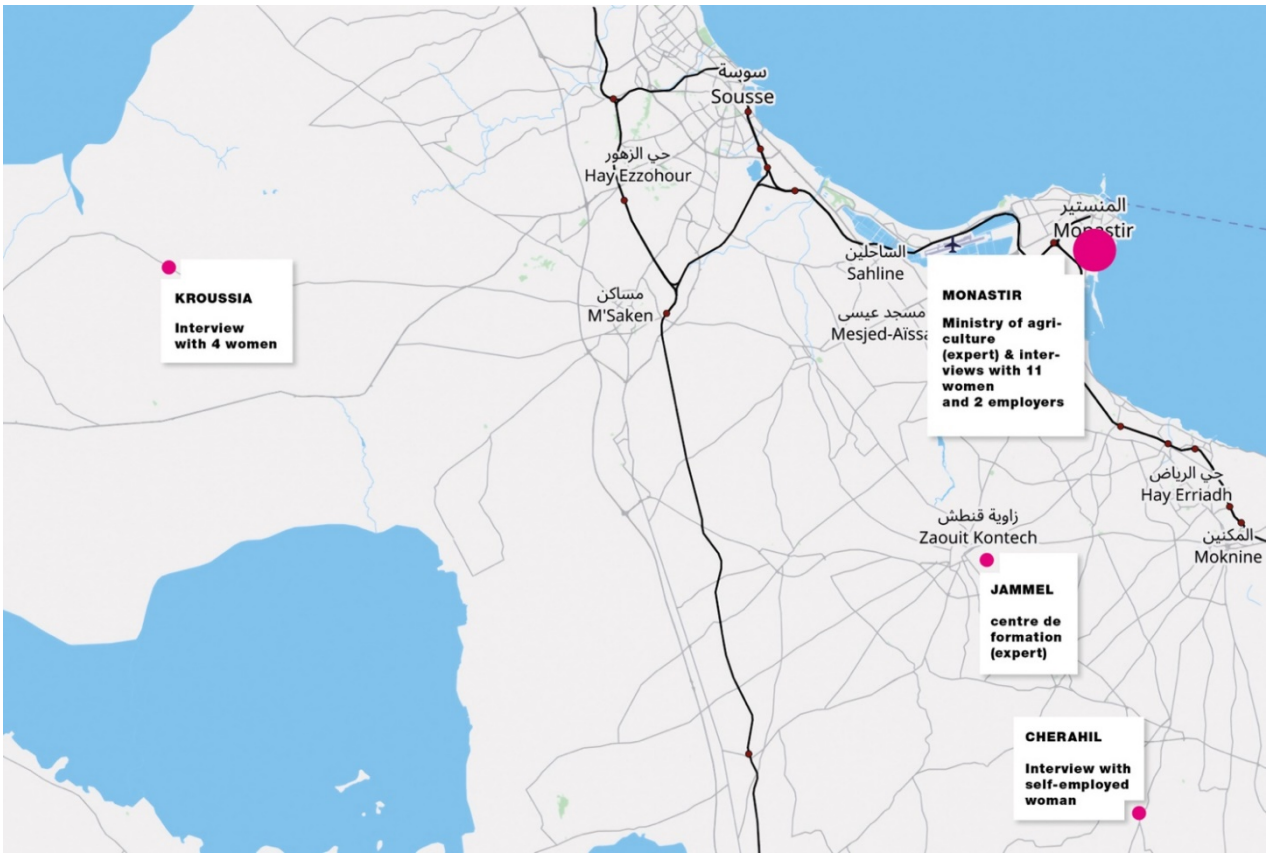


Figure 7: Localisation of 14 interviews (OpenStreetMap, 2024).

It turned out from the field research that women workers in Tunisian fruit and vegetable agriculture were a heterogeneous group with different ages, marital statuses and backgrounds. However, for all respondents, the situation is generally fragile and unstable.

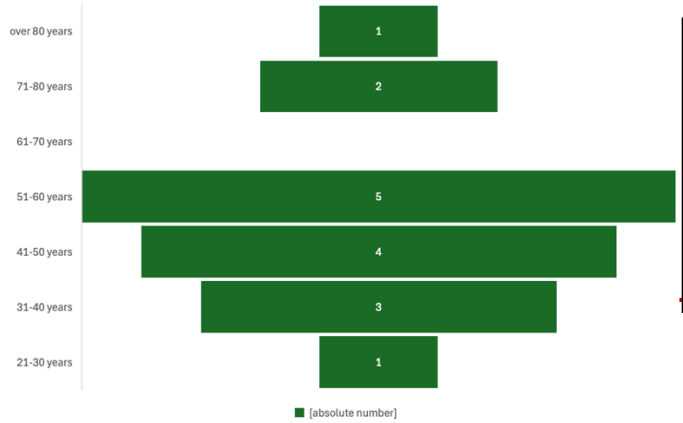


Figure 8: Age of female interview partners (own graphic).

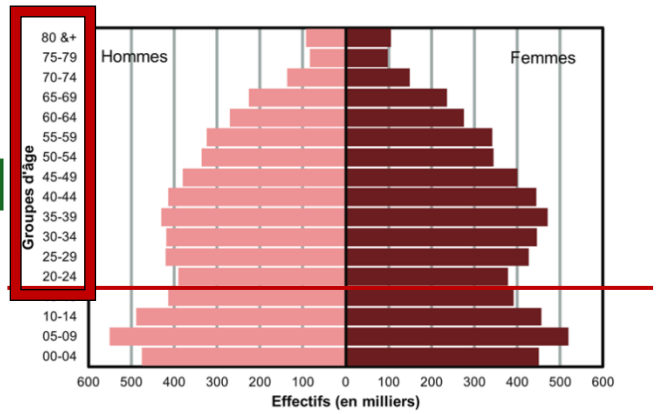


Figure 9: Population Pyramid, 2021 (Ins, 2022).

The average age of the 16 female interviewees in this study was approximately 51.4 years. The age distribution among them largely mirrored the population structure, with the smallest representation found among women in their twenties and those over seventy. The study conducted by the FTDES surveyed 500 women across ten governorates, yielding comparable results regarding the age distribution. The study found that 8% of the participants were below the age of 18, 21% fell within the 18 to 40 age bracket, 61% were between 40 and 60 years of age, and 10% were above 60 (Al-Attar, 2023). However, while the general population pyramid (see Figure 9) typically sees a concentration around 40 years, in the context of the present research, the peak was observed at 55 years.

Tunisia has now completed its fertility transition, but due to the rapid pace at which this shift occurred, it has significantly influenced the demographic structure. As a result, the country is facing an accelerated ageing process, leading to a growing proportion of individuals over 60 and a decreasing ratio of working-age to non-working individuals. Traditionally, elderly care has been the responsibility of family members, particularly children, but this emerging demographic trend is expected to pose substantial economic and social challenges in the near future (Gastineau, 2012).

Most of the female dialogue partners worked more than 2/3 of their lives in agriculture and often began at a young age. The exact length though is unknown because some women couldn't remember the exact age when they started working in agriculture. Sometimes they changed the governorate or grew up working for their father's agricultural site.

Among the 16 women, only one finished the Baccalauréat (BAC), yet did not complete the diploma. The five women who attended primary school all dropped out after 3 to 6 years, and six did not respond because this question was not asked due to time constraints during their lunch break.

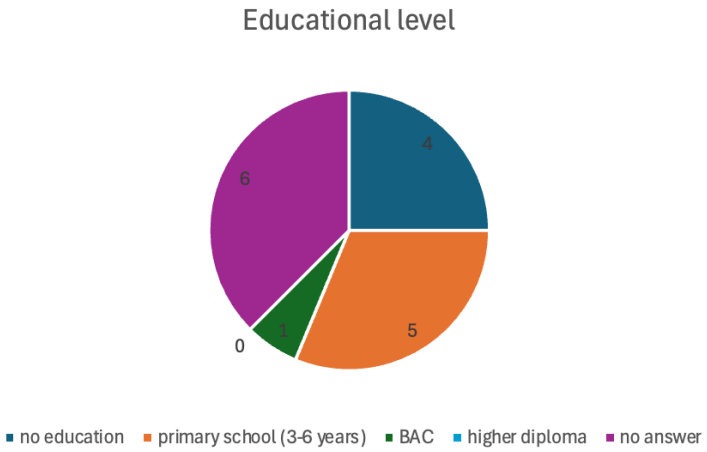


Figure 10: Educational level of female interview partners (own graphic)[5]

The FTDES report revealed a similar distribution, with 29% of surveyed women having received no education, 49% having only received a primary education, 12% having completed a BAC, and 10% having obtained a university diploma. With regard to marital status, the report showed that 2% were not married, 55% were married, 14% were widowed, and 4% were divorced (Al-Attar, 2023).

In the course of the study, it was revealed that 50% of the female interview partners were married, whilst a further 25% had been widowed, therefore relying on their own working ability to support themselves financially. It was also noted that two women, despite being married, lived apart from their husbands. One participant elaborated on the dynamics of her relationship, citing her husband's residence in Europe as a contributing factor to their unfulfilled marital and divorce documents in progress. The second woman had separated from her husband due to his alcoholism and aggressive behaviour, following his several years of living in Europe illegally.

The two women who were not yet married also had no children. It is noteworthy that only 25% of the female participants in the interview had more than two children, thus aligning the demographic structure, as previously discussed.

[5] BAC (French school system) is similar to the Swiss Matura diploma and is completed after 17 years of school, without repetition.

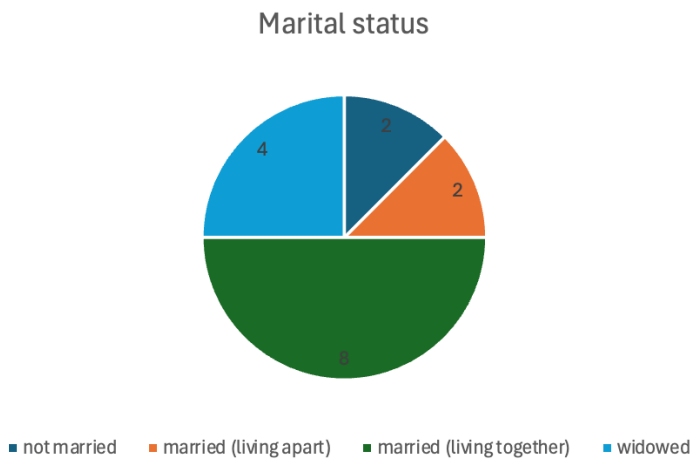


Figure 11: Marital status of female interview partners (own graphic).

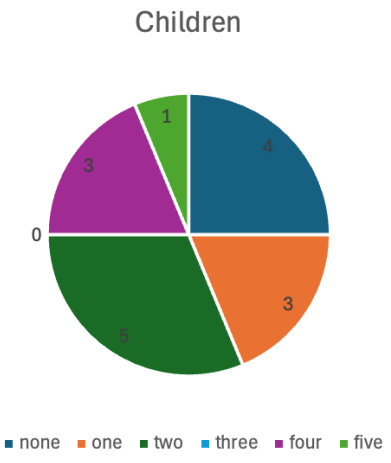


Figure 12: Children of female interview partners (own graphic).

All participants (100%) stated that they work without a contract, that although their income is insufficient, they have to work in agriculture because of their socio-economic situation and the lack of other job opportunities, and that their work is seasonal. The dependence on the different seasons is also evident in the variety of products that the women workers plant and harvest, such as: tomatoes, different kind of peppers, courgettes, aubergines, cucumbers and melons inside the greenhouses, and potatoes, pumpkins, onions, olives, almonds, grenades, apples, cactus fruits and figs outdoors, supplemented by beekeeping.

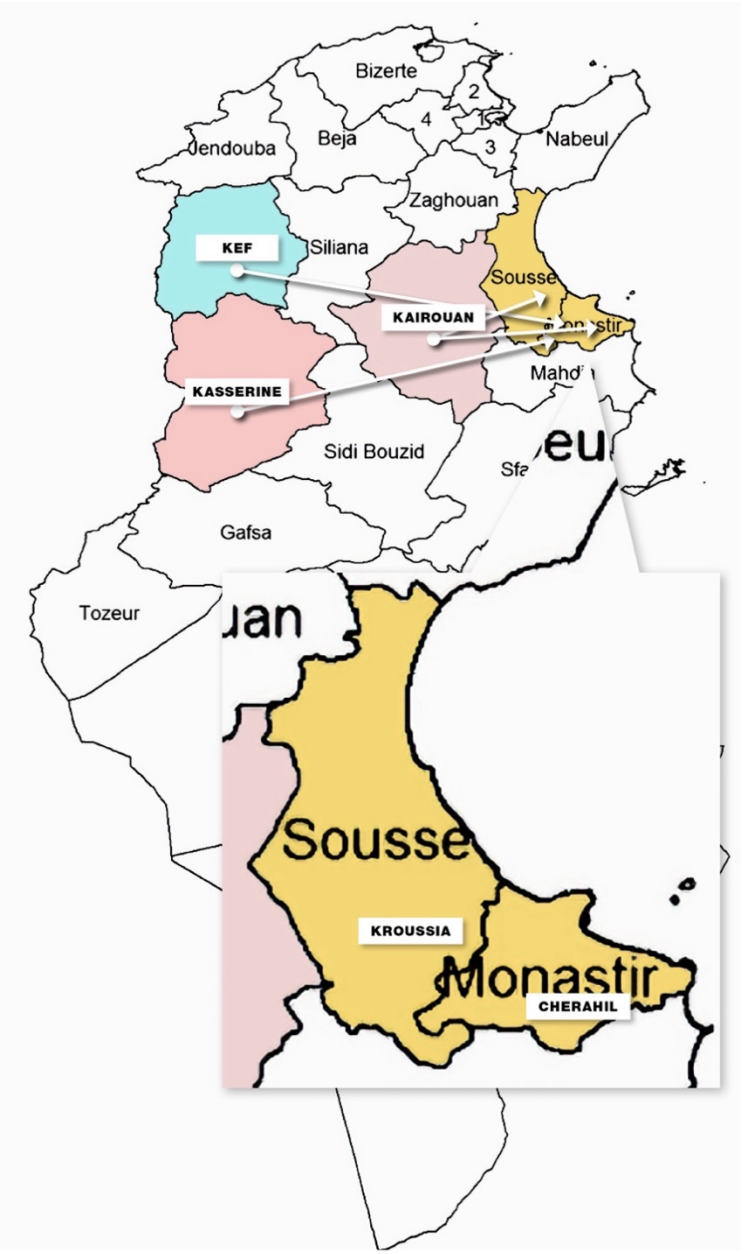


Figure 13: Internal migration of female interview partners (own graphic).

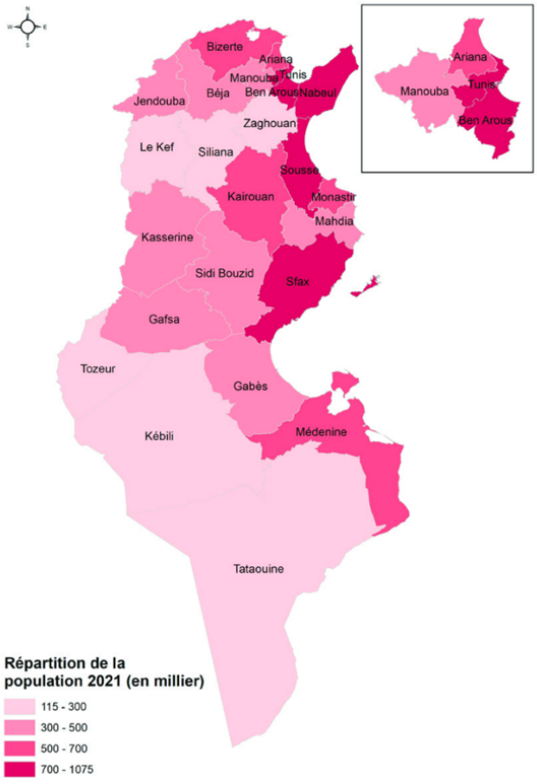


Figure 14: Population distribution, 2021 (Ins, 2021).

The women interviewed came from various regions but shared similar socio-economic backgrounds. Eleven of them originated from impoverished rural areas within Tunisia — two from *Kef*, three from *Kairouan*, and six from *Kasserine* — before relocating to the governorates of *Monastir* and *Sousse* in search of agricultural work. They unanimously described the economic conditions in their hometowns as even more challenging, with limited to no employment opportunities. In contrast, four women from *Kroussia*, already recognised for its agricultural activity, remained in their region for work, while the self-employed woman from *Cherahil*, who owns her own agricultural land, did not need to migrate.

The FTDES report clearly demonstrated that only 10% of the surveyed female workers in the agricultural sector came from the city; 90% came from rural parts of whom a total of 700,000 women originating from the governorate of Kairouan. The deterioration of infrastructure, economic and social fragility were identified as the primary push factor (Al-Attar, 2023).

This pattern of movement from the country's interior to the coastal areas aligns with data collected by the National Institute of Statistics on population distribution in 2021. The central-western region, the poorest in Tunisia, has a poverty rate exceeding 32%, that is nearly three times higher than that of coastal areas. In comparison, the highest poverty threshold in Tunis is only 14%, highlighting stark regional inequalities. These disparities disproportionately affect vulnerable groups, particularly rural women, who face higher levels of economic hardship (Al-Manaei, 2016). As Al-Attar (2023) note, young people became increasingly reluctant to enter the workforce in financially weak and fragile circumstances, and join the movement to immigrate to more urban states.

Urban and peri-urban agriculture (UPA) has increasingly been recognised as a viable response to food insecurity, unemployment, and environmental challenges (Rejeb, 2011). Additionally, some rural populations reside in communal peri-urban areas, which many studies classify as part of the rural environment, further blurring the distinction between urban and rural settings (Gueddana, 2021).

Based on the content analysis of the interviews carried out by me, the following themes emerged:

— Formal inequalities such as working conditions, recruitment process, transportation, contracts, work regularisation, physical conditions, health risks due to climate change, and exposure to pesticides, and social security.
— Informal inequalities such as economic conditions, gender inequalities due to the 'Patriarchal Bargain', gender roles in the public and private/home space, and mental health.
— The potential of resources such as education and training, soft skills and the influence of ongoing training programmes with a special focus on the training centre in *Jemmal*.

In addition to my own interviews, ten further interviews with various women (Facebook, 2023; 1; Facebook, 2023; 2; FTDES, 2024; 1) and a report from the FTDES (Al-Atar, 2023), all focusing on their working conditions in agriculture were included in the discussion of this thesis. They were taken from online sources and literature from Tunisia. The following map shows the locations of these and other researches:

Localisation[6]	Governorates
Greater Tunis (capital region)	Manouba (2)
Northeast	Nabeul, Zaghouan, Bizerte
Northwest	Jendouba (Fernana, Babouch, Feija National Park), Kef, Beja, Siliana
Central East (*Sahil* region)	Sousse, Mahdia, Sfax
Central West	Sidi Bouzid, Regueb, Kairouan, Kasserine
Southeast	Medenine, Tataouine

Figure 15: Researched areas concerning the conditions for women working in the agricultural field (own graphic, 2024).

Some of this literature was written in Arabic or French and often not peer-reviewed according to UZH standards. Therefore, it is only included for comparison in the analysis of my own research results and not as a scientific basis.

Some sources also covered other agricultural work (livestock, pasture, home produce) and the transportation conditions, but as similar vulnerabilities were found for rural women working in agriculture, the findings were included in the discussion of this thesis as well.

Limitations

This Master's thesis has several theoretical and empirical limitations and potential weaknesses that affect the results or generalisability of the study. Therefore, to provide transparency and clarify the context in which the results should be interpreted, the main limitations are explained below.

One challenge arose from the insufficient scientific research carried out within the region and the applicability of the theoretical framework. Due to the limited amount of peer-reviewed literature and the unique socio-economic, cultural and political landscape of Tunisia, it is difficult within the

[6] Tunisian National WASH Accounts (2017).

framework chosen for this study to draw comparative research findings from outside Tunisia and apply them to the working conditions of Tunisian women in the agricultural sector. Furthermore, unreliable and partly outdated national statistics as well as a high number of unreported cases meant that statistical figures from the National Statistics Office could only be included in the discussion and not in the theoretical basic research.

In addition, due to the limited scope of this Master's thesis, not all phenomena covered by the theoretical frameworks, such as transnational exchange, economic interdependence and international cooperation, that further influence women's working conditions in Tunisian fruit and vegetable production, could be taken into account. Furthermore, , the depth of data collection and analysis was constrained by the limited time and narrow regional focus of the field research. To fully capture the working conditions of Tunisian women in agriculture, year-round data collection and inter-regional comparisons are essential. The restricted duration of this study may have overlooked seasonal variations or broader regional dynamics.

This is where future research can start, as will be explained in the Outlook (see chapter 9).

A fourth challenge stems from the limited regional focus of my research question and its generalisability. Despite my extensive literature review and the findings from my interviews, the region is geographically limited to the governorates of *Monastir* and *Sousse,* within the *Sahil* region in the Central East of Tunisia, limiting the applicability of the conclusions to a broader Tunisian or North African context.

Another limitation is the small sample size due to the limited availability of participants. The comprehensiveness of the field research was limited, on the one hand, by drought resulting from the current lack of rainwater, which reduced the number of active agricultural fields producing fruits and vegetables. On the other hand, it was difficult to access enough participants due to logistical issues such as illness, overtime or family commitments by the interview partners. In addition, some female workers were out of reach due to the unwillingness of their employer to let me speak to them. Although this is seen as a limitation of this thesis, I argue that it may also reflect the precarious and unstructured nature of women's work in agriculture, their dependence on the employers and fear to lose their job.

There were also some missed opportunities for expert input. Experts such as a local agribusiness expert working for the government, the director of *Ahmini*, the person in charge of *SwissContact* in Tunisia, and a young student from *Sousse* currently studying agriculture at the university were not available for consultation despite original commitment, so unfortunately their views could not be included in the study.

Finally, some limitations were identified in the way the interviews were conducted. Early interviews revealed difficulties in eliciting detailed narratives for certain questions, highlighting the need for repetitive adaptation of the questionnaire. Creating a pressure-free environment by emphasising the voluntary nature of participation and allowing participants to skip questions created a comfortable

environment but may have influenced the depth of responses. Some questions were accidentally repeated when asked again later in the guide due to oversight, which may have affected participant engagement. The situational use of terms, such as *Hamdoullah* ('Thank God'), by me occasionally felt contextually inappropriate but generally fostered a positive relationship, with participants treating the researcher warmly, like a family member. In some cases, responses were unintentionally confirmed or validated by findings from other interviews, which could have introduced bias into participants' responses.

While this Master's thesis provides valuable unique insights into women's working conditions in Tunisian agriculture, the theoretical and empirical limitations outlined above should be considered when interpreting the findings. Future research should address these gaps by broadening geographical coverage, increasing sample size, and exploring seasonal and transnational influences on women's working conditions.

6. Formal situation

6.1 Labour laws

Labour laws in the MENA region have evolved to address gender disparities, with nearly all countries enacting national legislation prohibiting wage discrimination based on gender. Many have also committed to international frameworks, such as the International Labour Organisation's (ILO) Decent Work Agenda, which promotes equal pay for equal work and emphasises principles of fairness, security, and social protection (ILO, 2015). However, significant gaps in implementation, enforcement, and monitoring persist, allowing gender gaps to remain widespread across various sectors, including agriculture (Baruah & Najjar, 2022).

The enforcement of existing laws and raising awareness among employers are critical steps toward ensuring equal pay and improving working conditions for women. For rural agricultural workers, particularly women, who increasingly form the main labour force for reasons elaborated below in more detail (see chapter 7.1 of this thesis), this includes addressing issues such as informal employment, sexual harassment, and insufficient social protections. The principles of decent work, although largely unenforced in the agricultural context, provide a framework for achieving these goals by advocating fair treatment and improved labour rights (Baruah & Najjar, 2022).

In Tunisia, labour laws offer an illustrative case of both progress and challenges. The country's legal framework is characterised by a duality of constitutional guarantees combined with practical difficulties in translating these guarantees into concrete benefits for rural workers, particularly women working in sectors like fruit and vegetable agriculture. While Tunisia aligns with universal

human rights principles[7], practical barriers, as elaborated later in more detail, must be overcome to achieve meaningful equity in the workplace.

Overall, Convention No. 129 (1969) on Labour Inspection in Agriculture, ratified by Tunisia, provides a reliable framework for the monitoring and enforcement of labour standards in the agricultural sector. Its main provisions aim to safeguard workers' rights, improve their working conditions and ensure the enforcement of labour laws, thereby contributing to the well-being and dignity of agricultural workers (ILO, 1969). The table below lists the most important rights in force for Tunisian women who work in the fruit and vegetable sector.

Legal division	Law in detail	Citation
Right to Work	— Article 40 of the Tunisian Constitution of 2014 guarantees the right to work for all citizens, emphasising fair and dignified conditions and wages — The State is required to take necessary measures to ensure equal access to employment opportunities	Laiadhi, 2021
Right to Training	— Article 39 of the Tunisian Constitution of 2014 guarantees the right to training for all citizens.	Employment Code, 2024
Minimum Wage and Salary Regulations	— The guaranteed minimum agricultural wage is set at 17.664 dinars per day for workers aged 18 and above, with additional bonuses for skilled and specialized workers	Law 768, 2022
	— Payment must be regular and legally compliant	Employment Code, 2024
Working Hours and Resting Times	— The legal workweek is capped at 48 hours, with additional pay for overtime — Workers are entitled to 24 hours of weekly rest and defined paid leave periods	Employment Code, 2024

[7] Most relevant Human Right's articles for Tunisian women working in the agricultural sector:
Article 02: No discrimination
Article 13: Freedom of movement and residence
Article 17: Right to own things
Article 22: Right to social security
Article 23: Right to work
Article 24: Right to rest and holiday
Article 25: Right of social service
Article 26: Right to education

	— According to the labour code an annual non-working holiday in agricultural activity should be granted and suspended with pay	Al-Manaei, 2016
Protection of Women and Children	— Special conditions govern the employment of women and children under 18, including rest periods and restricted night work — Labour inspectors can intervene if the work exceeds the child's physical capacity or involves hazardous conditions	Employment Code, 2024
Maternal and Parental Rights	— Mothers are entitled to 30 days of paid maternity leave, with an optional extension of 15 days upon presenting a health certificate	Employment Code, 2024
	— Protections aim to balance workforce participation with family obligations	Laiadhi, 2021
Workplace Safety and Hygiene	— Employers must provide a safe working environment, including necessary measures to minimise risks from machinery, chemicals, and other hazards — Workwear must be provided annually, including shirts, shoes, and headgear	Employment Code, 2024
Agricultural Worker Protections	— Agricultural workers have specific protections, such as regulated transport services and safeguards against exploitation	Law 51, 2019
Social Security	— Agricultural workers are entitled to social security benefits, including healthcare, maternity, disability, and pensions	Law 30, 1960
	— Decrees regulate and occasionally expand these rights, adapting them to economic shifts	Law 32, 2002
	— "The State guarantees free treatment for those who have lost their support, and for those with income limits. It guarantees the right to social coverage" (Tunisian Constitution, article 38, chapter of Rights and freedoms)	Al-Manaei, 2016
Combatting Gender Discrimination	— Article 46 of the Constitution mandates the State to protect and promote women's rights, ensuring parity in elected assemblies and measures to end violence against women	Laiadhi, 2021

	— Law Nr. 58 (2017) addresses gender-based violence, highlighting prevention, punishment, and victim support.	Law Nr. 58, 2017
Child Labour Regulations	— Employment is generally restricted to individuals aged 16 and below. However, children aged 14 can work under specific conditions, provided it does not interfere with their education	Employment Code, 2024
Termination of Employment	— Contracts must include defined start and end dates, along with clear terms for termination — Workers absent due to illness or force majeure retain employment rights for up to three months, ensuring job security in emergencies	Employment Code, 2024
Right to Collective Bargaining	— Article 35 and 36 of the Tunisian Constitution states that "freedom to form parties, unions and associations is guaranteed" and "the right to strike, is guaranteed..."	Al-Manaei, 2016
	— Labour unions play a significant role in negotiating fair wages and working conditions, fostering intergroup solidarity — The constitution encourages collective action to address workplace inequalities	Laiadhi, 2021
	— The Law 2020-30 on social and solidarity economy aims to achieve social justice and a fair distribution of wealth, as well as formalising the informal economy	Gueddana, 2021

To gain a comprehensive understanding of the challenges faced by women in Tunisia's agricultural sector, this chapter draws on French and Arabic literature, much of which is not peer-reviewed and has therefore not been included in the state of research above. These sources, combined with a comparative analysis of my own findings, provide a nuanced perspective on the formal and informal inequalities that continue to shape rural women's experiences. By examining the structural barriers causing many of these inequalities, the discussion seeks to highlight the reasons for the persistent marginalisation of women and the urgent need for policy reforms and societal shifts that recognise, protect, and fairly compensate their labour.

This analysis is grounded in the theoretical frameworks explained in the first part of this thesis that explore power relations, intersectional inequalities, and spatial dimensions at different levels (see chapters 3.2 and 3.3). On a micro-scale (for the three levels exemplified as areas of power, see p. 42 of this thesis), the focus is on individual resources and agency, examining how women navigate constraints and opportunities within their immediate environment. At the meso-scale, the role of farms and workplaces is considered, shedding light on how labour structures and social hierarchies

impact women's economic participation. Finally, at the macro-scale, systemic forces, including national policies, economic conditions, and broader socio-political dynamics, are analysed to illustrate the interconnected factors shaping women's roles in agriculture.
Through this multi-layered approach, the chapter aims to not only expose existing disparities but also explore potential pathways toward greater inclusion and empowerment. Recognising women as key actors in Tunisia's agricultural and economic landscape is crucial to fostering sustainable and equitable development in the sector.

6.2 Formal inequalities

Due to weak oversight, irregular labour inspections, and insufficient legal protections the effectiveness of Tunisia's progressive labour laws is limited (Laiadhi, 2021).
Women workers in the country's agricultural sector continue to face systemic barriers (Bajec, 2020) and experience inequality on multiple levels, both formally and informally. Legally, they struggle with restricted access to land ownership, financial resources, and decision-making processes, reinforcing their dependency on men and limiting their economic mobility (Najjar & Baruah, 2024). Government programmes designed to support farmers frequently exclude women from training opportunities or confine them to low-paying seasonal jobs with little long-term security. Socially, entrenched patriarchal norms further restrict their autonomy, leaving many to work in informal conditions without contracts and fair wages (Al-Manaei, 2016).
Although women now make up 70% of Tunisia's agricultural workforce, for reasons explained in chapter 2.2.6, only 18% are officially registered, meaning that the vast majority remain in precarious employment with no access to formal labour protections (Ministry of Agriculture, Water Resources and Fisheries, 2022). Their participation in the economy does not necessarily translate into greater agency; instead, they remain dependent on male landowners or intermediaries, reinforcing existing power hierarchies. Climate change has further exacerbated these inequalities, as rural women lack access to the resources necessary to adapt to droughts, soil degradation, and water shortages — factors that disproportionately impact their ability to sustain agricultural livelihoods (Najjar & Baruah, 2024).
The socio-political shifts following the Arab Spring and the COVID-19 pandemic further exacerbated these challenges. While rural women played a crucial role in maintaining food supply chains throughout the crisis, their labour conditions deteriorated as economic instability increased and access to healthcare and social protections became even more limited (Bajec, 2020). Despite their resilience, their work remains largely invisible in national and international statistics, preventing them from being adequately considered in policy making for economic development (FAO, 2023).
The historical trajectory of Tunisia's agricultural sector has also shaped the formal inequalities faced by rural women today. The socialist modernisation efforts of the 1960s and 1970s led to the creation of large agricultural cooperatives, which, while intended to improve efficiency, often resulted in small-

scale farmers losing their land and access to essential production resources (Brandenburg, 2024). This legacy of land dispossession continues to limit women's financial independence, leaving them with few options beyond precarious and exploitative work under no or unstable contracts.
Due to high urban unemployment and limited state support, many have no choice but to accept low-paid jobs under harsh working conditions, often exceeding the legal limits of nine hours per day and extending up to 13 hours in periods of extreme weather (Brandenburg, 2024). Their economic dependence further reduces their bargaining power. In addition, broader economic pressures — such as rising costs for water, fodder, and fertilisers — intensify these hardships, as landowners often shift financial burdens onto workers, and so deepening the cycle of exploitation (Brandenburg, 2024).

6.2.1 Working conditions

6.2.1.1 Recruitment process

It is important to note that the recruitment process for women in Tunisia's agricultural sector is largely informal and unregulated. It appears that, in contrast to other employment sectors, agricultural work does not fall under official job opportunity frameworks, which regrettably leaves women without access to structured hiring processes. According to Al-Manaei (2016), for instance, in *Sidi Bouzid*, women were reported to have secured their employment exclusively through kinship networks and private agreements, rather than through formal employment offices.
This informal and unregulated recruitment process reported in literature appears to align with my own research findings. All of my dialogue partners, the two experts, the two employers, and all the sixteen female workers confirmed that they found their agricultural work options through social connections to other women, employers or kins.

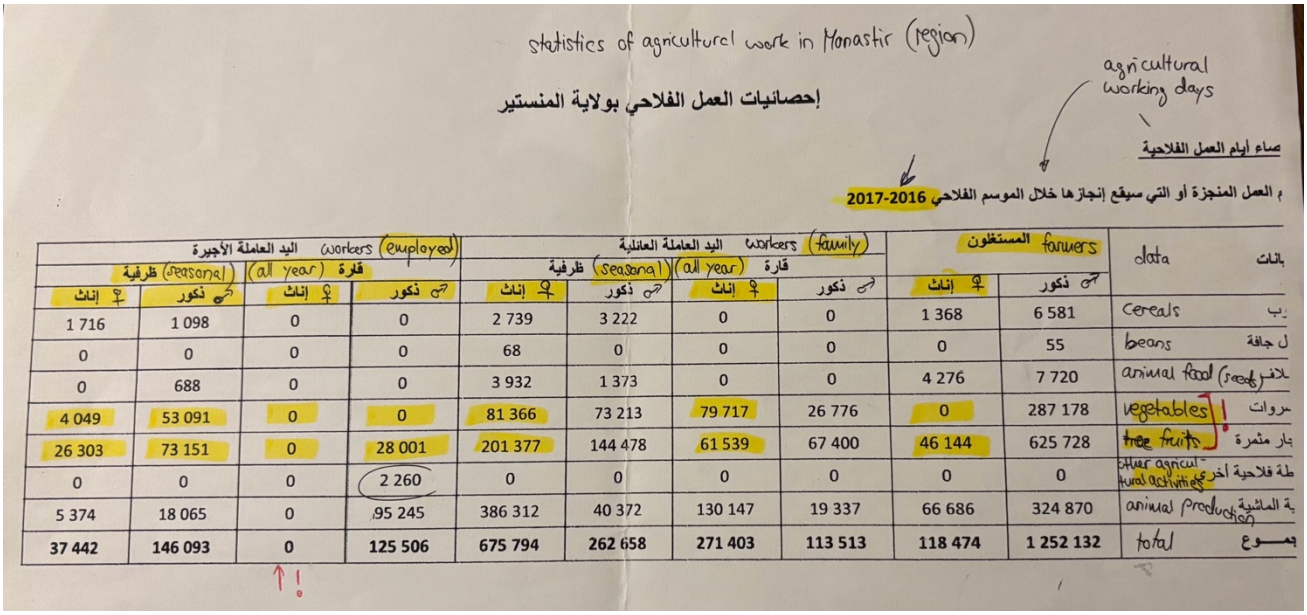
"*I find them from before. They come and ask for work. They come to the agricultural sight. And when you know a woman, women normally know each other, you just tell her 'I have work for 1 week, if you know another woman call her'. They know each other, it's like a circle. And I also call my friend who also employs women and if he has no work he just sends them to me. He needs them for tomorrow and the day after, and then I need them for two days. The employees go round in this area*" (Employer2, Pos. 65).

This reliance on personal connections for employment limits opportunities for those without strong social ties or soft skills (see chapter 2.3.3 in this thesis) while also exposing workers to potential exploitation, as there are no formal legal protections.

"*… But not regularly, 3 days with him and then 4 days with another, exhausting*" (W[8]3, Pos. 28).

[8] W = Woman

There seems to be a division between permanent and temporary workers, which could perhaps be seen as a reason for the precarious nature of women's employment in agriculture. It is estimated that only around 15.1% of female agricultural workers have permanent positions, with the majority being hired on a temporary basis (Bensaad, 2019). This corresponds to a certain extent with the 18% that are officially registered.



statistics of agricultural work in Monastir (region)

إحصائيات العمل الفلاحي بولاية المنستير

agricultural working days

عداد أيام العمل الفلاحية

م العمل المنجزة أو التي سيقع إنجازها خلال الموسم الفلاحي 2017-2016

اليد العاملة الأجيرة workers (employed)				اليد العاملة العائلية workers (family)				المستغلون farmers		بيانات data
ظرفية (seasonal)		قارة (all year)		ظرفية (seasonal)		قارة (all year)				
إناث ♀	ذكور ♂	إناث ♀	ذكور ♂	إناث ♀	ذكور ♂	إناث ♀	ذكور ♂	إناث ♀	ذكور ♂	
1 716	1 098	0	0	2 739	3 222	0	0	1 368	6 581	cereals حبوب
0	0	0	0	68	0	0	0	0	55	beans قرعيات جافة
0	688	0	0	3 932	1 373	0	0	4 276	7 720	animal food (feeds) علف للحيوانات
4 049	53 091	0	0	81 366	73 213	79 717	26 776	0	287 178	vegetables خضروات
26 303	73 151	0	28 001	201 377	144 478	61 539	67 400	46 144	625 728	tree fruits أشجار مثمرة
0	0	0	2 260	0	0	0	0	0	0	other agricultural activities أنشطة فلاحية أخرى
5 374	18 065	0	95 245	386 312	40 372	130 147	19 337	66 686	324 870	animal production الإنتاج الحيواني
37 442	**146 093**	**0**	**125 506**	**675 794**	**262 658**	**271 403**	**113 513**	**118 474**	**1 252 132**	total المجموع

Figure 16: Statistics of agricultural work in Monastir (region) (Ministry of Agriculture, Water Resources and Fisheries, 2016-2017).

The statistics above from 2016 to 2017 provide further insight into the number of women working in the agricultural sector (vegetable, fruit tree) of the governorate of *Monastir*. It becomes obvious that women appear to work significantly more as seasonal than as permanent workers. It is also interesting to note that there appears to be a significantly higher proportion of women working within the family unit than as employees, leaving them within the patriarchal system with limited decision-making power. This finding corresponds with findings from the literature research and emphasises the importance of social (family) networks in finding a job It is important to note, however, that this statistics only take into account part of the agricultural workforce in the governorate of *Monastir*. It excludes many women, such as the self-sufficient woman I interviewed near *Cherahil*, who was working alone on her father's land. This point was also highlighted by the expert from the Ministry of Agriculture, who kindly provided me with the statistics in question, albeit without any official citation. She explained that most of these numbers were conducted through in-person visits by herself and her team.

It is important to acknowledge that many of these women accept such working conditions due to economic necessity, with few viable alternatives available to them. Employers are known to favour younger women, typically under the age of 40, for their perceived physical endurance, while avoiding hiring educated women or trained agricultural specialists in order to keep wages low. According to

employer 2, women working in the agricultural sector can learn without having studied, which is seen as a positive aspect. They learn how to harvest a tomato by experience, as it should be easy to understand (Pos. 157). This preference may unintentionally exclude women with formal training or higher education, which could inadvertently contribute to the devaluation of their skills and contributions in the sector (Bensaad, 2019). The ministries' expert also noted the tendency to rely on a woman's 'suitability', highlighting the need for a more inclusive and equitable approach.

"*They want them of course young and not pregnant. He, the one employing them, he's choosing/picking them out, because she, the woman is just dependent to work. That's how it is*" (Expert2_Ministry, Pos. 13).

It is fair to say that agricultural work can be inconsistent and unstable for many, with numerous women working as daily or seasonal labourers on large farms, often shifting between different employers. Subject to informal recruitment methods and without steady employment, these women may find themselves in a cycle of economic insecurity, unable to plan for long-term stability or negotiate better working conditions (Bajec, 2020).

It is interesting to note that none of the women with whom I had the opportunity to speak were recruited through or in contact with an intermediary, also called *samsar* in Tunisian dialect. Research suggests that such intermediaries play a role in the distribution of women between farmers, thereby regulating supply and demand. This suggests that women working in fruit and vegetable agriculture in Tunisia's *Sahil* region may not be as dependent on male intermediaries as women living in remoter rural areas with longer, and much more unsafe distances to their workplace.

"*He's our neighbour…. Expect from this farmer we don't go anywhere else. Only with him. His place is our place*" (W18/W19 _onlineInterviews, Pos. 84).

Additionally, many of my dialogue partners ascribed themselves decision-making power to choose their own workplace, where and with whom they feel most comfortable. They expressed a preference for being actively involved in the selection of their work, rather than being chosen without having any input into the decision (W11, Pos. 56). According to Woman1, they support each other in avoiding exploitative work arrangements (Pos. 82/133), which suggests that the social connections may be important in preventing exploitation and enabling individuals to choose to leave 'bad' employers and stay with 'good' ones for many seasons (W8 & W9, Pos. 156/157). But there are also women who can arrange themselves well, as Woman16 testifies:

"*Whoever calls me I'll go to him. I don't dislike anyone I work with everyone. Everyone is good with me. I work and get paid. That's about it. Importantly that everything gets on well. And truthfully they really like me (laughing). So when someone likes and accepts me I work with him*" (W16, Pos. 34).

It has been observed that there appears to be a higher demand for female workers during the harvest season than the number of actual applications (Employer1, Pos. 37 & Employer2, Pos. 40). This could potentially have a further positive effect on women's ability to decide on their workplace, as the harvest is time-sensitive and must be completed on time.

6.2.1.2 Transportation

For many women working in Tunisian agriculture, transportation is not just a logistical necessity — it is a daily struggle marked by risk, exploitation, and structural inequality. Most female farmworkers do not have their own means of transport, and so rely on informal intermediaries, known as *samsar* or *karhabaji*[9], who connect them to employers and provide transportation for a percentage of their already modest wages (Bajec, 2020; Al-Manaei, 2016). While this system ensures their access to work, it places them in a position of dependence, where they have little say over their working conditions and are forced to accept exploitative arrangements without negotiation. The transportation system, rather than being a mere inconvenience, is an expression of broader power imbalances that define the agricultural labour market for women (Gueddana, 2021). As Employer 2 explained, he sometimes offers to pick up the women living nearby (approx. 4 to 5km) with his own car on his way to work. Women who live further away are brought by a *samsar*, who is paid 20 TND per woman per day by the employer and passes on the money to the women after deducting transport costs.. However, it appears there is no control over how much the *samsar* charges the woman for the transportation (Pos. 83). This means that the women are not only dependent on the employers' willingness to pick them up, but also on the agreement between the farmer and the *samsar* concerning their payment.
It is important to note that the vehicles used for transporting female workers are often old, overcrowded, and not safe. These vehicles, often referred to as 'death trucks', well known and mentioned by all my interview partners, travel long distances, sometimes up to 20 kilometres, on unpaved roads, which can increase the risk of fatal accidents (Ministry of Agriculture, Water Resources and Fisheries, 2022). It is estimated that between 2015 and 2021, at least 50 women lost their lives and around 700 were injured in work-related transportation accidents (Brandenburg, 2024). The following statistic presents the aggregate number of accidents that occurred from 2015 to

[9] 'karhaba' meaning car.

2022, along with the number of fatalities and injuries. Two accidents occurred in the governorate of Sousse, and one occurred in Monastir (Al-Attar, 2023).

الجرحى wounded	القتلى deaths	الحوادث accidents	السنـــــة
166	7	14	2015
111	7	12	2016
92	8	11	2017
147	5	13	2018
139	17	15	2019
51	4	6	2020
88	4	7	2021
40	1	5	2022 إلى غاية شهر ماي

Figure 17: Incidents of transporting female workers in the agricultural sector (Al-Attar, 2023).

It has been reported that in many cases, the vehicles lack proper seating, forcing women to stand during the entire journey, sometimes on surfaces deliberately wet with water or animal waste to prevent them from sitting and making room for more workers (Bajec, 2020; Bensaad, 2019). It has also been suggested that sexual harassment is a frequent issue, as men and women are crammed together in these unsafe transport vehicles (Bensaad, 2019).

Women continue to endure these transport conditions because they have no other option. It is estimated that 85.6% of female agricultural workers depend on transportation to reach their workplaces (Al-Manaei, 2016). However, it is important to acknowledge that many women are aware of the potential risks but accept these conditions to support their families. This economic necessity may, regrettably, trap them in exploitative labour arrangements and discourage them from demanding safer alternatives, thus reinforcing a system where their safety is secondary to profit and productivity (Ministry of Agriculture, Water Resources and Fisheries, 2022).

Efforts to regulate transportation have not yet been fully successful. Law No. 51, which was introduced in 2019 with the aim of improving transport conditions for agricultural workers (see p. 63 in this thesis), remains unenforced due to the absence of regulatory orders (Bensaad, 2019). Even pilot initiatives, such as introducing bus lines especially for farmworkers, have not been successful due to their incompatibility with the existing informal labour system, where intermediaries control both employment and transportation (Bajec, 2020). The absence of viable state-supported alternatives means that many women remain dependent on private transport providers who often prioritise their own profits over worker's safety. According to the report of the FTDES, of the 500

surveyed women, 80% move to the fields by truck, 10% by *carita*[10], 8% by foot, and 2% by another means (Al-Attar, 2023).

From the research I have carried out, it appears that none of the women were experiencing these transportation conditions extensively. Some had travelled on such 'death trucks' (W2, Pos. 70) in their rural hometown or had female workmates who came from far away and therefore had to use such transportation options (W11 & W14, Pos. 69). The primary reason for the absence of such 'death trucks' may be that the majority of the female interview partners lived within or in close proximity to the agricultural site, and therefore travelled by foot or were collected by the farmer himself in his own car at a pre-agreed meeting point, without having to pay a transportation fee. The self-sufficient female farmer even used to reach her agricultural site on a *carita* when her donkey was still alive (W10, Pos. 142).

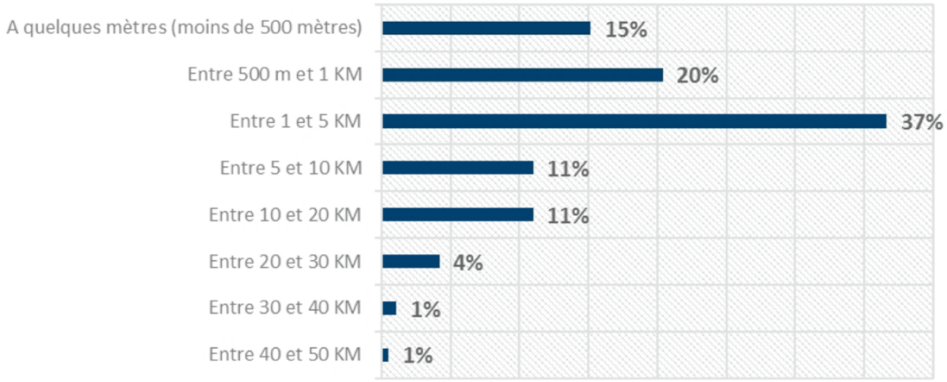


Figure 18: Distance travelled to work in Tunisia (Gueddana, 2021).

It could therefore be said that the further away the home is from the workplace, the more dangerous and exploitative the transportation conditions become. It would be interesting to investigate in further research if the graphic illustrating the distance travelled to agricultural work in Tunisia by Gueddana (2021) aligns with higher accident quotes or reported maltreatment of women working in Tunisia's fruit and vegetable agriculture. However, it should be noted that the transportation vehicle would need to be considered as well. The three women who live in *Sousse* and far away from their workplace reported that despite the long journey to the farm, they did not find the conditions unsafe. They had the opportunity to travel with the metro line, connecting the three coast cities *Sousse*, *Monastir* and *Mahdia*. While this mode of transportation was considered much safer than the use of shared taxis or trucks, it did require a significant financial investment, with the price of metro tickets accounting to approximately 12.5% of their daily income (W5/W6/W7, Pos. 184).

It is worth noting that while all of my female interview partners reported no current experience of unsafe transportation, the fact that some of them had previously endured themselves or heard of

[10] Cart carried by her late donkey

such experiences is likely to have left a psychological mark on them, leaving them to walk armed with a stick against robbers and ready to defend themselves (W5, Pos. 177).

"(deep breath) *Before I had very bad circumstances. One …. I don't know… I and my older sister … meaning … truly … we knew what's fear. It was not like now ... You remember before it was all rural* (meaning: there were not that many buildings and people around). *Before at (naming place). Me and my sister took a car. A car like that on the road and we're going the door like that* (hands shake to demonstrate), *it was stolen, they were searching/digging, and a group of robbers, and all, the door was moving like we were …. Meaning we experienced something like that. And another time I remember, I was young, a man was in front of us going with a motorcycle, and waiting for us and calling someone about us to abduct us. truly …. And we were children so what did we do. We let him believe that we were going with him. On this road we went in front of him and at the moment he went to the side of the road we escaped, running. We escaped and hid in one of the agricultural areas until he … And we still finished our day* (meaning: went to work). *We finished our day. Imagine if it was now I wouldn't do that (laughing) and we finished our day and stayed when me and my sister were children we finished our day. She was 17 like that and I was like 15 or 14*" (W2, Pos. 115).

Tu sum up, it can be stated, that there may not only be socio-economic reasons behind the demographic movement from rural areas to the coast lines, as analysed before (see chapter 2.1.5 in this thesis), but also security considerations, especially with regard to women.

6.2.1.3 Contracts

According to the FTDES report, the number of women working in the agricultural sector in Tunisia was 521,306 from 2017 to 2018. The majority of these women, 69%, were labelled as temporary 'helping'[11], 13% as permanent 'helping', 16.5% had temporary wage, and only 1.3% had permanent wage. These results clearly demonstrate the feminisation of agricultural work, whilst simultaneously indicating the marginalisation of female labour (Al-Attar, 2023).

For women working in Tunisia's agricultural sector, the lack of formal contracts is not just a bureaucratic gap, but a structural problem that exposes them to widespread exploitation and economic instability. In *Sidi Bouzid*, for example, not a single one of the 996 female agricultural workers surveyed was employed under a formal contract (Al-Manaei, 2016). This finding was confirmed by my female interviewees, even those employed by the government and working on government land. None of them has ever seen a contract.

"*No they're all not registered. There isn't a woman registered. You want to know about contracts and stuff? No, they just work like that. We say not clean, like not registered. Just like this*"
(Expert2_Ministry, Pos. 14).

[11] 'Helping' is defined as unpaid labour within a family's agricultural activities.

It is important to note that in the absence of formal written agreements, the employment relationship is not always clearly regulated. This can lead to deficiencies in job security and legal protection and can result in a certain flexibility in the payment of wages. It is commonly understood that the employment relationship is largely determined by the landowners or intermediaries involved, who may not always be able to provide consistent or fair working conditions. Officially published graphics, such as the one below, only include registered employees with contracts in place, leaving out all my sixteen interview partners and many more.

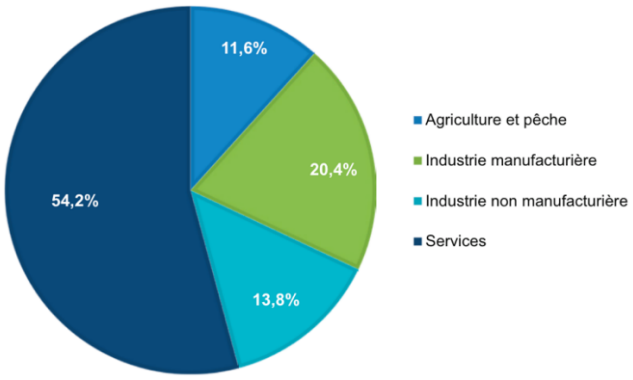


Figure 19: Employee distribution by sector of activity, 2021 (Ins, 2021).

However, the absence of formal contracts may also reflect the inherently variable nature of agricultural work itself. The majority of employment opportunities are seasonal and tied to crop cycles, with over 70% of female farmworkers engaged in short-term, irregular labour. Fruit tree harvesting and irrigated crop cultivation, in particular, dictate the ebb and flow of employment, making continuity nearly impossible. As a result, only 16.5% of women describe their work as stable, while the majority are left uncertain about their employment status from one day to the next. This instability can have an impact on family life, economic security and long-term financial planning. For those women who are the primary breadwinners in their households, the inability to predict future income can create an ongoing cycle of precarity (Al-Manaei, 2016).

This fragility in employment can also lead to further violations, such as arbitrary dismissals, with workers often losing their jobs without any compensation or recourse. The decision to retain or dismiss workers is often made on the whim of the employer or intermediary and is not based on an assessment of performance or necessity. The lack of legal protection to prevent unjustified dismissals puts women in a precarious and vulnerable position (Al-Manaei, 2016).

"*Nononono by word. We don't have contracts here never. Because one day they work and tomorrow they don't show up. Make a contract or they say I'm sick, other times … because I know the law and … I worked in tourism and everything…. The one who works with a contract one day holiday, three days sick, without a ticket* (meaning medical certificate?)" (Employer1, Pos. 58).

"*No none of the employees are my responsibility. The day he/she comes to work they get paid, the day he/she does not come to work, they don't get paid …. No contract, nothing. And I also don't work with any contracts*" (Employer2, Pos. 62 / 69).

Informal labour has become deeply ingrained in Tunisia's agricultural sector. It is not just an exception but a defining characteristic of rural women's employment (Ministry of Agriculture, Water Resources and Fisheries, 2022). This systemic informality may potentially limit women's access to fundamental labour rights and could contribute to broader social and economic inequalities. As can be seen from the table summarising all active laws in Tunisia (see p. 62–64), rural women are actually included in the formal labour protection system. This means that they are illegally excluded from benefits such as social security, healthcare, and pension contributions. This exacerbates their economic vulnerability, reflecting the intersection of gender, class, and economic marginalisation and leaving them without any trust in the protection of legal laws.

"*Oh 'binti' contracts are only with God. There is no contract no nothing. We work under the table* (meaning: black)*. As I told you from place to place. So an ordered life you only have if you're honest with God. Not with a person*" (W3, Pos. 53).

"*There is no contract. In general we never hear of it. No contract, no filling* (referring to retirement and health insurance)*, no papers, nothing like that for us. We work in the black. … We in general, I talk about us, we are people working unregistered, tired, exhausted, things happening to us which don't* (shouldn't) *happen, so people can eat meaning peppers and tomatoes, potato's, something like that. And on top of that the rising expenses. No we're all together like this. And still we say hamdoullah*" (W2, Pos. 99).

6.2.2 Work regularisation

For women working in Tunisia's agricultural sector, the absence of proper work regularisations is not just an administrative issue — it is a matter of life and death. While discussions around occupational health and safety often focus on the dangers of transportation, it is important to consider that the risks faced by female agricultural workers extend far beyond that. The absence of legal protections, safety regulations, and social security leaves them exposed to hazardous working conditions, where accidents are frequent and often fatal (FTDES, 2024; 2).

The dangers they face are not hypothetical; they are a lived reality. On June 29, 2022, for example, a woman lost her life in *Jendouba* when a mowing machine killed her while she was working in the fields. Later that year, on December 7, another incident occurred in *Kef*, where a woman died after falling into a water reservoir while pumping water. These are just the documented cases — many more likely go unreported, hidden by the informal and unregulated nature of agricultural labour (FTDES, 2024; 2).

The lack of proper health and safety regulations is compounded by broader structural inequalities and the women's work is often considered supplementary, neglecting the importance for household

incomes and national food production. The issue of work regularisation is therefore not just about formalising employment, safe transportation and safety at work, but also about challenging the entrenched power dynamics that keep women in a state of vulnerability. It is encouraging to see that many of them are aware of their rights and are demanding social and health protections, but their voices often go unheard. As one worker, Jamila, expressed: "We want our rights. With what else are we Tunisians?" However, without a clear commitment from legislators, employers, and the society as a whole, their demands continue to be ignored (FTDES, 2024; 1).

In the following sub-chapters, I aim to shed more light on the structural inequalities and their intersections with gender and existing power relations, as according to the women I interviewed 'each day is different'.

Wage

Despite being the backbone of Tunisia's agricultural sector, female workers face persistent wage exploitation and economic insecurity. The country formally guarantees a minimum wage for agricultural work, yet in practice, every surveyed female worker in *Sidi Bouzid* reported earning less than this legal threshold (Al-Manaei, 2016).

Date d'application	SMAG par jour (1)
Juillet 2008	7,749
Juillet 2009	8,019
Juillet 2010	8,380
Juillet 2011	9,000
Juillet 2012	11,608
Juillet 2013	11,608
Septembre 2014	12,304
Novembre 2015	13,000
Novembre 2016	13,000
Juin 2017	13,763
Août 2018	14,560
Mai 2019	15,504
Décembre 2020	16,512
Décembre 2021	16,512

Figure 20: Evolution of the minimum wage [(1) = agricultural guaranteed daily minimum wage in TND] (Ins, 2021).

Daily wages for rural women vary between 7 and 15 TND, depending on the region, which is far below the national average and significantly lower than the already modest earnings of men (Bajec, 2020). In *Jendouba*, for instance, women receive an average of only 8.545 TND per day (Gueddana, 2021). According to the FTDES report, 6% of women receive an amount below 10 TND, 48% received between 10 and 15 TND, 44% between 15 and 20 TND, and only 2% received more than 20 TND.

Furthermore, the study revealed that only 7% of respondents were satisfied with their daily income, while 93% were not (Al-Attar, 2023).

In my own research, I found that my female interview partners reached a daily wage of 20 to 25 TND after having worked for only 5 to 12 TND (W3, W15) in the past. The amount of the wage depends on the farmer, location and work routine. While this may be slightly higher than the required minimum wage, it cannot be considered 'better' as the *Sahil* region is located on the coastline and has higher living costs than rural regions in the interior of the country. According to Employer 1 (Pos. 116) and the majority of female workers, wages seem to be responding to rising costs, but it is felt that the salary is not always enough to cover living expenses. The increase depends on the willingness of the employer and the employee to insist on it. This can be a disadvantage for women who are more reluctant or afraid of losing their job.

"*We went to him and told him that everything got more expensive and we couldn't afford anything anymore. So either they increase* (the salary) *or we quit. So they increased this 2 TND. And then 3 TND last year …*" (W3, Pos. 74).

Additionally, some farmers offer the option of 'box'- wages.

"*… So it's not 'by the day', but only if they want to. Because they can gain more. So one box pepper is 1 TND. So they can harvest 30 boxes and get 30 TND. There are some who only want to work until 10am, so they harvest 20, 15* (boxes)*. Everyone as they please, the one who wants to work 'by the day' can do that. We* (meaning: the employer) *do not care, whatever they want to work they can*" (Employer2, Pos. 120).

For some women, the decision for box-wages offers the option to work part-time or to earn more money than if they were employed for a fixed daily wage. However, it should be noted that box-wages require a significant amount of physical effort, which, when maintained over a long period of time, may have serious physical effects. Additionally, female workers have no control over box-prices, which are dependent on market prices and can fluctuate almost daily.

The situation is further exacerbated by the nature of agricultural work, which is predominantly seasonal and unstable as discussed above. Temporary employment dominates the sector, with around 76% of the workforce being hired on a short-term basis, leaving workers without job security or financial stability. Many women, particularly in arid and semi-arid zones like the *Sahil* region, have no alternative but to accept these exploitative conditions, as agriculture remains one of the few viable income sources available to them (Gafrej, 2016). The reasons for the lack of other job options will be elaborated in more detail later on, but it is important to already state here, that none of the women I interviewed, expect the self-sufficient woman, had any other motivation to work in the agricultural sector than due to their precarious economic situation and the lack of other job options.

Additionally, while labour-intensive tasks require long working hours, overtime is frequently unpaid, directly violating legal wage protections, as held in the Employment Code 2024. The lack of bonuses

or benefits further exacerbates their precarious financial situation of women (Al-Manaei, 2016). I found that the answer to the question about additional payments was consistently 'The day you work, the day you get paid, a fixed price in cash'. There were no payments for overtime or work experiences (W9, Pos. 264), but also no wage reductions when the daily work did not require a full day's worth of work. It is my understanding that, regardless of the number of years spent working in agriculture, all women received remuneration within the same wage range.

Despite facing violations of their rights, women were able to exercise their agency by determining the frequency of their payments. While their wages were calculated on a daily basis, my female interview partners were able to decide for themselves whether they were paid daily or weekly.

"*When I need it I get it. And when I have money I spend it. I prefer it with him so I find some saving for the rent … If I want to get paid daily, I get paid daily*" (W16, Pos. 60).

Women who work under neighbourhood agreements — where employment is arranged within local communities — sometimes receive better wages and protections than those hired through intermediaries. However, these arrangements are not widespread, and the broader issue of wage exploitation remains unaddressed (Brandenburg, 2024). Ultimately, wage insecurity in agriculture is a reflection of deeper structural inequalities, where workers are systematically deprived of fair compensation due to weak labour regulations, informal employment practices, and a lack of governmental oversight.

However, it is interesting to note that some women were sympathetic to their employers' situation and did not appear to be dissatisfied with them.

"*Well the pay is not much. But the farmer also does not get money*"
(Employer2, Pos. 42).

I understood that their anger was directed at the government and the perceived lack of protection they were experiencing on a much larger level than just the meso-level in their respective workplace. The women recognised that in Tunisian agriculture they are confronted with a circle that is embedded in a much larger context, and that the farmer is a crucial but dependent part of it, as much as they themselves are. This could provide a rationale for the findings of the FTDES report, which indicated that 67% of the 500 surveyed women attributed responsibility for risks such as truck accidents solely to the government. Consequently, 30% characterised their relationship with the employer as positive, 8% as tense, and the remaining 62% reported no relationship (Al-Attar, 2023).

Gender gap

The gender wage gap in Tunisia's agricultural sector is one of the most striking indicators of economic injustice. Women, who make up 70% of the agricultural workforce, earn approximately 50% less than men for the same work (Bajec, 2020). On average, male agricultural workers earn between 14 and 30 TND per day, while women receive between 7 and 15 TND (Bajec, 2020; Bensaad, 2019). In some regions, such as *Ariana*, the wage gap reaches an alarming 40% (Gueddana, 2021). This discrimination

persists despite Tunisia's labour code and the human rights explicitly mandating equal pay (Bensaad, 2019).

In the *Sahil* region, my research aligned with that of other studies in Tunisia, which suggested a wage difference of around 10 TND, with a range of 5 to 15 TND. Many female workers expressed concerns about the gender pay gap, citing their work routines and conditions as just as exhausting as those of men. Some even reported that their male counterparts were more likely to take additional breaks and work fewer hours.

"*A man is not better than us. We also climb up the ladder, we also work.* All women: *not the same, what should we do?*" (W5/W6/W7, Pos. 171-172).

"*Men get paid better. Men always get paid more. They do the same work and sometimes a woman's work is even better but still men get paid more*" (Expert2_Ministry, Pos. 122).

The FTDES report clearly showed that only 15% were not bothered by the wage gap, while a strong majority of 74% were clearly bothered by it. Out of all the 500 women, 15% believed that the wage gap is normal and that men make a great effort (Al-Attar, 2023). This internalisation of gender roles is evident in their decision to either resign and accept the offered wage, even if it is less than that of their male counterparts. This highlights a clear acceptance of the status quo.

"*But we don't count. What he gives me I stay quiet. And thank him and God bless his parents* (common saying)" (W4, Pos. 29).

Or they gave their circumstances a meaningful reason by referring to their employer's arguments.

"*So the work men do is harder for the body, and that's why they need a higher payment*" (Employer1, Pos. 113).

"*Truly I think it-s right, because there are things I can't do. Ploughing the ground with the donkey I can't do that to be honest. So a men is needed to do this work. And this period to fill up the potatoes and to cover the greenhouses* (meaning: with plastic)*, this also needs a man. And a man also gets tired/exhausted. In summer during the heat and he covers the greenhouses… one who's inside it, nothing happens to him but a man gets exhausted doing it. That's why his salary is better than the one of a woman. We are planting and harvesting and they no, something heavy they lift it*" (W16, Pos. 81).

The gender pay gap is further entrenched by occupational segregation, with employers deliberately avoiding the hiring of educated women or skilled female technicians to keep wages low, preferring instead younger, unskilled workers who lack the bargaining power to demand fair pay (Bensaad, 2019). Meanwhile, male workers are more likely to be employed in managerial or supervisory positions, creating an economic hierarchy that reinforces gendered power imbalances (Abdelali-Martini & Dey de Pryck, 2015).

Beyond the immediate financial disparity, the wage gap has long-term consequences for economic security and poverty cycles. Women's comparatively lower earnings limit their ability to save, invest in education, or access better job opportunities, thus reinforcing a cycle of feminised poverty that is passed down through generations (Ministry of Agriculture, Water Resources and Fisheries, 2022). The economic dependence created by wage discrimination further reduces women's bargaining power within households and communities, perpetuating their social and financial marginalisation.
It is important to acknowledge that addressing wage injustices requires more than just enforcing labour laws. It may be beneficial to consider a fundamental restructuring of agricultural employment policies. Implementing fair wage regulations, strengthening labour protection, and ensuring equal pay for equal work are essential steps toward breaking the cycle of economic and gender-based exploitation.
However, I found that the female workers themselves have understood that the situation cannot be solved simply by increasing wages or introducing new policies, because there is a whole price system behind it and they are only a part of this circle.

"*This is something that … sometimes women work more than men in agriculture. And harvests you more products than a man. This is something were we need …. equality. Why the men get more than women. – Okey so a man would not work for less? – No but these are just the prices. So you find a construction worker getting paid this amount daily. Meaning it's depending/increasing with cutting the olive tree … This prices are controlled by the whole country*"
(W10_self-sufficient, Pos. 155-156).

It can be argued that this understanding of the system fosters a positive relationship between female workers and their employers, enabling both parties to understand each other's circumstances and recognise the limitations of making small-scale changes. This finding resulted from the observation that most women did not express any negative feelings towards male employers or work colleagues Instead, their dissatisfaction was directed towards the government and the perceived inadequacy of the enforcement of their legal rights.

Working hours

Despite the legal daily working time being nine hours, many workers report that they exceed this limit, often working between eight and twelve hours a day (Al-Attar, 2023). This is further compounded by inadequate break times and the absence of overtime pay (Bensaad, 2019). The average female agricultural worker labours for 7seven to eight hours a day, compared to men, who work approximately five hours and ten minutes on average (Gueddana, 2021). In the *Sahil r*egion working hours ranged from seven and nine hours, which is in accordance with the legal maximum. This observation was made in the context of an agreement for daily wages, with no consideration given to the manner in which the work was conducted.

It is important to note that work schedules can vary significantly based on seasonal demands. In the colder months women may begin their day as early as 5:00 a.m., while during peak agricultural seasons, this may be as early as 3:00 a.m. (Jehouani & Meryem, 2023). My research has revealed a distinction in the women's work schedules based on the season, with variations observed between summer, winter, and *Ramadan*[12]. During summer, due to the heat, they start their work mainly early in the morning, at around 5:00 a.m., and finish around noon. However, Woman1 also explained that for most women work stops during the hot summer months (July until September), as the harvest for the previous season is over and the new season starts only in October (Pos. 12). Woman10 reports something different. Her self-sufficiency means that she must return to work in the early evening to prepare the fields for the coming season (Pos. 183), whereas this work is usually done by a few men employed all year round. During winter, due to the humidity in the morning preventing the harvest of mainly olives, their work starts around 7:00 a.m., and is over around 4:00 p.m. During *Ramadan* work starts as early as 6 a.m., irrespective of the season, and finishes approximately around noon. None of the women reported that their pay was reduced by the six-hour working day, but many explained that they often feel exhausted after a few days into the month due to the *suhoor*[13] and prayer before sunrise. Woman 10 explained further:

"*During Ramadan I don't employ them. I can't, it's not sufficient for me. He does not come early. Not all the people get up early. Our rhythm here we don't stay up late. If you would stay up late you just can't… also our sleep is… Meaning many things are just set you're not free to just… live… meaning all your life you just live like this to not lose … because if you would stay up late, go out or move around* (claps in hand) *you would not survive*" (W10_self-sufficient, Pos. 185).

While 79% of women in the agricultural sector work eight hours or less per day, which is in line with the legal maximum, the real issue lies in the lack of compensation for extra work as already touched upon. More than half of female farmworkers (54%) report not receiving overtime pay, despite frequently working beyond their contracted hours (Al-Manaei, 2016).

"*Sometimes he profits on purpose. He tells you 'whalla the truck is coming and the order has to be prepared by then'. So you stay after the time and work and go home and get paid for example 15 TND. It's the same it does not increase or decrease*" (W1, Pos. 148).

Their workweeks typically consist of 4.66 days, and employment is often irregular, averaging around seven months per year. This instability leaves women in a constant state of financial uncertainty, as their employment is dictated by the needs of landowners rather than any formal structure (Gueddana, 2021). In my own research, it appeared that all women worked at least 5 days a week, and often 6 or even 7 days, depending on the workload. With the exception of Woman 10, who was

[12] The Islamic fasting month, the national religion of Tunisia. This period of fasting extends from sunrise to sunset and is based on the lunar year. It therefore advances by 10-11 days each year.
[13] Pre-dawn meal

self-sufficient on her father's land, all women only worked from October. They started planting and continued harvesting until June. None of them had any kind of stability, as their work is also highly dependent on the workload within these 10 months. With increasing uncertainties in the agricultural sector due to climate change, it is essential to ensure that the voices and lived experiences of women are included in the development of future plans that address the necessary and unavoidable changes. Beyond the gruelling work schedules, the informal and competitive nature of agricultural employment places additional pressure on women. In some contexts, workers must gather in designated areas, known as *mouqef*, where they compete for daily jobs by rushing to employers' vehicles, hoping to secure a position. While this practice is more common in Morocco, similar recruitment dynamics exist in Tunisia, particularly in regions where formal employment structures are absent (Jehouani & Meryem, 2023).

The long and often exploitative working hours of female agricultural workers are not just a labour rights issue, but a reflection of deeper structural inequalities. Women perform the hardest and longest tasks, yet they remain often underpaid and unprotected. The agricultural sector's reliance on their labour, without ensuring fair compensation, job security, or adequate rest, maintains their economic vulnerability and reinforces gendered power imbalances. It also highlights the dependence of female agricultural workers on their mostly male employer.

Work breaks

For women working in Tunisia's agricultural sector, break times are a combination of legal entitlements and customary practices, often dictated by the informal nature of their employment. While all surveyed female workers reported receiving a lunch break, the quality and duration of these breaks vary widely depending on the will of the employer and the work environment (Al-Manaei, 2016). Even during long shifts, rest periods are minimal, with many workers getting less than an hour for lunch (Bensaad, 2019).

In most cases, women are also granted a short morning break in addition to their midday rest, which has been confirmed by both the working women and the two employers. For their lunch break, all women gave a timespan of 30 minutes to one hour. However, it should be noted that these breaks do not necessarily reflect decent working conditions, as they are often short and taken in physically demanding environments, next to cans of chemicals, as shown in the picture below, with little access to proper rest areas or shade. Additionally, some women explained that their lunch break is too short to go home and cook for their children (W11/W12/W13/W14, Pos. 129) and that, if they are close enough to home, the situation there may prevent them from getting back to work in time.

> "*If you get there, sometimes you won't have the time to eat lunch. So I for example have my grandfather at home, an old men, I get home and ….. stressed to make him something to eat, sometimes I get back* (wo work), *sometimes I don't get back because I have to care for him*" (W2, Pos. 153).

Figure 21: Lunch break, Cherahil (TU) (own picture, 2024).

Furthermore, despite the statement made by Employer 2, who described women's work as not time-sensitive, easy to learn and without the need to oversee them (Pos. 127), while conducting the three interviews during lunch break, I could not help but get the impression that they were in a hurry to go back to work and were kind of uncomfortable about being seen 'only' talking. As Woman 1 explained:

"*5 minutes maximum. And during this 5 minutes you're not really relaxed. Even if you sit down he watches you and thinks 'she's just sitting'. And all the other workers copy you and everyone is going to sit down. So this does not suit him* (referring to the boss), *5min 5min 5min and then it becomes 1 hour. So you stand up forcedly*" (Transcription_W1, Pos. 138).

It is important to mention, however, that, as has been seen with other violations of women's rights, women have found ways to navigate the circumstances. It has been observed by and explained to me that lunch breaks were used to laugh, eat and talk together.

"*The fun when we eat lunch and all gather together. We talk and the day goes by quickly*" (Transcription_W8, Pos. 129).

When it comes to weekly rest, 90% of female agricultural workers stated that they receive one day off per week, typically on Sundays. However, for the remaining 10%, this entitlement is denied, primarily due to the irregular nature of agricultural work. Since employment is often seasonal and unstable, employers frequently argue that workers do not need weekly rest if they are not continuously employed. This reflects a broader issue in the sector, where the absence of formal contracts allows employers to arbitrarily define labour conditions, often at the expense of the

workers' well-being (Al-Manaei, 2016). Additionally, I found that women sometimes do not want to take a weekly rest as for some there is nothing else to do and they can use the additional pay.
Religious holidays, particularly *Eid*[14], are generally observed as mandatory breaks. However, this is more a matter of tradition than legal enforcement, with employers granting time off in line with customary expectations rather than labour laws (Al-Manaei, 2016). While these breaks provide temporary relief, they do little to improve the overall working conditions of female farmworkers. Also they do not get paid on such religious holidays, even though the labour code (Al-Manaei, 2016) demands it. Then as mentioned above, 'the day you work, you get paid, otherwise not'.
The way work breaks are structured highlights the intersection of informal labour practices, and economic precarity. Women's ability to rest during the workday or take time off is not based on standardized regulations but rather on the discretion of the employer, the unpredictability of agricultural work, and deeply rooted social norms.
Interestingly two women did not state the same when asked about the comparison between the past and present situation which further highlights their dependency on their male employer and that maybe some of the regulations have had an effect on some of them to ensure better working conditions.

"*Now the employer cares for you when you have your lunch break and when you have to rest. Before it was 'work that's all'. He does not give you your right for time* (meaning: breaks, work hours)" (W14_Kroussia, Pos. 43).

"*Before we rest a bit. Before they gave us time to prepare our breakfast and get out (of the greenhouses) to eat breakfast. And at lunch the same we go out to eat and then go back in. That's it*" (W15, Pos. 57).

6.2.3 Physical conditions

In the extant literature concerning the physical conditions of women employed in agriculture, the physical consequences of such work are discussed in detail. In the *Sahil* region, the following problems were cited by at least one woman as a direct outcome of their arduous work:
These included back pain and hip pain due to heavy lifting and repetitive bending; hernia, rheumatism, swollen hands, fingers, and feet due to inadequate hydration; contusions, high blood pressure, and muscle hardening due to the cold and humidity in winter. Others reported health concerns including closed throat and nose, dizziness and nausea due to the heat or use of chemicals, sleep disturbances due to fatigue, and hunger resulting from extended working hours without adequate rest and meals. In general, the women described their situation succinctly summarizing their experiences in a single word: exhaustion.

[14] *Eid al Fitr* = Celebration of the end of Ramadan

"*But as much as I'll tell you, the agriculture we endure the farming, as much as I'll tell you, truly … meaning …. I myself can't imagen it. Exhaustion exhaustion*" (W2, Pos. 55).

"*And there is physical exhaustion. And they don't have the right to be sick. If they call in sick they don't get paid. She can't bring in a medical certificate that she's sick and for her to get paid. So they have to work while sick because they need the little money they get*" (Expert2_Ministry, Pos. 98).

During the course of the interviews, it came to my attention that the women were dressed in dirty and smelly clothes, their hands were covered in small scars due to scratches and nettle burns, and some showed signs of early deafness and blindness. The most concerning observation was their suboptimal dental hygiene, with some having already experienced tooth loss, which could potentially lead to serious infections.

When asked about a possible change in the physical conditions of their work, it became evident that the actual physical demands had not changed, but that their work had become more difficult due to ageing, ongoing exhaustion over a long period of time and a sense of resignation about the possibility of change.

"*I out of the others was working double because I was young and was working working. I had not in my mind that my body … I shouldn't exhaust it a lot. I didn't think that*" (W2, Pos. 69).

"*So their circumstances are very bad. Women, let's say something very weak, meaning it's so breakable*" (Expert2_Ministry, Pos. 58).

Despite experiencing exhaustion, the women I met demonstrated remarkable determination to persevere, driven by a sense of responsibility to their children and a desire to provide them with a better life. While their bodies may have been drained and some showed signs of mental resilience regarding the prospect of change within their lifetime, I never perceived them as weak or fragile. On the contrary, their endurance and resilience were truly remarkable, despite the inequalities and hardships described below.

Sanitary facilities

The lack of sanitary facilities on farms is one of the most overlooked yet deeply impactful issues affecting female agricultural workers in Tunisia. With no designated rest areas or toilets provided by employers, women are forced to relieve themselves in open fields, often behind trees, exposing them to embarrassment and discomfort (Bensaad, 2019). This lack of privacy clearly robs them of their dignity.

"*Sometimes you're pressed* (meaning having to go to the toilet urgently) *since the morning until the evening so that you can release yourself. You explode. If there's a man he looks, a man from there looks. You can't, there aren't any toilets. And sometimes the men and women are mixed. Look there where the women come out. You don't find your peace, also to bend down to harvest or something*

like sitting for the toilet. You don't find, never (hands clarify by clapping). *Or there is no water to clean yourself (silently) there isn't, there isn't, never*" (W1, Pos. 182).

"*W9: I hold myself form morning to evening. W8: There are some who hold it. But some can't do that and go to any place.* (mumbling) *greenhouse…. That's it. One goes away from the agricultural site and goes away. Not within site*" (W8/W9, Pos. 317-318).

Furthermore, the absence of sanitary infrastructure has severe consequences for the physical well-being of women, particularly for their reproductive health. Many female agricultural workers report suffering from urinary tract or fungal infections and other gynaecological issues due to prolonged delays in relieving themselves. Holding in urine for extended periods increases the risk of infections, which, if left untreated, can lead to chronic health problems. Additionally, many women experience stress incontinence, meaning they struggle to control their bladder even when sneezing or sitting down — an issue that worsens over time due to repeated strain and the lack of medical attention and intervention (Adıbelli, Kırca, & Özkan, 2022). However, given the taboo nature of this subject for women, many of the female participants in this study provided only short answers, occasionally accompanied by what appeared to be sarcastic laughter. This led to the decision to refrain from pursuing more in-depth inquiries, as it seemed unproductive to burden the participants with additional questions. Furthermore, the subject of menstruation was found to be a sensitive topic for women, with one participant explicitly stating,

"*We Tunisians, we don't tell this to others you have to understand. We don't talk about this*" (W16, Pos. 110),

thereby indicating a reluctance to delve deeper into the topic. Some participants were unable to work due to the pain, but were not paid for their absence in the fields. Others took their products with them and hid them in the fields.

"*When we get home we're done.* (claps in her hands and laughs) *if you make it* (others laughing)" (W11/W12/W13/W14_Kroussia, Pos. 205-206).

"*When it's bad I excuse myself and go home … I can't do it in front of the men. Also if they see me they ask 'where does she go'?*" (W15, Pos. 117-118).

For pregnant women in agriculture, the situation is even more problematic. Many continue working throughout pregnancy, with some reporting complications such as spontaneous abortions, one within my own research who lost two babies (W10, Pos. 243), and other serious health issues affecting both themselves and their children (Adıbelli, Kırca, & Özkan, 2022).

The lack of adequate sanitary facilities is not just a logistical inconvenience; rather, it is a direct consequence of broader systemic inequalities.

The failure of employers to provide fundamental sanitary facilities reflects the inability to recognise the complexity of the situation of female agricultural workers when compared to their male

counterparts. This perpetuates a structural power imbalance that increases the vulnerability for women, compelling them to endure conditions that compromise their health and dignity merely to earn a livelihood.

"*The women…. We don't have a toilet for women. But you see they just look together for a hidden place and release themselves there. Like we do.* – (Me) But there is a difference between a man and a woman. – *Yes there is a difference. But they just look for a hidden place. Mostly the women are amongst themselves without men around them*" (Employer2, Pos. 128-130).

"*No he's like this, looking, or asking 'we're are you going?'. He does not think about that we have to go to the toilet you understand. For example the employer comes and asks 'we're are the women' and they say 'oh they went out to stroll. Oh they're resting'. You understand. Also if the employer comes you can't say 'I'm pressed I have to go'. I'm ashamed, I can't ask him. So I'm forced to tell him 'I was just resting' I can't tell him …hmmmmm 'I was…..' mmmm you understand? Like that*" (W1, Pos. 186).

There are toilets for both male and female on the government agricultural site, as Woman15 explained (Pos, 108-109). Even Employer1 had toilets (Pos, 100), yet a later interview with some female employees revealed that these toilets were in fact closed. Addressing this issue requires more than the construction of toilets. It demands a fundamental shift in how agricultural labour is valued. Ensuring access to proper sanitary facilities is a basic necessity, yet its continued absence highlights the entrenched neglect faced by female workers. The problem of insufficient pipes and good infrastructure is not only the fault of the employer, especially the small-scale ones, but also the result of a lack of proper financing and modern pipe systems by the government.

Gender segregation and work routines

The literature shows that the division of labour in agriculture follows strict gender norms. While men primarily handle mechanised tasks such as ploughing (59.5%) and carrying heavy loads (65.6%), women overwhelmingly perform manual, repetitive, and exhausting activities such as harvesting (78%), weeding (69.5%), and sowing (64.5%) (Gueddana, 2021). However, this division is shifting and thereby increasing the workload and physical burden on women. Indeed, more than one in three (36.2%) now undertake carrying duties, and nearly 10% perform ploughing, tasks previously dominated by men. Yet, rather than gaining access to more lucrative or decision-making roles, women remain relegated to the hardest work, thereby reinforcing economic disparities and social marginalisation (Najjar & Baruah, 2024).

This division of labour according to gender was similarly found in my own findings. Men and women worked together on the same fields, but men had more physically demanding or dangerous tasks, such as lifting crates filled with produce or building greenhouses with metal and plastic, or routine mechanised work, such as ploughing the soil with donkeys or tractors.

"*They can't lift the boxes* (filled with vegetables), *tomato, potato, something they can't do. Women are for harvesting. And men are for lifting, putting, sort* (contains lifting), *something very heavy is mainly for the men. Work women can't do the men do*" (Employer1, Pos. 33).

Moreover, cultural norms further constrain women's opportunities. In many rural communities, social expectations discourage women from seeking employment beyond the family farm or working in mixed-gender environments (Najjar & Baruah, 2024). These findings were not found within the *Sahil* region as the segregation was mainly due to the 'feminine' and 'masculine' ascribed activities, and less due to the (social) border between the sexes. Despite occasional interactions between men and women during breaks, they often reported that they felt more comfortable with their own gender due to their cultural upbringing. (FAO, 2024).

The sheer physical strain of agricultural work leaves lasting marks, such as the ones previously mentioned, on women's bodies. Prolonged exposure to harsh weather conditions, repetitive body movements, and poor posture contribute to musculoskeletal disorders such as chronic back, shoulder, and knee pain (Adıbelli, Kırca & Özkan, 2022). Many female farmworkers suffer from swollen and bloodied fingers due to continuous manual labour, and their feet ache from wearing protective boots — even in the scorching summer heat — out of fear of snakes, scorpions, and other hidden hazards in the fields. The repetitive nature of bending, squatting, and lifting heavy products exacerbates injuries, leading to long-term health damage such as spinal disc herniation and joint deterioration (FTDES, 2024; 2).

The following work routines were explained by my interview partners:

The cultivation of the plants is followed by harvesting the produce from the ground and from the tree, the picking of the leaves from the tomatoes, the binding of the plant to strings, the manual weeding of the crop – a cheaper method due to the reduction in the use of pesticides, as explained by Employer 2 (Pos. 51) – the filling of boxes and their subsequent lifting onto the truck, the fertilising of the ground with chemicals, and the loosening of the ground with a pick. It is worth noting that these tasks are characterised by movement, bending, crawling on the ground, and repetitive practice over time, techniques that are learned through experience and embodied over time. Despite the perception of women's work as 'the light work' (Employer 1, Pos. 33), the physical consequences are profoundly severe.

"*Ah with my body?* (D: for example) *It hurts. You get up forced. Hmmm in the morning you'll be forced to get up because my back hurts a lot due to picking up, you know. The whole day one is bent over. The back hurts a lot. The lifting of the boxes is very heavy. My hands/arms hurt. Lots of things. You understand the body gets tired a lot! Like that*" (W1, Pos. 74).

Figure 22: Weeding tomato plant, Monastir (TU) (own picture, 2024)[15].

Figure 23: Hanging tomato plant, Monastir (TU) (own picture, 2024).

Figure 24: Olive harvest, Monastir (TU) (own picture, 2024)[16].

The lack of accessible healthcare in rural areas means that many women working in the agricultural sector endure chronic pain and illness without proper medical care, (Bajec, 2020). Despite the presence of one of the country's most modernised hospitals in the city of *Monastir*, most of the

[15] Woman verbally agreed to be on the picture.

[16] Women verbally agreed to be on the picture.

female workers in the study could not take advantage of this opportunity. The reasons for this were financial constraints and a lack of support networks. Furthermore, even in the event that medical appointments were made, these were often scheduled many weeks, if not months, in the future, thus offering no immediate relief from their current diseases or health problems.

Changes in agricultural production towards market-oriented agriculture have altered family labour relations and affected the status of women on farms. Traditionally, women's work was confined to subsistence farming, but economic diversification has increased their participation in market-oriented agricultural activities (Gana, 2008). While this shift has allowed them to contribute more to household income, it has not necessarily improved their financial security or working conditions. On small- and medium-size farms that cannot afford to hire workers, farmers' wives and daughters often bear the brunt of the increased workload, leading to frustration and aspirations for alternative livelihoods outside agriculture. Although some women have gained greater autonomy by managing livestock and overseeing financial transactions, these cases remain the exception rather than the norm (Gana, 2008). The self-sufficient Woman10 explained that, unlike Employer2, she does not go to the market herself to sell and relies on a friend to negotiate the prices of the crates. Thus, although she is her own boss on the farm, she is dependent on a man to successfully sell her products (Pos. 293).

The persistence of gender segregation in agriculture, although in my findings it was more a segregation of their work tasks than a physical separation of men and women, highlights the urgent need for structural change at the national level. While women's increased involvement in commercial agriculture has provided some financial agency, systemic barriers continue to limit their full economic participation. Efforts to promote gender equality in agriculture must go beyond simply increasing women's workloads and ensure that women gain ownership of their work and decision-making power in agricultural enterprises (Gana, 2008).

Protective equipment

For women working in Tunisia's agricultural sector, access to protective equipment is almost non-existent. The majority report having no safety equipment provided to them, forcing many to purchase gloves and aprons out of their own pocket as a minimal form of protection (Gueddana, 2021).

The cost of gloves is around 2.5 TND for a pair (W10_self-sufficient, Pos. 195; W1_Pos. 129), and sometimes employers provide gloves as the only form of protection. There is a lack of institutional support for female workers in this regard. It has been observed that the spraying of chemicals is often entrusted to the male workers who rarely wear protection equipment, which might have contributed to the perception that masks are not a necessity for female workers. Many women reported that they either purchase a *mdhalla*[17] or use their *Hijab*[18] as a form of protection against the sun. However,

[17] Straw heat
[18] Headscarf for women in Islam

despite the high cost, they occasionally buy sun cream but none of the women use sunglasses, which could potentially have a negative effect on their eyesight in the long term.

"*So during summer we do this mdhalla. And the eyes what can you do, also the glasses you just… so I just try to not work in the heat. But masks and such when I use the chemicals I put on the gloves and suit. But as I told you during the heat the mdhalla and you just try to escape the heat so you don't go out at 11am, 12am*" (W10_self-sufficient, Pos. 193).

However, even these self-bought items are often inadequate against the harsh conditions they face daily (W15_Pos. 88).

"*They have no protection from the sun or rain or cold. They have no clothes to protect them from the chemicals or while cutting the trees. Their conditions are truly bad*" (Expert2_Ministry, Pos. 58).

The absence of first aid kits at workplaces further exacerbates the situation, making even minor injuries potentially serious due to the lack of immediate treatment options (Al-Manaei, 2016). When health issues arise, female workers must pay for their own medical treatment, as neither their employers nor the state provide adequate healthcare coverage.

The COVID-19 pandemic only deepened these vulnerabilities. While health protocols were in place in many sectors, female agricultural workers were largely left without protective measures. Instead of proper masks or sterilization supplies, many were given only scarves as a substitute for protective equipment, illustrating the systemic neglect they face. Despite the heightened risks of illness, the pandemic did not significantly change their working conditions or triggered significant discussions about improving their health and safety at work. This silence reflects the broader marginalisation of female agricultural workers, whose health and well-being continue to be ignored by employers, policymakers, and even public discourse (Bensaad, 2019). This may be the reason why the interviewees did not describe the pandemic as a particularly difficult time, even though it was not so long ago.

However, it is important to acknowledge the efforts of the Ministry of Agriculture, Water Resources and Fisheries in the *Sahil* region, as well as training centres such as the one in *Jemmal*, which will be discussed in more detail later, in providing appropriate protection equipment and informing working women about the health risks. Unfortunately, they are faced with situations where women are unsure about the provided tools and recommendations. It is worrying that the long-term effects of these harmful practices appear to be given little consideration.

"*And protection they don't have like I told you it's not offered by their employer. And also if protection is offered they don't wear it. 'It bothers me, let's me sweat more and breath less.' Or something like that. They don't think about the consequences, they and their employer. She just wants to finish her day and go home*" (Expert2_Ministry, Pos. 108).

6.2.4 Health risks due to climate change and chemicals

Climate change is worsening the already harsh working conditions for women in Tunisia's agricultural sector (for the context of climate change see chapter 2.1 of this thesis). Extreme weather conditions, ranging from severe heat to freezing cold, pose significant health risks, yet female agricultural workers continue to labour outdoors with little to no protection from these environmental hazards (Bajec, 2020). They are assigned physically demanding roles which require prolonged exposure to the elements. The combination of gendered labour divisions and climate-related stressors places them in a uniquely vulnerable position, where their bodies endure the long-term consequences of environmental degradation (Jehouani & Meryem, 2023).

The high temperatures, which have become increasingly extreme due to climate change, place an immense physical burden for the female farmworkers. Heat waves, lasting for much of the agricultural season, result in excessive sweating, severe fatigue, dizziness, debilitating cramps, and even the unfortunate loss of unborn children. Many women report suffering from headaches and dehydration, conditions that are exacerbated by the absence of shade, adequate hydration, and breaks during their shifts. It has become almost normal to be 'roasted' (W3, Pos. 112) within the greenhouses after 9 a.m. and to take small breaks to get some fresh air.

"Truly if it gets hot inside the greenhouses, we come outside to breath a bit. Yes also one cannot say….. nono. If one gets tired and needs to breath she can get out a bit. And after resting get back to work" (W16, Pos. 90).

Despite the evident dangers resulting from climate change, it is expected that the same high levels of productivity will be maintained, often with the entire day being spent working under the intense sun without the benefit of protective clothing or access to cooling facilities. The absence of regulations to safeguard against heat-related illnesses in the informal nature of their employment leaves the women to endure these extreme conditions without support (Jehouani & Meryem, 2023). Within the scope of my research, the work hours have been adapted to the weather conditions, yet even during the early morning hours, the working environment remains uncomfortably hot. This finding suggests that seasonal work may offer certain advantages for the health of informal employed women, as there is no work during the hottest months from July until the end of September, when the harvest is over and the ground is dry.

"*Before we all planted through the summer. But now with the heat there's nothing to gain anymore. So you just clean the workplace and prepare and do nothing. And then you begin form the beginning, autumn things such as potatoes and you get back into the greenhouses. But during summer we all were planting but the weather changed it got so hot. And this just does not work you only lose water, water, water. And water is expensive and you have nothing to pay with. So we only clean and prepare the greenhouses during summer. That's during the three months in summer before the three autumn months*" (W10_self-sufficient, Pos. 144).

According to farmers, both male and female, the even more significant problem is the scarcity of water during the summer months, which compels them to discontinue their work (Employer2, Pos. 44). Conversely, during the spring and autumn months, when temperatures are also increasing farmers employ strategies to mitigate the problem, such as utilising large quantities of water (W10_self-sufficient, Pos. 106-113) at significant financial costs (Employer1, Pos. 43).

During the cold months, agricultural work does not become any less gruelling. Soils harden at low temperatures, which can render tasks such as harvesting and digging significantly more strenuous (Jehouani & Meryem, 2023). Women are particularly vulnerable to the effects of cold weather, with frostbite and vasomotor disorders being common among the population in northern Tunisia. Prolonged exposure to low temperatures can result in pain and numbness in the fingers (Jehouani & Meryem, 2023). This phenomenon was not observed in the *Sahil* region, where winter temperatures do not reach levels sufficient to harden the soil. However, frequent precipitation, often in the form of short, intense weather events, results in the ground becoming a sticky mud, leaving women covered in dirt and vulnerable to colds if they are required to work outside the greenhouse. The absence of proper work equipment, such as gloves, insulated boots, or warm clothing, intensifies their discomfort. The wet and icy ground forces them to exert more energy, leading to increased exhaustion and a heightened risk of musculoskeletal disorders (Jehouani & Meryem, 2023).

Beyond immediate physical discomfort, climate change is also accelerating the development of long-term health issues. Daily exposure to harsh environmental conditions leads to premature skin ageing, with many women developing early wrinkles, brown spots, and dry, damaged skin (Jehouani & Meryem, 2023). All of the women I interviewed had scars and very dry and damaged skin. Furthermore, prolonged work in dust-filled environments and the presence of pesticide in agricultural fields increases the risk of developing asthma, allergies, and respiratory infections. Without healthcare benefits or access to medical assistance, many suffer in silence, as they cannot afford treatment for chronic conditions caused by their working environment (Jehouani & Meryem, 2023).

Pesticide exposure is one of the most severe and overlooked health risks faced by women working in Tunisia's agricultural sector. With the increasing mechanisation of commercial farming, the widespread use of chemical fertilisers and pesticides has become a standard practice, yet female farmworkers remain largely unprotected from its dangers. They come into direct contact with toxic substances on a daily basis, often without any knowledge of the risks involved (Baruah & Najjar, 2022; Al-Attar, 2023).

Shockingly, 89% of women working in agriculture mix pesticides with their bare hands, like Woman 15 (Pos. 93 & 96) and Woman 9 (Pos. 273), while 74% have never received any training on their toxicity (FTDES, 2024; 2). This lack of awareness is not accidental but a reflection of deeper structural inequalities — women are rarely informed about the dangers they face because their health and safety are not prioritised by employers or policymakers, and in rural areas there is often a lack of educational facilities. As one worker, Noura al Gharbi, stated: "There are women who have already

prepared their burial shrouds because they know the dangers of their daily lives. If they don't die in an accident, they will die from a poisonous bite or by poison itself" (FTDES, 2024; 1).

I would respectfully submit that the citation above appears to contradict the assertion that women are unaware of the potential dangers posed by heavily used chemicals. My interviews with women working in Tunisia's fruit and vegetable agriculture revealed a degree of awareness regarding the health risks associated with inadequate protection when using pesticides and fertilisers. It was explained to me that, in consideration of these health risks and the high market prices, women frequently do not apply the chemicals themselves. However, it has been reported that some women return to work in the greenhouses shortly after spraying, often without gloves or masks. It has also been suggested that the greenhouses are sometimes used as a hiding spot to relieve themselves.

"Really binti sometimes I come out of the greenhouses after they used the chemicals and begin vomiting from the smell of the chemicals. I swear they make one sick but it doesn't matter I only want to save the 10 TND to spend for my children" (W3, Pos. 62).

"The men do that with the spraying device and they spray it. You understand. But you're inside… meaning in the heart of the greenhouse and they 'psschschschschtttt' you understand. And also he does not care so you could protect yourself" (W1, Pos. 165).

It was explained to me by the two employers that the women were not permitted to use the pesticides because the men could withstand more 'danger', and that the intention was to apply them correctly themselves. However, it would be interesting to know whether the protection of the women working at the agricultural site was the main reason for this decision, or whether the high market prices motivated them to avoid wasting any of the expensive pesticides.

The consequences of prolonged pesticide exposure are devastating. In addition to asthma, chronic coughing, and bronchitis, skin diseases, allergic reactions, and neurological disorders have been linked to pesticide absorption through the skin. Studies have shown that these chemicals suppress the immune system, increasing sensitivity to infections and long-term health complications (Jehouani & Meryem, 2023). In my own research, many women explained their health issues using the word 'exhausting', without providing further details. When I asked some follow-up questions, some described symptoms such as dizziness, headaches, vomiting, allergic skin reactions and a feeling of suffocation when chemicals were used at their workplace. Some explained that treating themselves with a glass of milk at home after work would help and let them go back to work the following day.

The risks to women's fertility from exposure to pesticides are equally alarming. Women working in close contact with these chemicals report higher rates of miscarriages, stillbirths, and infertility (Adıbelli, Kırca, & Özkan, 2022). Exposure during pregnancy has been linked to birth defects, developmental delays, and an increased risk of childhood disabilities and respiratory illnesses. Some studies have even suggested a correlation between pesticide exposure and neurodevelopmental disorders such as autism (Adıbelli, Kırca, & Özkan, 2022).

It is important to note the lack of differentiation between fertilisers and pesticides — commonly referred to as *dawah* (medicine) in agricultural communities — which may be contributing to the problem, as many workers remain unaware of the specific risks associated with each chemical. The Expert2 from the ministry has additionally pointed out that although the government has a specific list of approved chemicals and conducts ongoing demonstration training on the proper handling of the chemicals or how to switch to organic farming, many farmers still buy their products on the black market because they work better in the short term and are less controlled. Without proper in-site control, it is almost impossible to keep track of which chemicals are used on consumed products and sicker into the ground, contaminating the groundwater (Pos. 116).

"There is no organic. It's not working expect if you're an organic farmer. But conventionally, we only have 1-2 organic farmers, they don't use organic chemicals as they're used to the chemicals. So if she uses organic it won't work. And also the organic harvest is less and expensive. But they want to harvest a lot. Organic does not give you that. So they use poisonous chemicals. Sometimes you tell them not to use it and they still do. They tell you 'no I've tried to learn about the insects or fungi but they still did not die so I bought it.' Then you ask her 'why would you do that?' and then she'll tell you 'no I didn't.' So your expertise is not appreciated" (Expert2_Ministry, Pos. 114).

Farmers are only just beginning to realise that their land may have become less fertile after many years of using various chemicals. It is possible that this has also had a negative effect on the important bacteria and insects in the soil, which could leave plants less vulnerable to infestations (Employer2, Pos, 54; W10_self-sufficient, Pos. 98). Another observation I have made is the inadequate disposal of empty bottles, as evidenced by the images below. During my visits to various agricultural sites, I have noticed an alarming number of open cans lying around, in close proximity to the fruits and vegetables, and even surround the women's lunch break area. This issue, if left unaddressed, could have a significant and long-lasting impact on the ecosystem.

"They have no toilet or a place where they can rest and lie down a bit. They are next to the agricultural site where they just sprayed the chemicals and then they sit next to it and eat their lunch" (Expert2_Ministry, Pos. 128).

During my three fieldwork trips I have seen a number of chemicals in open fields. I would like to point out that all of these chemicals were clearly marked with warning signs, similar to the one shown below, indicating possible toxicity.

Figure 25: Pesticides lying in the field (own picture, 2024).

Figure 26: Peppers sprayed, Monastir (TU) (own picture, 2024).

Figure 27: Peppers plant infested, Monastir (TU) (own picture, 2024).

The intersection of climate change, gendered labour divisions, and economic precarity makes female agricultural workers particularly vulnerable, causing their health to deteriorate further and leaving them with no choice but to bear the consequences themselves.

Ultimately, pesticide exposure among female agricultural workers in Tunisia is not just a health risk but an example of systemic neglect and short-term thinking. These women perform essential agricultural tasks, yet they are left unprotected, uninformed, and untreated when their health begins to collapse. Addressing this crisis requires urgent policy interventions, including mandatory safety training, access to protective equipment, and the enforcement of health regulations in agricultural workplaces.

6.2.5 Social security

Having a formal situation with informal work conditions, low wages and long working hours, as well as precarious health risks due to climate change, work routines, lack of protection equipment and the use of chemicals, the additional issue of a complete absence of healthcare for agricultural workers makes their situation even worse, as it overlaps with the above-mentioned aspects on the micro-level. Without health insurance, many women cannot afford medical treatment, forcing them to continue working under hazardous conditions just to be able to afford the bare necessities. Their bodies bear the invisible cost of an industry that prioritises productivity and profit over worker's safety (Baruah & Najjar, 2022). It is important to acknowledge the role of employers in providing support to their employees, particularly in cases of accidents at work. This support, though not formalised through social security arrangements, is often a valuable benefit for those who rely on it (Employer1, Pos. 70-72 &; Employer2, Pos. 80-81; W8, Pos. 293). However, it should be noted that this benefit was at the employer's discretion, and many women were aware of their own responsibility to ensure their well-being and health.

"*There's nothing. There's nothing. Forget that there's something like protection. Forget it there's no protection. People in agriculture in general have no protection. If something happens you just have to deal with it*" (W2, Pos. 168).

"*The solution is to heal myself, nothing else*" (W4, Pos. 35).

Despite numerous state and NGO-led initiatives aimed at reducing poverty, rural women remain in a cycle of structural poverty. Although programs offering direct assistance — whether financial aid or employment opportunities — exist, they fail to provide long-term security. The combination of poor infrastructure, restricted mobility, and financial hardship significantly limits rural women's ability to access critical services (Gueddana, 2021).

"*So there is a law regarding this, since 2019, I think nr. 319 (see table on p. 63:* Law 30, 1960). *It's about the female workers in agriculture and how they're getting registered into social security. But at the same time people did not show up. It was officially advertised but nothing happened*" (Expert2_Ministry, Pos. 93).

Illustrating this precarity the FTDES report showed that a significant proportion of the population is experiencing a lack of social coverage, with 92% reporting that they have no insurance through the National Fund for Illness (Al-Attar, 2023).

Tunisia has made efforts to improve healthcare access, yet rural women continue to face obstacles due to systemic deficiencies in the healthcare system. Many rely on poorly equipped Basic Health Centres (CSBs) and district hospitals, which lack both material and human resources (Gueddana, 2021). Long distances to healthcare facilities, inadequate transportation services, and financial constraints make medical assistance, including maternal healthcare, difficult to obtain. On average,

rural women travel over four kilometres and take more than an hour — often on foot — to reach the nearest health centre, making prenatal and postnatal care particularly inaccessible. This lack of access contributes to higher maternal mortality rates, disproportionately affecting socially and economically disadvantaged women (Gueddana, 2021).

As I mentioned before, it is fortunate that 11 out of the 16 women I interviewed have good access to the various treatment options in the city of Monastir. However, this access does not guarantee good health service. Firstly, the national healthcare system is completely overloaded, but women working in the agricultural sector may not be in a position to afford private clinics, where the services cost much more. They often have to rely on credit for their medical bills, which puts pressure on them to pay back with such low wages.

"*The doctor (private) wanted 3'000 TND and the doctor (general hospital) wanted 1'000 TND*"
(W5/W6/W7, Pos. 210).

"*Until know I have open loans* (= medicine bought with credit) *you understand*"
(W1, Pos. 218).

Secondly, the Tunisian healthcare system is organised in different folders, with the colour scheme defining the accessible treatment options – private paid health insurance (25% Al-Attar, 2023), a card for the disabled (6% Al-Attar, 2023), or a regular payment of 270 TND monthly for the most poor in society. In general, the white folder (47% Al-Attar, 2023) offers its holders the chance to get very cheap, even free medical treatment, but none of the people I interviewed could explain exactly how this system works. Despite the cost reduction, Tunisia is facing challenges, including a shortage of medications and medical personnel, which results in long waiting periods for appointments (Expert2_Ministry, Pos. 101/103).

Agricultural work in Tunisia remains one of the least protected sectors, with most female workers lacking social security coverage. The informal nature of their employment means they are often unregistered in the National Social Security Fund, leaving them without essential protections such as pensions, maternity leave, and compensation for work-related injuries (Bensaad, 2019). Even though laws exist to ensure social protection, their implementation remains weak. Only 12% of employed women in rural areas who work in agriculture are covered the Social Security system. (Gueddana, 2021).

Agricultural women workers face severe occupational hazards without adequate health and safety protections. A study conducted in 2020 found that 60% of them had experienced a workplace accident and 80% never received medical check-ups (FTDES, 2024; 2). Moreover, workplace accidents often lead to severe injuries, with fractures, fainting, and even miscarriages being reported (National Working Union, 2020).

It has been reported by all the women with whom I have spoken in an interview context that the concept of paid sick leave or coverage for work absence due to an accident is not something that is currently in place.

A growing concern within the agricultural workforce is the aging population, particularly women, who often continue working well into old age due to the absence of pension funds. The proportion of agricultural workers over 60 has more than doubled in recent years (Gueddana, 2021). Unlike workers in formal employment sectors, women in agriculture receive no retirement benefits and must keep working to sustain themselves and their families (Baruah & Najjar, 2022).

One of the women I interviewed had been working on governmental agricultural land for more than two decades. The government offered a pension, the work conditions were less exhausting, and the maximum of working hours per day were respected. However, after her retirement, Woman 15 found herself with 185 TND per month, while her rent was around 250 TND per month (Position 80). This is why I met her working in the fields. Despite having children, she had to continue working to ensure her livelihood.

In general, older women seeking agricultural work face additional discrimination, as employers prioritise hiring younger workers who are physically stronger. As one woman at a press conference expressed, "An old woman who has no social security, who goes looking for agricultural work, the farmer picks a young woman, because they're stronger… But she has worked and worked, and when she got old and wants to pay social security, he does not accept her anymore" (FTDES, 2024; 1). This reality highlights the intersectionality of age, gender, and economic insecurity, where older women are excluded from the workforce despite years of labour that are not even recognised or compensated. Without pension funds or retirement options, they are left in a state of perpetual vulnerability and complete dependence on their adult children to finance them. This further restricts their ability to make decisions about where to live, as they may sometimes need to leave their neighbourhood and move with their children, taking over the role of a nanny (W15, Pos. 141).

To sum up, the precarity of rural women's labour and this cycle of dependency first on their father, then husband, and then mostly sons over a whole lifespan is deeply tied to existing power imbalances and gender inequalities. Many married women are financially dependent on their husbands, limiting their bargaining power within both the household and the workplace (Al-Manaei, 2016). Without legal protections or employer accountability, they remain vulnerable to exploitation, unsafe working conditions, and job insecurity. Pregnancy presents another layer of vulnerability, as many women risk dismissal when they become pregnant or health damages when they are allowed to stay at work. Maternity leave, while theoretically guaranteed, is rarely enforced, leaving women without income or job security during and after childbirth (Al-Manaei, 2016). None of the women I interviewed mentioned receiving paid maternity leave, which is a dilemma for them as they have to balance their professional lives with their personal responsibilities This will be explored in more detail in the section on gender roles (see p. 109 to 113 in this thesis).

To ensure the social security of women in agriculture, systematic reforms are necessary. Guaranteeing legal recognition of their employment status, implementing employer accountability, and expanding social security coverage are crucial steps toward achieving economic justice for these workers. Additionally, improving access to healthcare services, transportation, and education can help to break the cycle of poverty and enhance their overall well-being. As one agricultural worker put it, "We want ourselves to be insured. If something happens, one has no insurance. One is afraid to die or have an accident. Because our rights are nowhere, not to be found" (FTDES, 2024; 1).

Application Ahimini

The launch of *Ahmini* aimed to close this gap by offering a digital solution that facilitates access to social security and health insurance and counteracts the fact that social security remains an inaccessible privilege for women working in Tunisia's agriculture. However, its impact has been mixed, reflecting the deep-seated inequalities and systemic challenges faced by rural women.

"*So if one dies they find some widow retirement payments. It's just unnecessary. So Ahmini for example, what should it protect you from? One can't even make a safe living, how should one deposit…*" (W10_self-sufficient, Pos. 172).

Women working in agriculture often earn such insufficient wages to cover even basic needs like food, education, and healthcare (Ahmini, 2017). Many remain unregistered in the national social security system. Decades of governmental efforts failed to reach them, due to logistical barriers, lack of awareness, and deep mistrust towards institutions (CIHEAM, 2020). I also sensed a certain degree of mistrust, as many of the women I spoke to prior to the interview expressed concerns about being featured on national television as a marginalised segment of society. They told about instances when journalists, government representatives and scientists visited them at their workplace, often accompanied by cameras, and made promises regarding improvements to their precarious situation. Additionally, the experts did not seem comfortable to discuss any systemic issues related to the working conditions of women in agriculture. I always had my UZH card with me, which increased the women's willingness to talk, as this was an interview for a Master's thesis in Switzerland.

Launched in 2019 by M. Khelifi, an IT engineer from the *Kairouan* region, *Ahmini* is a digital micro-insurance platform designed to integrate rural women into Tunisia's social security system (BIAT, 2020). The initiative allows female agricultural workers to pay social security contributions remotely via mobile phones, avoiding the need for physical access to government offices. A small daily withdrawal of 1 TND from their mobile phone credit covers their insurance, making the system more accessible to those with limited financial means. Once registered, women receive their care booklets, enabling them to access healthcare services (CIHEAM, 2020).

By leveraging mobile technology, *Ahmini* sought to bypass the bureaucratic hurdles that previously excluded rural women from the formal healthcare system. It also aimed to empower them by raising awareness about health services and providing updates on medical advancements via SMS.

Additionally, free transport services were included to ensure easier access to healthcare facilities (Ahmini, 2017).

Despite its innovative approach, *Ahmini* encountered significant barriers to widespread adoption. The requirement for a smartphone proved to be a major obstacle, as many rural women do not own such devices or do not have stable internet access (Bensaad, 2019). Additionally, the program relied on consistent monitoring through labour inspectorates — an aspect that was never fully implemented. Many women, already wary of official institutions, remained hesitant to enrol, fearing additional financial burdens or bureaucratic exploitation (Ahmini, 2017). The forward-thinking idea completely collided with the economic and social reality of female workers (Al-Attar, 2023).

"*Ohhh it's all about money and expenses. Wifi for example we don't have internet. So Wifi I have to pay 50 TND and it's only enough for 3 days. So each month I have to pay 25 TND for only the Wifi. And then they have online courses and you have to pay for it*"
(W10_self-sufficient, Pos. 161).

It came as something of a surprise to me that none of the 16 women I interviewed had an idea about *Ahmini*, given that *Kairouan* is a neighbouring governorate to the *Sahil* region and that the digital micro-insurance platform has received quite a lot of advertising on Facebook, the most successful social-media platform for reaching wide ranges of the public.

"*I always hear of something and go on because in Tunisia nothing 'for real'*" (W2, Pos. 129).

"*Yes I've hear of it but that's all just talk. It's like before political elections the president comes and tells you 'I'll do this and that' and then it's just to get your vote. It's the same, just talk. Talk for the papers*" (Employer2, Pos. 107).

Although the initiative aimed to integrate 500,000 women into the social security system, by June 2020, only 15,000 had registered (Bajec, 2020). Misinformation, technological illiteracy, and lack of trust in digital services played a significant role in this low adoption rate. Furthermore, *Ahmini's* effectiveness was hindered by a lack of structured state support. While new partnerships were established between the government and private sector startups to enhance access, the initiative struggled to make up for the initial enthusiasm (Gueddana, 2021).

So with the application Ahmini we made a sensibilization of 1'000 women. So you could deposit for yourself and also could increase the amount a little and the you were able to sign up a work insurance and 'capital DDC'. When they started with the project they found women with the white folder, let's say low-tax. And they also have the 270 TND from the government. So they found themselves if they would sign up with Ahmini they would lose all this privileges. If you put your name on their platform you lose your other privileges. So they quit. … But there is a whole law on how to regulate social security. But only 10% of the women made use of this new law. So and Ahmini they did not plan to offer them social security but more the option to deposit money from far with

Telecom. *Because for these women it's difficult to come from Mzaghoua to Monastir to only deposit money. So they tried to offer them SIM cards to deposit their money and in instalments, so every day 1 TND. So after 3 months you saved 75 TND. So this whole project just did not continue, I don't know why*" (Expert2_Ministry, Pos. 93).

The challenges faced by *Ahmini* highlight the intersectional nature of rural women's struggles. Many are burdened not only by economic deprivation but also by gendered power dynamics that limit their autonomy. Without financial independence, some women rely on male family members to facilitate registration — a dependency that further alienates them from direct access to their own social rights (Baruah & Najjar, 2022).

The digital divide plays a crucial role in reinforcing these inequalities. In order for digital extension services to have a positive impact on rural development, they must be customised to the specific needs of marginalised populations, and especially women. Approaches such as SMS-based guidance, community outreach, and localised registration assistance could enhance engagement. However, without addressing fundamental barriers like digital illiteracy and mistrust, technological solutions alone cannot fully resolve the exclusion of rural women from social security systems (Baruah & Najjar, 2022). As one woman poignantly expressed, "We work and work, but when we get old, no one credits our labour. And when we try to secure our future, they turn us away" (FTDES, 2024; 1).

In the hope of gaining a more in-depth understanding of the application's failure, I tried to arrange a meeting with Mr Khelifi via Facebook. Unfortunately, when I arrived in Tunisia, he had travelled to Qatar and never got in touch again. This meant that I was unable to follow up on the failed approach, its connection to the national telecommunications service, Tunisie Telecom (TT), and the support provided by the government.

Unions

In addition to the lack of on-site governmental support and fundamental technical barriers, rural women's struggle is compounded by the absence of effective union representation. While efforts have been made to organise women and improve their rights, systemic barriers continue to limit their participation in trade unions and cooperatives.

The agricultural sector remains one of the least unionised industries due to the dominance of seasonal and family-based work. The temporary nature of employment makes it difficult for women to engage in collective action, and many fear retaliation from employers if they attempt to organise themselves. As a result, women often refrain from union participation, further weakening their ability to demand better wages and working conditions (Al-Manaei, 2016). From my observations, it seemed that many of the women I interviewed did not appear to have any formal ties to unions or institutions that might have supported their claims. It came out that their primary focus was on securing a livelihood, without necessarily having the energy or inclination to engage actively in such unions. The one exception was W10_self-sufficient, who has some connections to the training centre in *Jemmal*,

which will be discussed in more detail in the section about resources (see chapter 7.4.3 in this thesis), where she was one of the first to participate in a training program in 1992 (Pos. 51).

"*A community where we encourage them if they find themselves with problems after with the bank, organisations, customs, we tell them to call us. So that we can help them and stay in contact*" (Transcription_Expert1_TrainingCentre, Pos. 77).

Rural women's access to professional organisations and cooperatives is severely limited. Structural inequalities, including lack of education and restricted decision-making power, exclude them from political and economic discussions that directly impact their livelihoods. Without adequate representation, they are left without a voice in negotiations over land leases, agricultural investments, or employment contracts (Park et al., 2015).

Trade unions and civil society organisations play a crucial role in advocating for agricultural women workers' rights. In some regions, such as *Zaghouan*, farm workers successfully organised strikes with the support of the Tunisian General Labour Union (UGTT), demanding wage increases and fair distribution of agricultural revenues (Ayeb & Bush, 2014). However, these cases remain isolated, as unions historically have not prioritised agricultural workers, despite the urgent need for representation (Al-Manaei, 2016).

To address this gap, initiatives have been launched to encourage women's participation in trade unions and cooperatives. The FAO/IFAD-supported the Agricultural Development Group (GDA) *Sabaihya* in *Zaghouan* is one of the few examples of a women-led agricultural cooperative aimed at improving rural women's working conditions and integrating them into economic activities (Gueddana, 2021). Expanding such initiatives to other regions, such as the *Sahil* region, could empower women on a macro-scale by giving them greater financial independence and stronger collective bargaining power.

"*You see, Monastir is seen as a place for tourists and they don't think that there is agriculture*" (Transcription_Employer2, Pos. 108).

One of the primary barriers preventing rural women from joining unions is the lack of awareness about their rights. Many female workers do not understand the role of unions or see them as a viable means of protection. Moreover, the absence of local and regional trade union structures makes it difficult for agricultural workers to engage in organised labour. The already mentioned fear of employer retaliation also discourages many from participating, as unionising threatens the absolute control employers exert over workers (Al-Manaei, 2016). Respecting transparency and with the aim of fostering a positive relationship, it was considered important to inform all employers about the objectives of this thesis, to preserve the complete anonymity of the interviewees, and to avoid any connection with governmental institutions prior to the interviews. To ensure the integrity of the process, it was decided to conduct the interviews during lunch breaks or after work, with the understanding that this would prevent any influence on their work duties. During the interviews, it

was made clear to the employers and the women that nothing said would have any negative effect on their work relations. However, some interviewees seemed to have concerns about potential negative consequences.

Government intervention is essential to ensuring the protection and inclusion of rural women in agricultural unions. In 2020, the *Selma Lives* campaign, launched by Tunisian feminist NGOs and labour organisations, called on the government to implement policies improving the working conditions of female agricultural workers, particularly in terms of transport safety (Bajec, 2020). Such initiatives highlight the need for state involvement in enforcing labour rights and facilitating women's access to unions.

"*So for example the ministry pays and the syndicate protects. The Union of farmers who pays? So the farmers pay the farmers. The big ones pay the small ones. They won't get in each other's way, sometimes there's a conflict of interest. That's the problem, they* (women) *don't have something to regulate/protect*" (Transcription_Expert2_Ministry, Pos. 22).

Moreover, revising the legal framework governing professional associations could help integrate more women into unions and cooperatives (Gueddana, 2021). Encouraging joint projects and raising awareness about the benefits of union membership would strengthen women's collective power and improve their working conditions. Organisations like *SwissContact*, which will be further discussed in the section about resources (see chapter 7.4.3 in this thesis), have emphasised the importance of collective structures in securing fair wages and safe environments for agricultural labourers (Baruah & Najjar, 2022).

Ensuring that women in Tunisian agriculture are represented in unions is a vital step toward securing fair wages, improved working conditions, and long-term economic security. The intersection of gender inequality, economic precarity, and lack of legal protections must be addressed at the macro and micro level, through targeted policies and grassroots movements at the same time. Strengthening trade unions, expanding access to agricultural cooperatives, and providing educational programs on labour rights will be crucial in empowering rural women.

7. Informal situation

7.1 Economic condition

After having explained the formal situation of women, working in Tunisia's agricultural sector, which becomes visible when questions are asked at local (Meso-) and national (Macro-) levels, I would like to look more closely at why women in the *Sahil* region chose to work in agriculture, despite all the inequalities they face, and ignore the existing laws and regulations.

For many women in rural areas, engaging in agricultural labour is not a choice but rather an economic necessity due to the high cost of living, which often leads to the resorting to loans to meet basic family needs (Bajec, 2020). This is also the reason given by all the 16 women interviewed, who cited their economic situation as the only reason for working in agriculture.

"*We life with the bare minimum. We don't have food. If we worked we have something for dinner to eat, if we didn't work we have nothing to eat*» (W18 _onlineInterview, Pos. 45).

"*Tell myself 'I don't have to go to work tomorrow' but then I find myself going to work anyway, as I don't have any other solution. I don't have anyone to go in my place and I don't have another income source. If I work I get paid, if I don't work I don't get paid. No one is caring about you*" (W21 _onlineInterview, Pos. 111).

Additionally, those from small-scale farming households often find themselves struggling with rising prices of essential goods, which can diminish their purchasing power despite earning an income (Park et al., 2015).

«*Oh and the expenses. Milk and the expenses for school. So all the things children have whose parents are not poor our children also have to have. How can they have it and he doesn't?*» (W12_Kroussia, Pos. 197).

"*Mmm you and your living expenses. When the living expenses rise, the salary increases ... The world gets more expensive. Everything increases with one another.*" (Employer1, Pos. 116).

As was highlighted, the majority of these women are employed in seasonal, informal jobs, with work opportunities often segmented by gendered work routines and crop type. This labour structure has the potential to reinforce their economic instability and dependence on fluctuating market conditions (Park et al., 2015). As the table below shows, although lastly updated in 2015, the average expenditure per person comes down to 74 TND weekly. When we compare this to the weekly wages of my female interview partners of 120 TND, it appears that the weekly expenses account for 62%.

	2000	2005	2010	2015
Average of annual expenditure per person	1424	1939	2601	3871
Communal Area	1726	2326	3102	4465
Non communal areas	911	1213	1644	2585

Figure 28: Expenditure per person [TND] (Ministry of Agriculture, Water Resources and Fisheries, 2024).

In order to cover essential expenses such as food, rent, electricity and water, transportation, medication, clothes, education and childcare, or occasionally new clothes, many women find themselves having to enter the workforce, despite facing challenges such as fatigue, illness, pregnancy, or caring for young children at home (W16, Pos. 63).

It is important to acknowledge the challenges faced by Tunisian rural women, particularly those from marginalised regions such as the Northwest (*Siliana, Jendouba, Beja,* ***Kef***) and the central areas (***Kairouan****, Sidi Bouzid,* ***Kasserine***). These areas are characterised by high poverty rates, unemployment, and underdeveloped infrastructure. It is also worth noting that women in these regions often have lower levels of education, with a significant percentage being illiterate. For example, in *Sidi Bouzid*, 84.2% of illiterate individuals are rural women (Al-Manaei, 2016). Educational disadvantages can unfortunately force many into informal, low-paying agricultural jobs, with little to no opportunity for economic mobility (Bensaad, 2019).

When considering the working situation of women working in the agricultural fields in the *Sahil* region, other regions can't be ignored as all interviewed women originally came from regions such *Kef, Kairouan*, and *Kasserine*. Their current situation is influenced by the experienced inequalities in their hometowns, such as poverty, a low educational background and almost no other work options.

"*Okey so you asked why they work in agriculture. So you mean the ones living in the rural parts. So in the rural parts there is only agricultural work, no production. So the nearest workplace for them is in their area. So her father or husband is a farmer, so the go to is agricultural work. So she grew up with farming and all she's learned is agricultural work. And in addition to that men do not want to work in agriculture anymore. It is not enough for them. So women are modest and accept. So even if she only gets 20 TND it's already very important for her livelihood. Men no, …*"
(Expert2_Ministry, Pos. 33).

"*Until when I went to school…. I lived in the rural area. And we had a father, may God bless his soul* (meaning: he passed away) *he had livestock. And our circumstances in the rural part and our school was bad. They didn't educate their sons nor daughters. They give us some animals and tell us to go guard them in the mountains. While shepherding every day. Then this period passed and we got married and had children. It increased more and more*, *no salary, no life security, no matter how you look at it. You find yourself with nothing. I have a son studying. I have four children. So I heard of this place and it's work options for women and men … I came here and my son and daughter are in school and I work in agriculture. I can't quit it. From his first year until he got his Bac* (= Matura in CH). *He did not repeat* (meaning: repeat a school year). *That's why I support him. Now he rents in a region and we rent here. And I work for him. I reach 50 TND and run to the post office to send it to him. So I stayed like this for two years. In the year of the revolution he failed and last year he failed again. So this year it's his third try*" (W3, Pos. 14).

While agriculture remains a key pillar of Tunisia's economy, the younger generation increasingly moves away from it. Youth, particularly young men, migrate to urban areas due to limited employment opportunities in rural regions. This shift places a heavier burden on women, as they often take on greater agricultural responsibilities in the absence of male workers (Baruah & Najjar, 2022). Many young women enter agricultural wage labour out of necessity, especially those from

landless families with no other viable means of income (Najjar et al., 2018). It was also explained to me that men either can't find work or work under poor conditions, for example in the construction industry, which means that women, even with children at home or at an older age, have to work to support themselves and their families (W3, item 20).

"*My children, the two by my side don't have a father. So I have to work for them. So now they got a little older and help me a little. So we pay rent and the expenses together. So that helps bit by bit*" (W16, Pos. 64).

The relationship between marital status and economic hardship is evident among female agricultural workers. Many single women, often young and with limited educational qualifications, turn to agricultural work due to a lack of alternative employment opportunities (Al-Manaei, 2016; Expert1, Pos 21) or to support family members, often men, who still have a chance to succeed in higher education. Even though it is very cheap to study in Tunisia, young adults who are still studying have to be supported by their families, as part-time work is very uncommon. I think it would be interesting to see if an efficient realisation of part-time work would change the economic situation. This could be a topic for a dissertation.

«*So everyone has their circumstances meaning your circumstances force me too ... We in our family, my big brother is studying, we rent him in Sfax, we rent here for us, my mother helps me and also got sick. Cancer but she got away from it hamdoullah. Meaning as I told you only the worse will lift you from the current*» (W2, Pos. 55).

However, the majority of women engaged in this sector are married, or widowed, and bear a significant share of their families' financial responsibilities For married women, agricultural work is not solely a means of personal income but a crucial financial support for their households. Many must engage in parallel forms of labour, extending their working hours to sustain their families. These conditions lead to fatigue, chronic health issues, and even malnutrition, as the burden of supporting both their families and their own basic needs becomes overwhelming (Bensaad, 2019).

"*My family didn't need the money during this time to tell the truth. It was for me, myself, me myself, to buy clothes, …. To go out and have fun for example …* -- And now (after getting married)? – *Now, now it's over* (laughing) (W1, Pos. 105-106).

Climate change and declining agricultural yields are further driving younger generations away from farming, exacerbating labour shortages in rural areas (Baruah & Najjar, 2022). In addition, Employer1 (Pos. 39) and Woman10 (Pos. 216), who both have their own fruit and vegetable farms, emphasised the importance of their children to achieve a high level of education, possibly with studies abroad, so that they don't have to follow their parents into farming.

"*Yes so they do something else. There is no future, .. where are the ones who studied agriculture. My brother studied agriculture and now he's just thrown away* (meaning: without employment). *He has a doctoral thesis*" (W10_self-sufficient, Pos. 216).

For women, whether young adults or mothers, working in agriculture, there is minimal capacity to accommodate additional responsibilities, such as caring for a sick parent or child. Frequently, young adults' future plans are disrupted by the necessity to care for a sick parent or child, consequently leading to older grandparents being neglected (W15, para. 148).

«*The circumstances…. The parent was sick and I stayed to care for him that's it. And then he got mentally ill because my father died and all…*" (W8/W9, Pos. 39).

Urgent change is needed, as the mentality and acceptance of 'sacrificing a mother's life so that a few children can succeed and Tunisia can be better for them' (W17, Pos. 5) should no longer be accepted by the system and society.

"*Meaning our work has reached to be under the worst ones. But I couldn't give up due to my children*» (W3, Pos. 91).

7.2 Gender inequalities

Efforts to achieve gender equality in Tunisian agriculture are closely linked to broader struggles for social change and justice. Addressing these disparities requires tackling existing power imbalances that shape gender relations within the agricultural sector. The concept of food sovereignty, as highlighted by Park, White, and Julia (2015), underscores the importance of control and power dynamics within food systems, emphasising the need to challenge the structural barriers that hinder women's full participation.

Women in rural Tunisia constitute 32% of the female population (National Institute of Statistics, 2014[19]). Their roles in agriculture vary significantly, ranging from farm owners and decision-makers to employees and unpaid family workers. According to data from the Ministry of Agriculture, Water Resources, and Fisheries (2017/2018), women's participation in the sector reflects both their significant contributions and the deep-seated inequalities they face.

Despite their substantial involvement in agricultural production and economic activities, rural women continue to face significant barriers to equality. Their roles, as has been explained in chapter 6, are often relegated to unpaid or temporary work, limiting their economic independence and reinforcing their vulnerability. The gendered division of labour in agriculture reflects entrenched power dynamics that position women in roles with less security, fewer rights, and limited access to decision-making (Park et al., 2015).

[19] Latest update

Recognising these challenges, the Ministry of Agriculture, Water Resources, and Fisheries established a support office for rural women in 2001 to enhance their skills, provide necessary financial resources, and improve their integration into the agricultural development process. However, without addressing the deeper structural inequalities that place women in disadvantaged positions towards men, these initiatives remain insufficient to create sustainable change. Achieving true gender equality in agriculture requires not only institutional support but also a fundamental shift in societal perceptions and power relations within the sector.

"*The right of women firstly in general is tiring,* (mumbling). *As much as I tell you, you won't stand it*" (W2, Pos. 55).

The 'Patriarchal Bargain'

Rural women in Tunisia navigate a complex system of economic dependency that reinforces gendered inequalities within agriculture. This dependency is not merely an economic condition but a form of structural violence (Ministry of Agriculture, Water Resources, and Fisheries, 2022). The concept of the 'patriarchal bargain' (see chapter 2.3.1 in this thesis) helps to explain how women strategically accept certain constraints within this system, 'that's the world we live in' (W5/W6/W7, Pos. 174), in exchange for security and social acceptance, even when it comes at the cost of their own economic empowerment.

"*Because that's the right of the man and we work the double amount meaning*" (W2, Pos. 171).

"*That's something, if they would own the land, they could have a better livelihood. She's always beneath the man, the father, the brother and so*" (Expert2_Ministry, Pos. 11).

The vast majority of rural women remain financially reliant on male family members, with only 19.7% having an independent source of income. Even within this small percentage, only 4.07% operate their own agricultural enterprises, highlighting the limited access women have to financial control and decision-making power. In contrast, 80% of rural women remain entirely dependent on male providers, reinforcing traditional power hierarchies (Ministry of Agriculture, Water Resources, and Fisheries, 2022).

In my own research, I found that at least two of my interview partners did not get their side of the bargain, executing their 'masculine' behaviour and leadership (Al-Attar, 2023), because their husbands did not provide them with social and financial security, leaving them completely dependent on themselves.

"*Yes he did not help me and he's from these one who come back from Italy and always drinks and smoke weed and will influence my children badly. So he stays in one home and I'm in another. Everyone …. The children just call/visit him. It's annoying. And the responsibility for the children lies upon me alone. School and all … Sometimes I just ignore him because I fear for my daughters that*

he'll do something to them. One who's drunk you don't know what he's capable of and you can't do something about it" (W10_self-sufficient, Pos. 33 & 39).

"(Hearsay) *He left me and went away. He tell's me these are your children. He throws all the responsibility at the woman. Everything for the woman*" (W1, Pos. 197).

Despite their significant contribution to agricultural labour, women's work is often seen as an extension of their familial roles (see p. 37 in this thesis) and not as an independent economic activity valued by society. Women accept their informal, highly vulnerable position in the hope that their employer will keep his word and remain 'respectful' and 'responsible' (W8/W9, pos. 78). Employers, on the other hand, do not seem to trust that women, even if they are given formal contracts, will not take advantage of them. This view is deeply worrying, as women's rights are consciously ignored in order to maintain the 'higher' position with more power.

"*We don't have contracts here never. Because one day they work and tomorrow they don't show up. Make a contract or they say I'm sick, other times … because I know the law and … I worked in tourism and everything…. The one who works with a contract one day holiday, three days sick, without a ticket* (= referring to medical certificate?)" (Employer1, Pos. 58).

While institutional efforts, such as those initiated by the Ministry of Agriculture, Water Resources and Fisheries, aim to support rural women's participation in agriculture, the structural barriers to financial independence remain largely unchallenged. Without systemic change that addresses power relations and economic violence, the 'patriarchal bargain' will continue to dictate women's roles and positions in the agricultural sector. True empowerment requires not only a rethink in economic policy but also in society which confines women to dependent roles within their households and communities.

Gender roles (private space)

The private space for women in Tunisian agriculture is shaped by deeply rooted gender norms, economic necessity, and the intersection of multiple inequalities. Women's responsibilities in the household go beyond caregiving and housework; they navigate in a complex power dynamic that reinforces their dependence on male family members while playing a crucial role in household management and economic survival (Gueddana, 2021).

The socialisation of the 'patriarchal bargain' is reinforced across generations, as some mothers continue to teach the same values to their children. This is illustrated by the two statements below, where a young woman's agricultural salary pays for her brothers' university fees and rent, while she also has to care for her grandfather, and a mother who has to cook for her adult son when she comes home from agricultural work. While this arrangement provides stability, it also entrenches gendered economic inequalities that limit women's ability to achieve financial independence (Gueddana, 2021).

"*I for example have my grandfather at home, an old men, I get home and ….. stressed to make him something to eat, sometimes I get back* (wo work), *sometimes I don't get back because I have to care for him*" (W2, Pos. 153).

"*And the other* (= adult son) *is also at home. He waits there until I come home in the afternoon to cook for him dinner. And sometimes I find him very hungry*" (W7, Pos. 208).

Despite their double contributions in both agriculture and the household, women's decision-making power remains limited. While male family members acknowledge women's expertise in managing household budgets and tending livestock, these roles do not translate into broader authority over land or financial assets. Women's participation in financial decisions is often portrayed as a form of 'jointness' rather than an expression of real power. Consequently, while women shoulder much of the household's economic burden, their ability to shape major decisions remains restricted (Najjar & Baruah, 2024).

The long working hours involved in physically demanding agricultural work, followed by unpaid domestic responsibilities such as childcare, cooking and cleaning, can be exhausting for these women. This relentless workload can lead to high rates of fatigue and stress-related health issues, with 60% of rural women in low-income regions such as *Jendouba, Kef, Kasserine,* and *Gafsa* suffering from work-related illnesses (Bajec, 2020).

Many of my female interview partners reported that when they come home from work, despite their exhaustion, they have to cook dinner, clean the house and tidy up , leaving little qualitative time for their children or their husbands (W1, Pos. 45; W16, Pos. 85).

"*Also the homework you won't find the time to ask them about it or help them*" (W12_Kroussia, Pos. 120).

"*Maybe from the exhaustion you feel tired. You can't find yourself when you get home, you have not cocked nor cared for the children. If you finish your chores you … there is nothing left, you don't talk to your husband nor the children* (grinning -> referring to intimacy)" (W11 _Kroussia, Pos. 170.)

Apart from the physical strain, their situation is made even more difficult by the fact that women are expected to continue caring for children, the elderly and sick family members, often without adequate support. As one female worker from *Sidi Bouzid* describes, financial necessity and caregiving demands prevent her from looking after her own health, even when faced with the need for multiple surgeries (FTDES, 2024), or experiencing extreme tiredness due to lack of sleep, as was described by Woman14.

"*I get up at 4am. 4am is needed so you can cook lunch for your children and wake them up to get them ready for school*" (W14_Kroussia).

This situation illustrates the complex interplay between economic challenges, social expectations, and the impact on individuals' well-being. The home, which should be a space of refuge, is often another site of inequality and, in many cases, violence. Economic dependency and social norms make it

difficult for women to escape cycles of gender-based violence, with many experiencing verbal, physical, or moral abuse from their spouses (Bajec, 2020). Long working hours in agriculture, combined with the stress of financial insecurity, can exacerbate tensions within the household and lead to an increase in domestic violence. Even when women contribute substantially to the family's income, they remain disproportionately vulnerable to mistreatment, reflecting their lower social status within both the home and the broader community (Adıbelli et al., 2022).

In my own research, none of the women drew such a picture of home, and I did not explicitly ask about it so as not to prolong the interviews. Instead, they revealed another worrying issue: the neglect of young children due to their mothers' long working hours. Due to the precarious economic situation, decreasing help from family members or neighbours, or unreliable childcare facilities, babies are sometimes brought to work in a basket covered with a blanket (W10, Pos. 242; W14, Pos. 280, W11, Pos. 286). Because of the risks involved, many women see no other solution than to leave their toddlers neglected at home. They prepare their lunch, let them watch cartoons on TV, secure the house and, if possible, ask older siblings to look after them (W3, Pos. 129; W10, Pos. 242; W11, Pos. 286; W16, Pos. 126).

"*Sometimes she locks them in. She'll leaving nothing with them so that they can't hurt themselves or doing something bad. So she locks them in the room and brings the key with her. She gives them toys to play with them a little and leaves them like that. She does not have the possibility to hire a nanny. She does not have the money to pay this woman. For like 50 TND for a month or 80 TND she does not have that. For example she worked today for 15 TND. She buys with this money diapers or milk for her children and diner. There isn't any saving. Sometimes the rent is…. She says 'they've kicked me out, I don't have the money to pay the rent because I have the children. My husband drinks he does not care for me.' You understand. Like that. 'wallah he left me and went away. He tell's me these are your children. He throws all the responsibility at the woman. Everything for the woman. Everything for the woman. You understand, like that*» (W1, Pos. 197).

Tunisia has a unique history of reproductive policies that have shaped family dynamics and gender roles within households. Family planning initiatives, including access to sterilization, abortion, and economic incentives for smaller families, have influenced women's roles in the private space. While these policies have provided women with greater control over their reproductive decisions, they have also functioned as a means of state intervention in personal decisions, reinforcing the connection between women's fertility and national economic planning (Gastineau, 2012).

Gender Roles (Public Space)

Despite shifts in social attitudes over time and space, women in agriculture still experience exclusion from policy-making and are constrained by gendered stereotypes that reinforce their economic and social vulnerability (Jehouani & Meryem, 2023). In my research, I found that three distinctions are

made about the roles women are expected to play: physical appearance, behaviour towards men and behaviour in society.

While women's participation in agricultural labour is undeniable, public perception and institutional frameworks often minimise their contributions. Policies continue to overlook their roles, which results in the institutional neglect of female farm workers and their needs. (Jehouani & Meryem, 2023). Historically, social changes, such as the campaign against the *sefsari*[20], symbolized efforts to redefine women's roles in public spaces and their physical appearance, but these efforts have had no effect on the agricultural sector (Gastineau, 2012). When working in agriculture most of the women dressed without showing much skin, which protected them from the sun and any kind of harm such as scratches and stings. However, the fact that as almost all of them wore a *Hijab,* was also due to their religious beliefs. But as Employer2 explained, they can't just simply cool themselves with a bucket of water.

"Men are physically more strong, they can endure more, not like women. Men even when it gets very hot, they just take off their clothes and empty a bucket of water over himself. It's not the same for women, they don't have anywhere to shower. So you kill her with the chemicals and leave her with a bad smell" (Employer2, Pos. 126).

The feminisation of agriculture has altered traditional gender dynamics, but the overarching framework of male superiority remains intact. While men have lost certain privileges in the agricultural household structure, women's economic gains have not translated into full social empowerment. Rather than a radical departure from traditional gender hierarchies, these changes represent an adaptation within the same structural framework, where men maintain symbolic dominance despite shifts in economic contributions (Latreille, 2006).

According to Expert2, a 'no' could be punished with the termination of her work (pos. 23), and Woman3 (pos. 120) and Woman15 (pos. 103) agreed that women should not behave like men at work, such as taking breaks, working slowly and loudly. 'Feminine' things like going to the toilet or menstrual cramps are not to be discussed openly, even among women, and it is considered even more shameful to mention it to a man (W1, pos. 186). Also, discussing wages is not accepted (W4, pos. 29). But there was also power, where women decided to give me an interview even though their employer did not like it and described them as 'difficult', or where they felt empowered by using their 'devilish' tongue, toughness and strong personality when engaging with other male farmers or employees (W10, Pos. 203; W16, Pos. 132).

However, within households, gendered labour segregation and intra-family tensions shape women's experiences in agricultural work. Married women, particularly those entering a household through marriage, navigate complex power dynamics. Initially they may fight for autonomy but later they

[20] White overcoat to cover the female body and hair as a whole, and at the same time serving as a protection against the sun.

assert their authority over younger women who enter the family structure (Latreille, 2006). The evolving role of women in agriculture is therefore not only about economic participation, but also about renegotiating power within households and communities. Young women should no longer be brought up to stay at home, to have no idea of other places (W1, Pos. 61) and to accept being shouted at by their male employer.

"*He yells at them yes he yells at them a lot. But if your well-behaved and work he won't bother you the truth. But if he brings you 50 boxes, you have to finish 50 boxes*" (W1, Pos. 147).

Women in agriculture are further disadvantaged by their limited access to organised labour structures. Farmers' unions in Tunisia, as well as in the wider MENA region, rarely address issues specific to women workers, focusing instead on access to resources such as fertiliser and water rights. The lack of advocacy for fair wages, safe working conditions and labour protections further entrenches their precarious status in the workforce (Baruah & Najjar, 2022). Furthermore, their exclusion from policy and decision-making structures means that their concerns remain unaddressed. Women have fewer opportunities to organise or participate in agricultural governance, limiting their ability to influence decisions that affect their working conditions and livelihoods. Efforts to increase their participation in these spaces require structural change on the micro-, meso- and macro level, such as institutional support from NGOs, gender quotas, and policies that recognise their dual responsibilities at work and in domestic life (Baruah & Najjar, 2022).
Nevertheless, the women I met felt proud and empowered to have the strength to deal patiently with their situation (Expert2, Pos. 36) and to earn their own money without begging, cheating or stealing (W3, Pos. 112; W8/W9, Pos. 134; W10, Pos. 256 & 260; W16, Pos. 134).

Sexual harassment

But despite this self-given empowerment by some women, the harassment of women in Tunisian agriculture in general is a reflection of broader societal inequalities that expose them to various forms of violence, particularly in workplaces, where they endure harassment in silence (Gueddana, 2021).
Violence against women is widespread in all sectors, but it is particularly common in rural environments, where traditional gender roles prevail. Nearly half of all rural women report that they have experienced some form of violence in their lives with 48.7% affected in rural areas specifically (Gueddana, 2021). This violence manifests itself in various ways, from verbal abuse and physical assault to economic exploitation and harassment at work. One in five women surveyed admitted to being harassed or assaulted by their employer, although the real figures are likely higher given the widespread reluctance to report such incidents (Gueddana, 2021). The FTDES report (2023) found that 78% of 500 surveyed women reported exposure to some form of violence on their way to work, with a further 3% refusing to answer the question. The graphic below provides further information on the different forms of violence experienced by women working in Tunisia's agriculture on their way to work (Al-Attar, 2023).

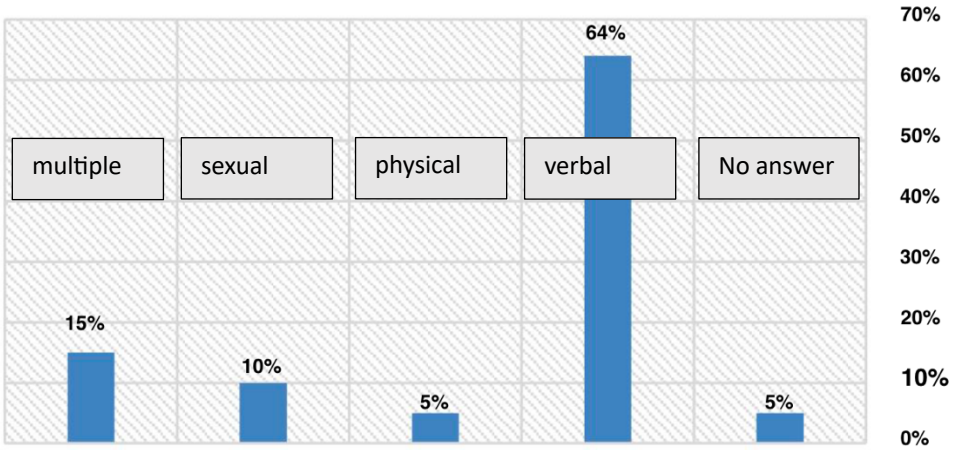


Figure 29: Type of experienced violence (Al-Attar, 2023).

All the female interviewees, except one younger woman who spoke of being offered money and silently ignored the verbal sexual comments (W2, Pos. 183-185), responded quickly to the question, giving the impression that they thought it was their fault if it had happened, and denied any such experience.

"*No no nonono Let me tell you. There is such a thing, but I have not seen it. There is a God upon me and I have not seen me and no one did it to me. Because truly, let me really tell you the truth. It's either you accept it or not. They know me that I'm difficult and strong and nobody talks to me in this topic. Understood? That's it. It did not happen to me!* (shouting)" (W16, Pos. 129).

However, when asked if they had heard about sexual harassment from other women, most said that it did happen, although mostly 'just' verbally.

"*Only with words, their tongue. They 'make' you dirty*" (W10_self-sufficient, Pos. 251).

Women working in agriculture face a distinct power hierarchy that renders them particularly vulnerable to mistreatment. Many are subjected to different forms of abuse from their employers or intermediaries, who take advantage of their fragile employment conditions and limited awareness of their rights. Fear of losing their jobs, combined with a lack of union representation and legal support, prevents many from resisting or reporting abuse (Al-Manaei, 2016). The prevalence of verbal and physical violence, as well as sexual harassment, is well known among workers, yet remains largely unspoken due to the stigma surrounding such topics. A significant number of women prefer to maintain their silence, rather than facing the prospect of further marginalisation or job loss, due to a perceived lack of social and psychological protection (Al-Manaei, 2016; Al-Attar, 2023). This is despite the government having established a helpline for such cases.

"*They made a green number for anything violating the rights of women. They care for their physical and psychological health & moral, and wage loss. But women don't call there. Because if she goes*

and talks to the experts and they tell her to report her employer he won't continue employing her. So she reports but can't work anymore. So she won't do it because she wants to work. She needs the work, so she'll stay silent. Even if the government offers help, and there are officials for their security and injuries, from physical or psychological violence. So if the economy tells you to work 15-20 hours but you only get paid 10 TND. That's also violence, economical violence, and you have the necessary things to report him. And there is the official office to listen to you but she won't do it … 'She swallows the garbage' (takl 3ala ra'sik) and continues working … they have the right to speak up, but … they're afraid of the consequences … It's something everyone experiences, even in a bus"
(Expert2_Ministry, Pos. 89 & 130).

Furthermore, harassment in agriculture is often linked to the social and economic power of male employers. The dominant role of landlords and intermediaries in hiring gives them considerable influence over female workers, allowing them to commit misconduct with little fear of repercussions (Bensaad, 2019). And if the employer is a woman, like Woman10, she has to learn to 'stop laughing and get tough' because men misunderstand her (Pos. 253).

The way harassment is perceived is deeply shaped by gendered expectations, with women often blamed for any inappropriate interactions. Many rural communities hold women responsible for maintaining a 'respectable' behaviour at work, placing the burden on them to avoid unwanted attention. This was strongly confirmed within my own research. On the one hand, male employers described the occurrence of sexual harassment as 'the nature of some women' (Employer1, Pos. 131), or 'not existent due to the unattractive physical appearance of sweaty, dirty, or old women' (Employer2, 153 & 155). On the other hand, women blamed each other for their 'seductive' behaviour.

"*Only if a woman has let herself go this path but that's her choice. But the women respect themselves and the men do so as well. Women here do not lead the men onto something*"
(W11_Kroussia, Pos. 255).

"*They respected me all … Because I'm not one of the 'hahaha' or 'here we go'. There my boss said I'm mute. Really until today they think that. She does not hear, nor speak. I hear people blabber but I just stay quiet. I don't do nothing I don't care. It's all between them and their boss. There are women, and may God forgive them*" (W15, Pos. 136).

Young, unmarried women, just as Woman2 (Pos. 183-185), are particularly vulnerable to workplace harassment, yet they are often expected to tolerate such behaviour if they wish to keep their jobs. Their ability to find work often depends on their willingness to remain silent about harassment, further undermining their capacity to demand better conditions (Salem & Yount, 2019). This dynamic not only affects their personal well-being but also limits their ability to participate fully in agriculture and improve their socio-economic standing (Baruah & Najjar, 2022).

Sexual harassment in agriculture is exacerbated by the informal and seasonal nature of the work. The lack of social protection and support makes it nearly impossible for women to report incidents or seek justice without risking financial instability (Baruah & Najjar, 2022). The consequence is a system in which harassment is not only tolerated but silence about it is expected, limiting women's ability to work safely and productively.

7.3 Mental health

By coping with all these formal and informal circumstances, the women have developed an agency, specific ways of dealing with and accepting their working conditions in fruit and vegetable farming in the *Sahil* region. Nevertheless, their mental health is characterised by experiences that highlight the confluence of economic instability, gendered responsibilities and lack of institutional support, which have a stressful impact. (Al-Manaei, 2016).

Many women express a lack of confidence in their long-term employment prospects and a fear of the unknown, yet they also have no viable alternatives for financial security. This constant state of uncertainty and job instability fosters anxiety and stress, making it difficult for them to envision a stable future. The fear of losing work or suffering from unpredictable conditions contributes to an overwhelming sense of vulnerability (Al-Manaei, 2016; Al-Attar, 2023).

"*What should I do? Tell me. There's no law. I don't have another job to do. Nothing else will hire me. So I don't have another solution*" (W4, Pos. 67).

Agricultural work demands gruelling physical effort, yet women also carry the burden of household responsibilities. Many report having no time for themselves, struggling to balance work with childcare and household chores.

"*Also my children, I get home and get angry at them because I can't stand anything*" (W14_Kroussia, Pos. 118).

This constant cycle of labour, both paid and unpaid, leads to exhaustion and emotional fatigue. Some women compare themselves with machines or trucks, working tirelessly without rest or recognition (Adıbelli et al., 2022), while Woman16 (Pos. 41) explained that there is nothing to like about her work in the agricultural sector, she just endures it to 'live'.

The burden is further exacerbated by societal attitudes that dismiss their labour. Many women feel invisible, with their work disregarded both within their families and by the government. The children often hesitate to acknowledge their mother's profession due to societal stigma, reinforcing feelings of inadequacy and alienation. (Adıbelli et al., 2022). However, although agricultural work is considered to be one of the worst job (W3, Pos. 91), all the women I interviewed clearly expressed their willingness to continue, because although they are not sufficiently recognised by society and the government, they felt encouraged in some way to choose to fight (W10, Pos. 260).

Mental health struggles among women working in agriculture are not only linked to economic hardship, but also to deep-rooted gender inequalities. Many women suffer from depression, caused by early marriage, teenage pregnancy, and limited autonomy. The combination of financial insecurity and personal hardship often leads them to seek medical help for psychological distress (Adıbelli et al., 2022). None of my interview partners explicitly mentioned that they were seeking medical help or were clearly mentally ill;; they simply described their lives to me as 'exhausting', always thinking about 'surviving'. But there were signs of mental health struggles, one woman started to cry after the interview, and another mentioned that she disliked the colour green because it reminded her of plants in agriculture (W2, Pos. 88). It seemed that they didn't want to think too much about 'giving up' because otherwise their livelihood would collapse: "*It's a huge responsibility. Now if one wastes a little, one won't survive*" (W10, Pos. 147) and risk their employment due to their unhappy mental state: "*You have to look, you can't employ someone who's unhappy. One has to get close, he/she needs to understand me and I them. … so he/she doesn't get angry" (*Employer2, Pos. 147*)*.

"*Mmm you feel like something closes your breath. I feel like heavy mmm the ache* (it hurts) *…. You feel like the breath leaves you. Of course it bothers me and I tried to tell you the maximum that I could. But you keep looking/asking and in general you'll find the same ache and the same exhaustion and …. Look I started when I was young and I'm aware/clear-headed a little and wanted to … to give you a little of the maximum … but there is the double and more than the double …..* (W2, Pos. 196).

Within the *Sahil* region, however, I found that the resilience of the women working in Tunisia's fruit and vegetable sector was remarkable. On the one hand, many of the women found meaning in fighting for a better life for their children.

"*There is nothing. If I have something to find myself in like my son who's in need, he does not have something and I get stressed and have nothing left. I only want to save the 20 TND to send it to him. So my thoughts can rest. I don't care for myself. You understand. Important is to save …. With the exhaustion and whatever comes. The only important thing is to save for my son so that he does not quit his studies*" (W3, Pos. 45).

However, phrases such as 'I force myself so that my child can be happy' (W12, Pos. 94) do not mean that they are happy, but rather that they accept that there is no other choice in order to provide a better future for their children. On the other hand, they used the term '*hamdoullah*' over 60 times (!) to express their gratitude to God and that it is God's will that they try to make the best of their situation and that only God cares for them and forgives them. Despite social media such as Facebook, they try not to focus on those who have more, but on those who have less, using their religion to accept their experienced reality of intersecting inequalities (W15, Pos. 83; W11/W12/W13/W14_Kroussia, Pos. 297).

"*And happy at the same time meaning I out of the others don't even look at their level because truly it will only make me suffer more. I look at the people who are sick, who have diabetes, high blood pressure, and so on, hamdoullah. I now with this whole situation, I say hamdoullah and more than hamdoullah. Because this is all exhausting, and all I've lived and all that happened to us, I, when my mother got sick, you forget it*» (W2, Pos. 97)

But despite their resilience, the lack of social protection intensifies their emotional suffering. As described, women are expected to endure harsh working conditions regardless of extreme weather, physical pain, or personal difficulties. As one worker from *Sidi Bouzid* describes, the uncertainty of daily transportation and the fear of possible accidents add to her mental burden. She spends her days working in extreme conditions, constantly worrying about the well-being of her daughter and, as Woman1 (Pos. 143) added, enduring arguments between the women. This constant worry can manifest itself as chronic stress, disrupting both sleep and overall well-being (FTDES, 2024).
Despite repeated promises to improve conditions for female agricultural workers, meaningful changes remain difficult to find. Many women feel a sense of abandonment and a lack of belonging in relation to the state. Despite migrating from rural areas in pursuit of a better life, they encounter an urban reality that is no less harsh and miserable than the one they left (Al-Attar, 2023). They are often unaware of their legally protected rights and left to navigate exploitative conditions without protection or recourse. A worker from *Kairouan* expresses her frustration at the government's continued inaction, highlighting that women in agriculture remain vulnerable year after year (FTDES, 2024). Women1 expresses herself like this:

"*And they're not protected by any law. Nothing! Anyone wo comes, here in Tunisia in general, and says she wants to work in the olives and agriculture and this and says she has a contract and retirement assurance and everything's fine* (pause) *there isn't. there isn't. especially the women*" (W1, Pos. 101).

However, there is a movement, which will be discussed in the next chapter, by the government and training centres to empower women to have their own projects (Expert1, Pos. 19), so that women like Woman2 (Pos. 109) can have a chance to fulfil their hopes for the future (W2, Pos. 109) and not remain subordinated to the male employer who gives them 'pocket money' (Expert2, Pos 44).
I would argue that, despite Expert2's argument (Pos. 118) that they don't, the women do occasionally think about their health and long-term effects, but as they feel that they can't change the conditions and thinking about it depresses them even more, they choose not to do so too often and find meaning in God's will.

7.4 Resources

Women working in Tunisian agriculture occupy multiple roles that intersect with broader social and economic structures. Whether as independent farmers, unpaid family workers, or primarily informal

agricultural wage workers, their experiences are shaped by overlapping inequalities and power dynamics (Park, White, & Julia, 2015). Facing these challenges, education and soft skills serve as powerful tools for navigating and countering systemic barriers, enabling women to assert greater control over their labour and well-being.

Understanding the diverse realities of women in agriculture requires recognising both the common struggles they face and the unique ways in which they respond to their circumstances, i. e. their agency. Many play essential reproductive roles, ensuring food and economic security for their households, while also caring for children and the eldery, and managing their physical and mental health. These multiple responsibilities often limit their opportunities for education and professional development, reinforcing economic vulnerability and dependency (Park, White, & Julia, 2015).

7.4.1 Education and training

The socio-economic background and level of education of women working in Tunisian agriculture have a significant impact on their access to resources, employment opportunities and overall empowerment. Rural women working in agriculture often face systemic barriers resulting from limited educational opportunities and entrenched socio-economic inequalities. Addressing these challenges requires targeted interventions to improve their access to education, vocational training and financial resources.

Abdelali-Martini (2011) highlights the critical role of infrastructure improvements, such as the establishment of primary schools in villages, in increasing female enrolment rates. Access to education not only provides women with essential literacy skills, but also promotes economic independence by preparing them for diverse employment opportunities. However, significant disparities remain between rural and urban areas in Tunisia. According to Gueddana (2021), the illiteracy rates among rural women remain disproportionately high compared to national figures. The central regions, such as *Kasserine* and *Kairouan*, where nine of my female interview partners were born, have some of the highest rates of educational deprivation, with almost 40% of women over the age of ten having no formal education or training.

In addition, vocational training opportunities for women in the agricultural sector remain scarce. A study by Al-Manaei (2016) found that 99% of female agricultural workers surveyed did not receive any formal vocational training before entering the workforce. Instead, they acquire skills informally by learning from more experienced colleagues or through direct instruction from employers. These findings are backed up by this research, as out of sixteen women, only two have received formal training. Among them Woman15, unlike Woman10 who received her training at the training centre in *Jemmal*, did not receive a written diploma from the government (Pos. 67). This lack of structured training hinders their ability to move into higher paid roles within the agricultural supply chain.

"*A training in something one likes. So one even has the trust that one has something. But we… the world did not let us do that. You understand. We did not have the situation to do something like a training or something*" (W2, Pos. 109).

The lack of access to education and vocational agricultural training preserves the dependency on unskilled labour and limits women's ability to secure better working conditions and wages. In my own research, I found that the options available to my female interview partners other than agricultural work, especially during the summer months when agricultural work was almost non-existent, were: cleaning houses; collecting water bottles, although some found it humiliating to have to search for them in dustbins; selling household products such as bread, couscous, and pottery; childcare; raising chickens in the backyard or on the roof; collecting firewood to produce coal; or staying at home and being a housewife.

"*If there is no work in agriculture I go and collect the plastic bottles. I don't waste my day!*" (W16, Pos. 38).

"*I just wait. I can't bother people. I couldn't sign with anyone, I just couldn't do it. I just live the life, you can't find it, I just couldn't do it. If time is empty* (meaning: no work) *I eat for 10 TND, it's for my home and my children and I find myself I was able to breath. I did not go to someone and beg him to give me something. I did not do that*" (W3, Pos. 43).

In addition, some women had the opportunity to work in sewing or waste factories, but some knowledge of the craft was a prerequisite for employment (W11, Pos. 51) and, although they were paid a fixed salary with a small amount of social security payments, the work was mainly preferred and taken up by young and unmarried women because of much cleaner working environment and their independence from having to look after children (Expert2, Pos. 40). However, the main problem was not age or long working hours of repetitive work in large factories, but the lack of transportation services from rural areas within the *Sahil* region to these nearby factories. Moreover, it was not only women who worked informally in agriculture who struggled with employment. The two employers interviewed in this study also had other jobs, such as working in the tourism sector as a cook or car painter, in order to survive economically. And a bachelor's degree, even in agriculture, did not guarantee a well-paid job (W10, Pos. 16).

"*So many have a Maitrise (BA niveau) and they don't find work*" (Expert1_TrainingCenter, Pos. 21).

The FTDES found it to be as much as 24.3% in 2022 who remained unemployed despite their advanced degree (Al-Attar, 2023).

The socio-economic background plays a crucial role in determining the resources available to women in Tunisian agriculture. As my own research has shown as well, many women migrate from rainfed family farms to irrigated commercial farms in search of paid work, often accepting lower wages than men and enduring precarious working conditions (Baruah & Najjar, 2022). Their financial vulnerability

is compounded by inadequate access to credit, restriction on land ownership and limited representation in agricultural cooperatives. Without financial independence, rural women remain excluded from decision-making processes that directly affect their livelihoods.

Organisations such as the Tunisian Forum for Economic and Social Rights (FTDES) have campaigned for greater protection for employees and a fair distribution of resources. FTDES (2024) calls for a reassessment of the state's role in ensuring fair income distribution and access to public services, recognising that economic inequalities disproportionately affect women in rural areas. Strengthening women's economic rights requires systemic policy changes, including better social security provisions and legal frameworks that protect female agricultural workers from exploitation.

To mitigate these challenges, multi-faceted solutions need to be implemented. First, the expansion of vocational training tailored to the needs of female agricultural workers is essential. Bajec (2020) highlights the importance of integrating financial literacy, entrepreneurial skills and ongoing coaching into existing training programmes. Initiatives such as 'information points' for women can provide guidance on project planning, training opportunities and access to microcredits.

Second, supporting women's participation in agricultural cooperatives and development groups can strengthen their collective bargaining power. Women's agricultural development groups (GDAs) in regions such as *Kef* and *Nabeul* have already demonstrated the benefits of organised women's labour in securing better wages and working conditions (Bajec, 2020). Similarly, organisations such as the *Union Tunisienne de Solidarité Sociale* (UTSS) and the *Association des Femmes Tunisiennes pour la Recherche sur le Developpement* (AFTURD) offer micro-credit programmes and entrepreneurial support to enable women to set up independent agricultural businesses.

Finally, gender-sensitive policies must address the structural barriers that perpetuate inequality. Ensuring equal access to quality education at all levels is critical to breaking the cycle of rural poverty. Government and civil society efforts should focus on reducing girls' dropout rates, particularly in disadvantaged regions, and providing flexible learning opportunities for adult women who have been excluded from formal education (Gueddana, 2021).

Statistics from the Ministry of Agriculture, Water Resources and Fisheries (2024) show that the main problem is not enrolment in primary school, where the proportion of girls is high, but dropping out of higher education before graduation. However, according to women with young children in primary school, mistrust in the professionalism of teachers, the lack of an educational framework, poor infrastructure and overcrowding create such poor educational conditions that expensive private tuition, known as étude, is increasingly necessary if a child is to succeed at school. This creates a widening gap between rich and poor (W10, Pos. 159/191; W11, Pos. 192; Al-Attar, 2023).

> "W12: *They have no respect. They don't respect that some children have families with nothing.* W11: *These are the teachers we have. But then you have classes with 40 children and the schools are not good* (meaning infrastructure). *And also the toilets, and the taps are removed so that the children don't splash the water. That's not okey but if you would go sue you won't get your rights.*

You find your children on the streets. Normally they don't should get out of school. Your child is in first grade and then you find them on the streets" (W11/W12 _Kroussia, Pos. 307-308).

The intersection of educational disparities and socio-economic background has a significant impact on the resources available to women in Tunisian agriculture. Addressing these issues requires a comprehensive approach that prioritises education, vocational training and financial inclusion. By supporting women's empowerment through targeted policies and community-driven initiatives, it should be possible to create a more equitable agricultural sector where women can fully participate as skilled workers, entrepreneurs and decision-makers. As highlighted by Abdelali-Martini (2011) and FTDES (2024), bridging these gaps is essential not only for women's economic well-being, but also for the broader development of rural communities in Tunisia as a whole.

Programmes that address inequalities like gender norms, financial constraints and structural barriers are essential to promote gender-inclusive agricultural development. In response to rural poverty, the International Labour Organisation (ILO) has implemented participatory training projects that equip women with technical agricultural skills, such as pruning, grafting and packaging agricultural produce. These initiatives have enabled women to move from precarious, informal work to more stable, skills-based employment (OITE, 2023). However, the success of such programmes depends on their accessibility, particularly in the interior of the country, where limited infrastructure, cultural restrictions or simply a lack of knowledge about such training programmes (W3, Pos. 61/62) and the fact that employers do not necessarily need highly skilled women for simple, repetitive tasks (Employer2, Pos. 157) often prevent women from participating. However, the following quote shows another side, which I think is very important, because women working in agriculture must not just be seen as helpless and completely dependent victims of what is certainly a precarious situation. They must also take responsibility, as will be further discussed in the section on the training centre in *Jemmal*.

"*And we who are responsible for the rural women offer training on how the working conditions should be and how women should stand up for their rights. And we tell them. But in reality they don't really follow our suggestions. Sometimes the employer of these women doesn't prepare for the required circumstances, that's one thing. And secondly, they, just like W10 to whom you went, it's her own project/land and even she does not prepare for the required circumstances for herself. So we even bought them to put on* (meaning masks, gloves, etc.) *and they wouldn't wear it. So she would say something like 'it disturbs my breathing' or 'the gloves bother me, it's like I can't feel my hands'. They don't think about their physical health. That's the last thing they think about. And we show and explain it to them how to use/work, but they don't follow the instructions. And their employer does not follow as well. He just says 'I did not know about these instructions'"*
(Expert2_Ministry, Pos. 58).

Another critical aspect of agricultural education is the integration of gender-sensitive training. Research has shown that many women prefer female counselors because of cultural restrictions that limit their interactions with men. Incorporating these cultural sensitivities into training programs increases participation and effectiveness for women, but also creates new barriers to gender interaction. (Najjar & Baruah, 2024).

Financial training and entrepreneurship programmes also offer viable pathways for economic empowerment. 'The Raida programme', initiated by the Tunisian Ministry of Women's Affairs, has supported female entrepreneurs by providing financial assistance and business training. However, limitations in the legal framework and discriminatory lending practices continue to prevent many rural women from accessing credit (Bajec, 2020). Addressing these systemic barriers is crucial to ensure that women can fully benefit from educational and financial resources and are not solely reliant on the success of their children to secure a potential pension and support (W2, Pos. 49).

In addition, digital education and extension services have emerged as effective tools for bridging knowledge gaps. Digital platforms, including mobile phone-based training and radio programmes, have proven successful in delivering agricultural knowledge to rural women, especially those with limited literacy skills (Ragetlie, Najjar, & Oueslati, 2022). These services can improve access to information and empower women to make informed decisions about their agricultural practices and household finances. However, as the example of *Ahmini* has shown (see p. 99–101 in this thesis), women working in the agricultural sector in Tunisia are not only excluded from digital platforms due to their lack of skills, but also simply due to the lack of modern mobile devices that would allow them to participate in phone-based training due to their economic situation

7.4.2 Soft skills

In addition to the importance of better education and training options for girls and women, there is a growing recognition of the crucial role that soft skills play in enabling women in agriculture to overcome structural inequalities and assert themselves in an industry that is often dominated by rigid power structures. These skills, which range from communication and leadership to adaptability and financial literacy, are considered fundamental tools for navigating complex social and economic environments. By developing these abilities, women can gain greater control over their work, negotiate better conditions, and build collective power within their communities (for the topic of soft skills see chapter 2.3.3 in this thesis).

As small-scale farming evolves, integration into broader networks, including corporate supply chains and cooperative arrangements, becomes increasingly necessary. The ability to communicate effectively, manage conflicts, and engage in cooperative decision-making ensures that women are not marginalised in these developing agricultural structures. (Park, White, & Julia, 2015).

Leadership skills are particularly crucial in challenging traditional power dynamics that often restrict women's participation in agricultural governance and the distribution of resources. By cultivating decision-making capabilities, women can actively shape policies that affect their work, ensuring that

their voices are heard in cooperatives, unions, and agricultural organisations. Additionally, financial literacy enables them to better manage farm-related expenses, seek funding opportunities, and plan for economic stability.

Furthermore, the ability to adapt to changing agricultural practices and market demands allows women to sustain and expand their economic contributions. The modern agricultural sector increasingly requires workers to navigate digital tools, advanced farming technologies, and financial management strategies.

Social relations, such as class, gender and ethnicity, have been shown to play a significant role in women's access to resources and opportunities. The development of soft skills can help to equip women with the means to advocate for their rights, organise within their communities, and challenge the status quo (Park, White, & Julia, 2015). In a sector where economic and social barriers remain deeply entrenched, these skills are essential in driving meaningful change and ensuring that women can fully participate in shaping the agricultural landscape of Tunisia. When interviewing the sixteen female workers, none of the necessary soft skills mentioned above were evident. However, it turned out that they also used soft skills to strengthen their social relationships, obtain various job opportunities, provide childcare and care for the elderly and maintain their mental health. The women explained that they relocate to agricultural sites within the *Sahil* region with other family members (W1, Pos. 224), that they also help each other to find work (W11, Pos. 56) and protect each other from exploitative employers (W1, Pos. 82). Furthermore, it appears that they may depend on family members, neighbours and work colleagues to ensure childcare or to look after the elderly while working long days in the fields.

"*We rescue each other thankfully. We are all Tunisians and a family. The day I fainted all gathered around me. Nono thank God. And I have a phone to call one of my children* (meaning: the sons) *like if I don't have money*» (W16, Pos. 103).

Finally, it is worth to note that their mental health appears to be influenced to some degree by the quality of their social connections at work. While Woman15 (Pos. 145) explained that she prefers to keep to herself due to disputes to avoid getting into trouble, other women such as Woman11 (158) emphasised the importance of their positive relationships during breaks to maintain their moral. Woman16 (Pos. 92) even referred to all people on the agricultural site, male and female colleagues as well as the male farmer, as one family.

It has been suggested that investing in the development of soft skills could be a way to empower individuals and contribute to systemic change. Women who have these skills may be able to break cycles of dependency, contribute more effectively to economic growth, and challenge the structural constraints that limit their potentials. This is an important aspect, why many women value the social working environment as much as the wages they earn. By integrating soft skills training into agricultural policies and programs, Tunisia could make significant progress towards a more equitable and sustainable agricultural future.

"Also the communication gets a lot better. So in the beginning of a training you'll find them very timid and they don't know each other and their communication is lacking. But with training it gets better, we say it's the soft skills that count, next to the techniques. Techniques are fine but there are other things needed. That's what makes her stronger. She than has better connections in economics and social" (Expert1_TrainingCenter, Pos. 19).

7.4.3 The influence of ongoing training programmes[21]

The training centre in *Jemmal*, Tunisia, which I had the privilege to visit and conduct an interview with the director (Expert1), along with 32 other governmental training programs in agriculture, plays a pivotal role in improving the resources available to women working in the agricultural sector. The director was kind enough to share some insights into the structure and purpose of their agricultural training programmes with me. The centre is dedicated to organising and offering training for individuals interested in agriculture, particularly rural women and young people over the age of 18, with no maximum age limit. The training covers fundamental agricultural principles, and participants who achieve an attendance rate of at least 95% receive a diploma. This diploma then allows them access to bank loans, helping them to start their own projects.

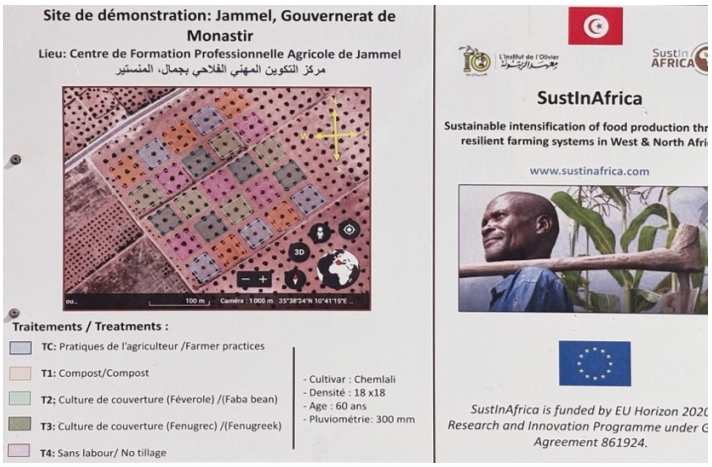


Figure 30: Overview of one agricultural training site, Jemmal *(TU) (own picture, 2024).*

Figure 31: Centre de formation, Jemmal *(TU) (own picture, 2024).*

Such initiatives aim to improve skills in agricultural work and soft skills, promote economic independence, and address multiple systemic inequalities, that hinder women's full participation in agriculture, inequalities that have been discussed under several aspects within this thesis.

The *Agence de la Vulgarisation et de la Formation Agricoles* (AVFA) was established in 1990 and has been working to provide agricultural education and vocational training. AVFA is overseen by the

[21] This chapter is primarily based on the full interview with the director of the training center in *Jemmal* (Expert1), supported with information from the official websites and Facebook pages of the AVFA, *SwissContact*, and additional scientific literature.

Ministry of Agriculture, Water Resources and Fisheries and has been facilitating training programmes that have been designed to meet the needs of different agricultural workers, including rural women. The centre in *Jemmal*, for instance, offers specialised training, equipping women with the knowledge and skills required to engage more effectively in agriculture (AVFA, 2024). AVFA's training programs focus on technical development, agricultural counselling, and innovation in sustainable farming, with the agency emphasising inclusivity by offering non-university continuing education programs designed to accommodate the realities of rural life. Women participating in these training sessions gain valuable expertise in sustainable farming techniques, agribusiness, and product value addition. Through partnerships with public and private institutions AVFA ensures that training is complemented with financial support, including access to land, state subsidies, and microcredit opportunities (AVFA, 2024).

"*They're their own boss. And that's what we want them to do, to learn and not to go back to work for someone. These women get to know the techniques we give them, and how to work for themselves, not for someone else. And also there is some training on how to work within a group. So we help them a lot, especially rural women. So they can decide if they want to work as a group or alone. So we want them to get out of the system to work as an employee*»
(Expert1_TrainingCenter, Pos. 19).

One of the most current and relevant training programmes focuses on poultry farming, requiring a minimal investment of around 2,000-3,000 TND for materials and livestock. This is particularly beneficial for rural women, as they can manage the work from home without the need for extensive travel or complex techniques. The centre ensures flexibility by either bringing training to remote areas or accommodating trainees at the centre, making it easier for them to participate. The cost of accommodation and meals is kept low, at around 5 TND per day while the training itself is provided free of charge.

Group training sessions require a minimum of 12 women, and all trainings are led by experienced instructors. The programmes have been thoughtfully designed to include both theoretical and practical components, covering a range of topics including biology, psychology, chemistry, self-protection, rights, and economics. Some courses are structured so that theoretical knowledge is an essential prerequisite for practical application, and there are follow-up visits and monitoring to support the effectiveness of the training. The *Jemmal* training centre is part of a network of 32 agricultural centres that work together collaboratively. It follows a structured and professional approach and has around 80% female applicants. This high percentage could indicate the increasing feminisation of the agricultural sector.

"*They stay in contact with their instructors a lot, and the training center. So not for a long time, but after the first month, year, two years, they stay in contact. And we also visit them. We check if they need anything*» (Expert1_TrainingCenter, Pos. 76).

Figure 32: Example of polyculture (honey, cactus fruit, grenadine (tree, light green), olive tree (darker green), pumpkin & eggplant (inside the greenhouse), almond (behind the fruit tree)), Cherahil (TU) (own picture, 2024).

The training centre in *Jemmal* tries to counteract intersecting inequalities and promotes inclusion, welcoming individuals regardless of age, gender, or education level, and there is no distinction between 'masculine' and 'feminine' tasks — everyone receives the same training together. Special attention is paid to making the training accessible to illiterate learners by providing oral instruction, repetition, and interactive methods to ensure comprehension. However, motivation is key. Participants must be willing to learn and adapt; those who are unwilling to change often drop out within the first few days. Discipline is a core value — trainees can miss a maximum of 10% of a module before being required to repeat it, and serious participation is expected.

The training centre follows a seasonal calendar, with course durations ranging from a few days to four months. It operates in collaboration with various institutions including government offices, management teams, customs, engineers, shareholders, and banks. To enrol, participants pay a small fee of 30 TND, plus 3 TND for insurance. The centre itself is funded by the government, and instructors are government employees.

It is also worth noting that the importance of developing women's technical and business competencies has been recognised by Abdelali-Martini & Dey de Pryck (2015), who have stressed the need for training in agricultural value addition, cooperative leadership, and market participation. Through better access to education and the development of skills, women in rural areas can free themselves from the constraints of low-wage labour and contribute meaningfully to the agricultural economy.

SwissContact for example (*SwissContact* 2024) has introduced various initiatives with the aim of achieving sustainable and inclusive growth, helping women enhance their business skills and secure financial independence. Programmes developed by *SwissContact* focus on technical training,

entrepreneurship, and public-private partnerships to create opportunities for women in agribusiness and rural development. These efforts align with broader objectives to empower women through vocational education and economic inclusion. However, traditional gender norms can still influence women's participation in agriculture, particularly in areas like irrigation, which is often seen as a male-dominated field with 'masculine' work (Baruah & Najjar, 2022). Limited access to training in irrigation techniques may be a factor in the reduced ability of women to adopt climate-resilient farming practices. In an effort to address this gap, *SwissContact* and other organisations advocate for targeted training programmes that integrate women into irrigation management and climate adaptation strategies (Baruah & Najjar, 2022) as well as ecological polyculture to protect intact and recover damaged ecosystems.

Expert2 highlighted regional disparities in access to support, particularly in the *Sahil* region, where there is a perception that financial aid is unnecessary due to relative wealth, while other regions receive prioritised assistance (Pos. 71). Additionally, there are ongoing training initiatives addressing the environmental impact of plastic and chemicals, although adoption remains a challenge due to short-term economic concerns of the women concerned (Pos. 116).

Training centres like the one in *Jemmal*, alongside national and international initiatives like the one by *SwissContact*, provide crucial support for women in Tunisian agriculture. It is hoped that the provision of skills development, financial assistance and targeted training programmes will help to reduce gender disparities and promote economic empowerment. It is suggested that the key to sustaining women's participation in the agricultural sector and enhancing their livelihoods will be to ensure continued investment in training and education whilst addressing systemic inequalities at the same time.

However, despite these vital contributions to the agricultural sector, rural women continue to face economic and social constraints that limit their access to productive assets. According to Gueddana (2021), many women in rural areas engage in off-farm activities such as beekeeping, livestock rearing, and organic farming, yet they struggle to obtain financial support and land ownership rights. The *Banque Tunisienne de Solidarité* (BTS) and other financial institutions, including the *Banque de Financement des Petites et Moyennes Entreprises* (BFPME) and the Banque Nationale Agricole (BNA), provide microloans and investment capital, but disparities in access to funding remain an obstacle for many women entrepreneurs (Gueddana, 2021).

8. Discussion

The working conditions of women in Tunisian fruit and vegetable agriculture in the *Sahil* region are influenced by a number of factors that can be identified at different levels (macro, meso, micro) and in different areas (politics, economics, society, geography) and interact with each other in a network of power constellations, social relationships and traditional norms. Socio-economic dynamics, gender

inequalities and structural limitations, supplemented by the all-encompassing climate change, are the main categories in which these factors take concrete shape and become visible and tangible, as will be summarized below.

The female agricultural workers at the centre of this study are exposed to all these factors and experience them in different ways, physically and mentally, as the statements in the interviews clearly show.

In order to understand the interplay of all these factors and to gain a picture of how the women experience them in their everyday working lives and how they act on the basis of their experiences, this master's thesis was based on the theoretical concept of intersectionality. Comparative literature research was supplemented by the method of field research and qualitative interviews, and the following question was formulated as the main research question:

⇒ *How do women working in Tunisian fruit and vegetable agriculture in the Sahil region describe their working conditions?*

These women, who mostly come from rural areas with limited educational opportunities, enter agricultural work due to a lack of viable alternatives. Their employment is characterised by informal recruitment processes, low wages, unpaid overtime and unsafe working conditions, which collectively add to their economic and social vulnerability. In order to improve the overall situation and to protect and value the work of these women, it is crucial to recognise the important contribution they make in the field of agriculture. All the more so as the feminisation of agriculture, due to economic pressure and urban male migration, has led to women being the main workforce in this sector today.

A key challenge is the lack of monitoring of the implementation of formal labour protection regulations, leaving many women working without contracts, which can lead to issues such as wage suppression, job insecurity, and dangerous working conditions. The lack of legal recognition further limits their access to essential benefits such as social security, healthcare, and maternity leave. Even when training initiatives, such as the training centre in *Jemmal*, aim to improve their skills and economic status, the fragmented funding from multiple organisations, which is often not aligned, can potentially reduce the long-term effectiveness of these programmes.

Another key factor is the deeply rooted social understanding of gender distribution and gender roles, which leads to gender inequality in various areas, especially when viewed from the perspective of feminist geography. Gender inequalities in the agricultural sector are reinforced by formal and informal structures, with women's roles often confined to physically demanding ('exhausting') and least mechanised tasks, while men occupy powerful, higher-paying and decision-making positions. In a patriarchally structured society like Tunisia, social norms play an important role in determining which agricultural activities are deemed acceptable for women, which restricts their access to essential resources such as land ownership, financial credits, and agricultural extension services and, at the same time, limits their ability to negotiate better working conditions or advocate for their

rights. By accepting the roles assigned to them, women are recognised by society. However, this recognition is limited to their socially 'correct' behaviour. It makes them economically and sexually vulnerable and hardly recognises their important contribution as independent workers in a sector as central as agriculture. This paradoxical situation is difficult to penetrate and improve. In order to find a solution, we need a deep understanding of the situation, a coordinated approach by the actors involved at the various levels, a change in attitude, including that of women, and above all, the active involvement of women themselves.

The intersection of climate change and agricultural vulnerabilities is a contributing factor to these challenges. As large-scale agribusinesses expand and climate change intensifies, agricultural land is becoming increasingly scarce, further reducing employment opportunities for rural women. Rising temperatures and declining rainfall negatively impact crop yields, making agricultural work even more precarious. Women often bear the consequences of these environmental shifts, often forced to work longer hours under extreme weather conditions with inadequate protective equipment. Their limited access to irrigation training and drought-mitigation strategies further marginalises them in a sector already resistant to gender-inclusive reforms.

If we take a closer look at the working conditions on the micro level, several other issues emerge that require our attention. One of them is that of workplace safety, which is closely related to physical and mental health. It is evident that women in agriculture are frequently exposed to hazardous conditions, including exposure to pesticides without adequate protection, which can result in physical health risks ranging from respiratory illnesses to reproductive complications. The lack of adequate sanitary facilities contributes to these health problems. The mental well-being of these workers is also threatened by the combination of economic instability, social marginalisation, workplace exploitation, gender-based violence, sexual abuse, and the double burden of job and family care, which can lead to increased stress, fatigue, and emotional strain.

Transport to and from agricultural sites is another area, even though not as significant in the *Sahil* region as in other, more rural regions in Tunisia, where there is potential for improvement, as women rely on unsafe and exploitative transport systems ('death trucks').

To conclude, the growing feminisation of agricultural labour in Tunisia is a consequence of shifting demographic and economic trends, particularly male outmigration. While this shift has increased women's participation in agricultural work, it has not been accompanied by corresponding improvements in rights, wages, or working conditions. Some women have taken on leadership roles in agriculture and make decisions about production and finances, but systemic barriers prevent them from fully realizing their economic independence.

And yet, despite these challenges, women's collective resilience and social connections within labour groups serve as a source of strength. Through informal networks and community engagement, they develop 'soft skills', navigate workplace hardships, share knowledge, and provide mutual support to each other. In order for society in general and agriculture in particular to benefit from these skills,

institutional backing, like strengthening trade unions, expanding access to cooperatives, and providing training in financial literacy and soft skills, is needed. Policy interventions may be able to address existing disparities. Legal provisions to ensure equal pay, strengthened social protection programs, and increased investment in agricultural advisory services could significantly improve the livelihoods of women working in Tunisia's fruit and vegetable agriculture. However, it is important to recognise that the successful implementation of all these measures requires a strong political commitment and long-term strategic planning. The increasing arrival of migrant workers from poorer regions further south could bring new challenges, including the potential for racial discrimination and shifts in labour dynamics, that could further disadvantage Tunisian female workers.

In the future, it would be beneficial for research to focus on how to facilitate women's participation in agricultural public institutions to ensure that their voices are heard in policy-making processes. Addressing climate change, labour exploitation, and gender inequalities in agriculture requires coordinated, multi-level strategies that integrate economic, social, and environmental considerations. Urgent measures are needed to ensure that economic, social and gender inequalities in the Tunisian agricultural sector are not further exacerbated and that the women who form its basis can be offered sustainable livelihoods. Following the concept of power and power relations proposed by Rowlands (1997; see p. 40 in this thesis), this means the simultaneous development of 'power from within' (related to change), 'power to' (related to choice), 'power over' (related to control) and 'power with' (related to community).

9. Outlook

The brief outlook at the end of this Master thesis sketches a few scenarios of what measures would be needed by whom and in which areas to address the key challenges in the Tunisian agricultural sector and improve the working condition of women.

9.1.1 National representation

The agricultural sector in Tunisia is closely linked to the country's socio-economic structure. When considering the future of Tunisia's agriculture, the working conditions for all those involved in the sector and food security, it could be beneficial to regularly consider important factors such as the exact temperature and water balance and to examine modern technologies for the use of grey water. As the table by the Ministry of Agriculture, Water Resources and Fisheries (2024) below shows, the accuracy of statistics in Tunisia should be improved, which would help to make long-term future plans more reliable. First of all, it would be beneficial to understand the possibilities for a future in the face of climate change and incorporate them into every national plan.

	2005	2006	2007	2008	2009	2010	2011	2012
The total volume of fresh water withdrawn	2448.3	2506.6	2540.7	2555.3	2562.2	2721.0	–	–
Waters returned to the environment without use	61.0	64.0	63.5	42.2	39.0	52.0	–	–
Net volume of fresh water withdrawal	2387.3	2442.6	2477.2	2513.1	2523.2	2669.0	–	–
Desalinated water	15.4	16.5	18.2	18.2	19.5	19.7	19.3	19.7
Reused water	67.0	67.0	67.0	67.0	67.0	67.0	67.0	–
Total volume of freshwater made usable	2469.7	2526.1	2562.4	2598.3	2609.7	2755.7	–	–
Losses resulting from leakage occurred during transport	439.0	436.0	441.0	447.0	445.0	449.0	–	–
Wastewater production	272.1	280.7	286.1	298.1	304.8	317.4	–	–
Evapotranspiration	1758.7	1809.4	1835.3	1853.2	1859.9	1989.3	–	–

Figure 33: Water balance [Million m3/year] (Ministry of Agriculture, Water Resources and Fisheries, 2024).

Second, it could be advantageous for national policy making to consider implementing policies and laws that could be equally applied to national-controlled agriculture and agricultural production by private companies. This includes financial support for the small-scale farmers. From 2014 to 2022, there has been a notable increase in these areas. It is important to ensure that those responsible are held accountable for ensuring fair and safe working conditions, so that women are not dependent on an employer's goodwill or a small-scale farmer's limited resources to improve employment conditions.

	2014	2015	2016	2017	2018	2019	2020	2021	2022
Business Sector	680241	711442	740054	771032	735043	782115	801453	828821	825707
Agriculture, Forestry and Fishing	3134	3346	3586	4098	4634	5310	5657	6308	6939

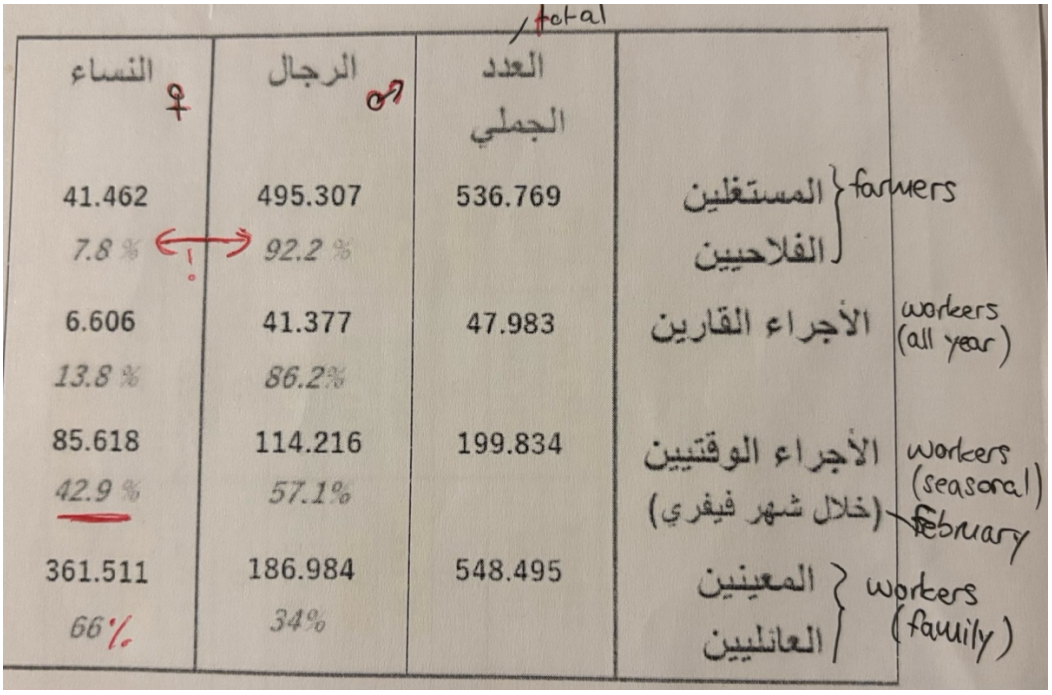
Figure 34: Private companies (Ministry of Agriculture, Water Resources and Fisheries, 2024).

"*Meaning he has credit with the one who buys him the material. If he stops, meaning he says 'I won't (continue) working', for example this year there's no water, he has to pay him but from where should he pay him? If he sells everything to pay him he won't have anything left to work. He's obligated to work. If he plays with destiny he won't be able to pay him. And then the credit gets doubled. That's what's happening in Tunisia. The small farmers are becoming less and less. Either the land is taken by the bank or he gets tired and sells because if you lose year after year after year… that's it, everything stops. And the biggest problem always is not the problem of the employees. The problem of agriculture is the markets rise and fall* (meaning: are unstable). *But the problem of the water is a big problem. The water problem is the biggest problem as there is no solution*"
(Employer2, Pos. 44).

Third, it is important to acknowledge the disproportionate impact of poverty on rural women, who often face limited access to income-generating opportunities and inadequate infrastructural support (Gueddana, 2021) and are therefore excluded from decision-making processes (Ministry of Agriculture, Water Resources and Fisheries, 2022). Participation in the formal economy can be challenging for women due to low literacy rates, traditional gender roles and economic dependency. While government programmes exist to integrate gender perspectives into development initiatives, their impact remains minimal due to weak implementation and enforcement mechanisms and the lack of valid data. The feminisation of poverty is particularly evident in rural Tunisia, where women have fewer economic opportunities than men, with only 19.3% of rural women having an independent source of income, compared to 60% of men. High production costs, inadequate credit access, dilapidated equipment, and limited vocational training further hinder their ability to enter the formal economy (Gueddana, 2021). It is also worth noting that economic crises and inflation can exacerbate food insecurity, with women and girls often being disproportionately affected by chronic hunger and malnourishment (CAWTAR, 2015).

To address this issue, it is important for the government to find ways to ensure adequate data collection on the exact number of women working in Tunisia's agriculture, both formally and informally, paid or unpaid (Expert2, Pos. 22). Only in this way can more efficient planning for the future of the agricultural sector be facilitated. The problem with existing statistics is that they are often either outdated or inaccurate. One example is the one below, which was provided to me on paper by Expert2. For instance, it lacks precision in terms of specifying the year or region, and it only

takes into account formal employees, ignoring the entire informal sector. In light of the issues discussed in this thesis, the figure of 42.9% seems far too low. However, what the statistic does show is the difference of male and female farmers, which is around 84.4%, and the high percentage of often unpaid female family workers.



النساء ♀	الرجال ♂	العدد الجملي (total)	
41.462	495.307	536.769	المستغلين الفلاحيين (farmers)
7.8 %	92.2 %		
6.606	41.377	47.983	الأجراء القارين (workers (all year))
13.8 %	86.2%		
85.618	114.216	199.834	الأجراء الوقتيين (خلال شهر فيفري) (workers (seasonal) February)
42.9 %	57.1%		
361.511	186.984	548.495	المعينين العائليين (workers (family))
66%	34%		

Figure 35: Statistics of agricultural work (Ministry of Agriculture, Water Resources and Fisheries, 2024).

Fourth and foremost, a major restructuring of national policies, the re-organisation of the entire social security system, a clear control of the practice of the intermediary, *samsar*, as well as the provision of safe transportation facilities and the enforcement of a comprehensive understanding of the impacts of chemicals on the human body and the environment could be considered as ways to ensure equitable access to resources and employment protections for female agricultural workers. In addition, there is a need for affordable childcare options to support working women, who are crucial for national food security and the economy, and to counteract the neglect of their children.

«*Like a chain. So something just got taken away from the family. They're not looking after the children. The parents just don't find the time anymore. So many bad things* (criminality), *because the mother is always far away. She used to look after the children and have fun with them. But now she's in the factory from early in the morning*» (W10_self-sufficient, Pos. 166).

The findings of this thesis underscore the need for an **interdisciplinary and trans-professional approach** – both in practice and in scientific research – that integrates agriculture, climate science, labour rights, and gender studies. Future research should prioritise collaboration between government institutions (e.g., the Ministry of Agriculture, Water Resources and Fisheries), NGOs, and

private sector stakeholders. A structured roundtable between these institutions could facilitate the development of a coherent strategy to address systemic inequalities and ensure the sustainability of Tunisia's agricultural sector. This approach would also help to re-establish the trust of working women in their own government.

Strengthening the role of women through education and changing societal attitudes to accept female business executives in the future is possible within Tunisian society, as the following two questions by the World Value Survey (WVF, 2017-2022) show:

Question	Agree strongly	Agree	Disagree	Strongly disagree	Don't know	No Answer
University is more important for a boy than for a girl	12.1 %	12.1 %	47.3 %	27.3 %	0.5 %	0.2 %
Men make better business executives than women do	1.9 %	12.5 %	34.4 %	50.9 %	--	0.3 %

The picture below (year unknown) shows a regional delegation focusing on agricultural development, where women are informed and trained. Their goal is clear: to adjust the participation of women, understand their training needs, support women farmers and monitor them, encourage and help with family gardens, promote their own products, encourage economic initiatives, raise awareness and solidarity, and develop the sector with modern equipment. However, for an effective, comprehensive and sustainable solution, these goals must extend beyond regional to national delegations, taking into account the mobility of women across regions and the need for a national approach. As the literature and my own findings demonstrate, this goal should not only include 'helping and supporting' women, but also restoring their agency in order to articulate, determine and co-determine their needs at all levels – at the individual micro-level, the meso-level, and the macro-level.

Figure 36: Development goals (year unknown) for women working in agriculture. Ministry of Agriculture, Water Resources and Fisheries (own picture).

Land ownership and economic autonomy

Land ownership is a major barrier to women's empowerment in Tunisia. Men and private investors own most of the land, sometimes living abroad (W4, Pos. 73). Only 5% of rural women are legal owners of farmland (Gueddana, 2021). Traditional inheritance practices further worsen this disparity, as many women give up their inheritance rights in exchange in favour of small, short-term compensations, thus maintaining their economic dependence on male family members (ATFD, 2014). The restricted ownership of land restricts women's access to financial resources such as bank loans, for which land is required as collateral (Baruah & Najjar, 2022). Moreover, the invisibility of their contributions in agricultural statistics results in a lack of policy recognition and union building. Legal reforms are vital to guarantee women's rightful access to land. Alongside these reforms, alternative financial instruments, such as microcredit initiatives tailored to rural women, must be introduced to provide pathways to economic independence (Abdelali-Martini & Dey de Pryck, 2015). Training centres such as the one in *Jemmal* have already recognized this and implemented it.

Turning to the scientific field, research should examine the effectiveness of international projects aimed at economic empowerment, such as those initiated by *SwissContact*. A comparative study analysing similar projects in regions outside the MENA region and in other countries, for example Morocco and Italy is needed to identify best practices for promoting gender-equal land ownership and access to financial resources. Field studies should be expanded to include a larger and more diverse sample of women across different regions within Tunisia to strengthen the findings and highlight region-specific disparities in land ownership.

9.1.2 International representation and Tunisia's agricultural trade

It is becoming increasingly evident that Tunisia's agricultural sector is being influenced by global economic pressures. The interest of international organisations is growing, which is due to the fact that European production and export-oriented production are becoming more and more integrated into the global commodity chain.

"*We have a company from the US, Switzerland, Belgium, Italy, Germany. So we work together with them and they truly support us. So it's help from within with donations, not loans/credits. And why do they help us? The help us because they find people working, trained, and they're signature for the trainings people do. So positive feedback for their training programs*"
(Expert1_TrainingCenter, Pos. 98).

Despite the valuable partnerships and investments in modern training (Expert1, Pos. 88/93), this focus has also contributed to structural inequalities, as international trade agreements have been observed to prioritise profitability over labour protection (Brandenburg, 2024). The expansion of agribusiness has led to an increased demand for cheap labour, which disproportionately affects women, who are employed under informal, seasonal, or temporary contracts with minimal legal protection. It is important to acknowledge the challenges faced by many women in this regard, and to recognise the need for stronger mechanisms to enforce labour rights (FAO, 2023). There is a growing recognition among international organisations, including the ILO and the FAO, of the importance of integrating gender-sensitive policies into agricultural labour frameworks and to work bottom-up. Research into the experiences of female refugees and migrant workers within Tunisia's agricultural labour force could provide valuable insights, particularly in view of the additional risks these groups face due to their legal and social status (Baruah & Najjar, 2022).

"*The women in agriculture even say 'when we die, who's going to continue our work in agriculture?'. There's a problem on its way. When there's no renewal of the laws and a wage improvement and regulated working conditions we won't find any workers anymore. So we'll have Africans working and this is a huge problem. Our children cross the Mediterranean sea illegally and we* (mumbling). *So they work in agriculture in for example Switzerland or Italy and in Tunisia they don't work because their wage is very low and they don't have respect for what they do … This would need proper research but maybe they* (African immigrants) *come and are ready to work anything,*

constructions, service, agriculture, anything. So the work our children don't want to do and run away from, they come and work it. It's like our children are working the things in Europe their children don't want to do. They do that because they get paid more (referring to place of origin wage)" (Expert2_Ministry, Pos. 46 & 49).

This study suggests that a fairer agricultural trade policy should include fair labour standards and make the contribution of women in the sector mor visible. Moreover, international partnerships could be used to provide targeted financial and technical support for female agricultural workers, thus ensuring that the export-oriented Tunisian agricultural model does not perpetuate gender-specific economic disparities.

In all these ideas and suggestions for suitable and sustainable measures and researches, one factor must not be ignored: climate change. The serious impact of climate change on Tunisia's agriculture could significantly affect the future of the agricultural sector. It is important to explore all possible solutions and options for improving the working conditions of women in the agricultural sector, always taking into account the effects of rising temperatures, declining precipitation and the management of water resources.

'The first link in the commodity chain'

Female agricultural workers in Tunisia constitute the first link in the local, regional, national, and international commodity chain, playing a vital role in ensuring food security and sustainability. However, as this thesis examines, their working conditions are characterised by numerous challenges at all levels, including long working hours, physically demanding labour, and possibility for inadequate compensation (Bouzidi et al., 2011), lack of contracts, social protection, or health coverage. This makes them vulnerable to economic and ecological shocks (Najjar & Baruah, 2024). The intersectionality of gender, socio-economic inequality, and climate change further compounds their challenges. Increasing migration patterns of men to Europe across the Mediterranean and climate-induced displacement will continue to drive rural women into agricultural labour, which requires adaptive strategies to ensure the resilience of rural women (Waha et al., 2017). Adaptation measures could include improved irrigation techniques, crop diversification, and investment in sustainable agricultural technologies (Piscitelli et al., 2021).

The findings of this thesis underscore the urgent need for an integrated approach that collectively addresses the various factors affecting women's working conditions in Tunisian agriculture. Future research could perhaps go beyond isolated disciplinary perspectives and instead take an interdisciplinary approach that combines agricultural sciences, gender studies, and labour economics. This thesis attempts to take a first step in this direction by identifying gaps in the literature and incorporating the voices of the women concerned. The replication of quantitative research in several regions and with a larger sample size would further validate the results presented here, particularly with regard to the age distribution and employment trends among female agricultural workers.

"*So that the paprika is ready in winter. So people can eat paprika in winter, so it's available. They sell it for 4 TND, 2 TND, they sell and sell and sell* (voice loud), *meaning and we're exhausted so it gets ready. Like that. …. The retailer wins, the farmer wins, the other and other and other wins, the seller wins, but we have nothing*" (W2, Pos. 135).

In terms of a dissertation, it might be of interest to consider research directions that include an in-depth study of international development projects like those led by *SwissContact*, with a comparison of their impact in different countries. Alternatively, research could focus on training programmes in vocational centres such as *Jemmal*, with an evaluation of their effectiveness in equipping women with the skills needed to transition into formal agricultural employment. Ultimately, it is my belief that a coordinated effort between academia, government, NGOs, local businesses, and most importantly the women themselves is necessary to implement policies that ensure equitable labour conditions and economic opportunities for women in Tunisian agriculture.

10. Conclusion

This thesis set out to explore the working conditions of women working in Tunisian fruit and vegetable agriculture, with a particular focus on the *Sahil* region. The main objective was to find out how the women themselves describe their work situation, how they experience and perceive it, what challenges they face and how they deal with them.

To achieve this goal and to approach the research question from different perspectives, a method triangulation was applied. This consisted of an extensive comparative review of peer-reviewed literature (state of research) on the one hand and field research with semi-structured qualitative interviews on the other. Interviews were conducted with the women concerned, as well as with other actors (farmers, experts) whose actions have an impact on the women's work situation.

The study is embedded in the discipline of feminist geography and focused on power relations and their interplay at the macro-, meso- and micro-level. Based on the concept of intersectionality, it analysed how these power relations, in combination with socio-economic structures and social norms (gender roles), affect the life and working experiences of these rural women.

The results demonstrate that the female agricultural workers who are the focus of this study are exposed to a multitude of factors that affect their daily lives in the fields and at home and make them vulnerable individuals who face a wide range of inequalities, despite their important contribution to the development of the agricultural sector. These factors range from inadequate protection at work, various types of harassment, lack of transportation, low wages, limited educational opportunities and a lack of political influence to unequal treatment based on their gender and a lack of coordinated strategies that could help improve their situation, exacerbated by the devastating effects of global climate change. And yet, even if the factors are the same in the research area, the *Sahil* region, women experience them differently, both physically and emotionally, and seek ways to develop

agency to deal with them – for example, by developing soft skills – as the excerpts from the interviews show.

These insights contribute to the broader theoretical discourse on structural inequalities and power relations, which are embedded in local, regional, national and global networks. It becomes clear that neither a categorisation into 'perpetrators' and 'victims' nor a one-dimensional analytical approach is sufficient to understand the dynamics of these networks and the actions of the actors involved. In this respect, the study reveals a gap in the existing research literature. Most authors who have worked on the topic focus on individual areas such as socio-economic conditions or gender inequalities. What is often missing is a look at the interplay and interconnectedness between these areas from an intersectional perspective with fluid identities. Furthermore, the voices of those affected, above all the women working in Tunisian agriculture, are rarely heard.

The findings of this thesis call for an interdisciplinary and trans-professional approach – both in practice and in scientific research – that integrates agriculture, climate science, labour rights, and gender studies in the local, national and international context and on the micro-, meso-, and macro level. Future research should build on these findings and broaden the perspective, for example by expanding the regional focus and the size of the sample, or by taking further factors such as transnational exchange, economic interdependence and international cooperation into account.

It is hoped that the insights presented in this thesis will serve as a foundation for ongoing discussions and innovations in the Tunisian agricultural sector, acknowledging the important role of the female worker, and ultimately contributing to a better understanding of the dynamics and forces at work in this sector. 'Empowerment means taking responsibility'!

Literature[22]

Abdelali-Martini, M. (2011): Empowering women in the rural labour force with a focus on agricultural employment in the Middle East and North Africa (MENA). Expert paper.

Abdelali-Martini, M., & Dey de Pryck, J. (2015): Does the feminisation of agricultural labour empower women? Insights from female labour contractors and workers in Northwest Syria. Journal of International Development, Vol. 27(7), p. 898-916.

Adibelli, D., Kirca, N., & Özkan, İ. (2022): The problems of women working in greenhouse agriculture in rural area in Turkey: A phenomenological study from health and social perspective. Health & Social Care in the Community, Vol. 30(1), p. 203-211.

Agridata.tn (2024): Ministère de l'Agriculture des Ressources Hydrauliques et de la Peche. URL: https://catalog.agridata.tn/fr/group/ (access: 09.10.2024).

Ahonen, E. Q., Porthé, V., Vázquez, M. L., García, A. M., López-Jacob, M. J., Ruiz-Frutos, C., ... & ITSAL Project. (2009): A qualitative study about immigrant workers' perceptions of their working conditions in Spain. Journal of Epidemiology & Community Health, Vol. 63(11), p. 936-942.

Al-Attar, H. (2023): Women's agricultural labour and policies to perpetuate fragility: What is the way to rescue and restore dignity? FTDES.

Al-Manaei, M. (2016): A study on women working in the agricultural sector in the state of Sidi Bouzid between rights and violations. Youth Academy for Monitoring Human Rights Violations, Tunisian Association for Cultural Movement and Tunisian League for the Defence of Human Rights.

Alhindi, W. A., Talha, M., & Sulong, G. B. (2012): The role of modern technology in Arab spring. Archives des sciences, Vol. 65(8), p. 101-112.

Ahmini la nouvelle connexion sociale (2017): Ahmini Platform. URL: https://www.youtube.com/watch?v=laMFBWzlMTI (access: 30.12.24).

AVFA (2024): Ministère de l'Agriculture des Ressources Hydrauliques et de la Peche. URL: https://avfa.agrinet.tn/ (access: 09.10.2024).

Ayeb, H., & Bush, R. (2014): Small farmer uprisings and rural neglect in Egypt and Tunisia. Middle East Report, Vol. 272(44).

Bajec, A. (2020): Tunisia: COVID-19 increases vulnerability of rural women. Arab Reform Initiative.

Baruah, B., & Najjar, D. (2022): Gender Equality, Climate Change and Agriculture in the MENA region: Priorities and Possibilities. ICARDA.

[22] Literature originally published in Arabic is highlighted in *italics*.

Bensaad, A. (2019): Improving the recruitment and retention of female workers in the agricultural sector in Tunisia by improving transportation conditions in vehicles. Tunisian General Labour Union, General Agriculture Friday.

Berkes, F., & Ross, H. (2013): Community resilience: toward an integrated approach. Society & natural resources, Vol. 26(1), p. 5-20.

BIAT (2020): Témoinage entrepreneur BIAT Maher Khelifi Ahmini. URL: https://www.youtube.com/watch?v=AQSxC2it5JI (access: 30.12.24).

Boeckler, M. & Berndt, C. (2014): B/ordering the Mediterranean: free trade, fresh fruits and fluid fixity. In: Gertel, J., & Sippel, S. R. (2014): Seasonal workers in Mediterranean agriculture, The social costs of eating fresh. Earthscan from Routledge, London, p. 23-33.

Borghesi, S., & Ticci, E. (2019): Climate change in the MENA region: environmental risks, socioeconomic effects and policy challenges for the future. MED., p. 289-292.

Bouzidi, Z., El Nour, S., & Moumen, W. (2011): Le travail des femmes dans le secteur agricole: Entre précarité et empowerment—Cas de trois régions en Egypte, au Maroc et en Tunisie. Gender and Work in the MENA Region Working Paper, Cairo: Population Council, Vol. 22.

Brandenburg J. (2024): Tunesische Frauen in der Landwirtschaft: Kampf um Schutz und Rechte. Dis:orient. URL: https://disorient.de/tunesische-frauen-landwirtschaft-ausbeutung (access: 30.12.2024).

Cavatorta, F., & Clark, J. A. (2022): Political and social mobilization in the Middle East and North Africa after the 2011 uprisings. Globalizations, p. 1-14.

CIHEAM (2020): Video Ahmini. URL: https://www.youtube.com/watch?v=ToWgN6TKEOI (access: 30.12.24).

Coe, N. M., Kelly, P. F. & Yeung, H. W. (2007): Gendered Economic Geographies. Does gender shape economic lives? In: Coe, N. M., Kelly, P. F. & Yeung, H. W. (2007): Economic Geography. A Contemporary Introduction. Malden and Oxford, Blackwell, p. 348-376.

Development aid (2024): Agence De Vulgarisation Et De La Formation Agricoles: AVFA / Agricultural Extension and Training Agency. URL: https://www.developmentaid.org/organizations/view/227077/agence-de-vulgarisation-et-de-la-formation-agricoles-avfa-agricultural-extension-and-training-agency (access: 09.10.2024).

Di Gennaro, F., Lattanzio, R., Falanga, C., Negri, S., Papagni, R., Novara, R., ... & Saracino, A. (2021): Low-wage agricultural migrant workers in Apulian ghettos, Italy: general health conditions assessment and HIV screening. Tropical Medicine and Infectious Disease, Vol. 6(4), 184.

Facebook (2023; 1): Hear what one of Tunisia's free women has to say about Tunisia, URL: https://www.facebook.com/watch/?v=1325298104820326 (access: 26.05.2024).

Facebook (2023; 2): She's eighty years old and a farm labourer... I don't have a sheep or a dog, but I've never had an old woman in my life, URL: https://www.facebook.com/watch/?v=879660780614104 (access: 26.05.2024).

FAO (2023): Country profiles: Tunisia. Food and Agriculture Organization of the United States. URL: https://www.fao.org/countryprofiles/index/en/?iso3=tun (access: 29.10.2023).

FAO (2024): Fact sheet: – Women, agriculture, and rural development, Role of women in agriculture. Food and Agriculture Organization of the United States. URL: https://www.fao.org/4/v9321e/v9321e01.htm (access: 14.12.2024).

(FTDES) Forum Tunisien pour les Droits Economiques et Sociaux (2024; 1): #Let's Not Forget About Them on occupational health and safety for women labourers in the agricultural sector so that the risks threatening female agricultural labourers are not limited to accidents. URL: https://www.facebook.com/watch/?v=942373774023734 (access: 25.05.2024).

(FTDES) Forum Tunisien pour les Droits Economiques et Sociaux (2024; 2): In minutes, the Tunisian Forum for Economic and Social Rights (FTDES) presents its vision of the most important measures that would guarantee a minimum level of rights. URL: https://www.facebook.com/watch/?v=462105462921287 (access: 25.05.2024).

Gafrej, R. (2016): Avec le changement climatique, quel avenir de l'agriculture en Tunisie. CIHEAM Watch Lett, Vol. 37.

Gaillard, C., Martin, S., Bosc, P. M., El-Ati, J., Dop, M. C., Trabelsi, T., ... & Dury, S. (2018): Explorer les liens entre agriculture et sécurité alimentaire: une enquête auprès des femmes du gouvernorat de Sidi-Bouzid en Tunisie. EDP Science.

Galal, Saifaddin (2023): agriculture in Tunisie – statistics and facts, statista. URL: https://www.statista.com/topics/8989/agriculture-in-tunisia/#topicOverview (09.10.2024).

Gana, A. (2008): Restructurations agricoles en Tunisie: adaptations et différenciation. Autre part, Vol. 46(2), p. 81-96.

Gastineau, B. (2012): Transition de la fécondité, développement et droits des femmes en Tunisie. Les Cahiers d'EMAM, Études sur le Monde Arabe et la Méditerranée, Vol. 21, p. 75-94.

Gertel, J. & Sippel, S.R. (2014): Seasonality and temporality in intensive agriculture. In: Gertel, J., & Sippel, S. R. (2014): Seasonal workers in Mediterranean agriculture, The social costs of eating fresh. Earthscan from Routledge, London, p. 3-22.

Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013): Reframing the economy, reframing ourselves. In: Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013): Take back the economy An ethical guide for transforming our communities, University of Minnesota Press, p. 1-15.

Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013): Take back the economy: Why not?. In: Gibson-Graham, J. K., Cameron, J., & Healy, S. (2013): Take back the economy An ethical guide for transforming our communities, University of Minnesota Press, p. xiii-xxiii.

Gregson, N., Kothari, U., Cream, J., Dwyer, C., Holloway, S., Maddrell, A. & Rose, G. (2014): Gender in feminist geography. In: Women and Geography Study Group (2014): Feminist geographies, Explorations in diversity and difference. Routledge, p. 49-85.

Gueddana, N. (2021): Etude sur la femme rurale tunisienne. FIKD.

Helfferich, C. (2019): Die Qualität qualitativer Daten. Vol. 4, Wiesbaden: VS Verlag für Sozialwissenschaften.

Hibou, B., Meddeb, H., & Hamdi, M. (2011): Tunisia after 14 January and Its Social and Political Economy, The Issues at Stake in a Reconfiguration of European Policy. Copenhagen, EuroMed Rights.

Holmes, S. M., & Ramirez-Lopez, J. (2023): Segregation on the Farm; Ethnic hierarchies at work. In: Holmes, S. M., & Ramirez-Lopez, J. (2023): Fresh Fruit, Broken Bodies: Migrant Farmworkers in the United States. Updated with a New Preface and Epilogue, University of California Press, Vol. 27, p. 45-87.

Hyndman, J. (2001): Towards a feminist geopolitics. Canadian Geographer/Le Géographe Canadien, Vol. 45(2), p. 210-222.

ICARDA Communication Team (2023): Research priorities to strengthen women's roles in climate-resilient agriculture in the Middle East and North Africa. ICARDA Science for resilient livelihoods in dry areas. URL: https://www.icarda.org/media/news/research-priorities-empower-women-agriculture (access: 29.10.2023).

Iglesias, A., Mougou, R., Moneo, M., & Quiroga, S. (2011): Towards adaptation of agriculture to climate change in the Mediterranean. Regional Environmental Change, Vol. 11, p. 159-166.

ILO (1969): C129 - Labour Inspection (Agriculture) Convention, 1969 (No. 129). International Labour Organisation, promoting jobs, protecting people. URL: https://normlex.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C129 (access: 09.12.2024).

ILO (2015): Breaking the cycle of poverty in Tunisia. International Labour Organization. URL: https://www.ilo.org/global/about-the-ilo/multimedia/features/tunisia/lang--en/index.htm (access: 21.01.2024).

Ins (2022): Tunisie en chiffres, Institute national de la statistiques.

Jehouani, R., & Meryem, N. (2023): Female Farm Workers in Morocco: Between Laborious Working Conditions and Environmental Challenges. In: E3S Web of Conferences (2023): EDP Science, Vol. 412, 01037.

Karshenas, M., & Moghadam, V. M. (2001): Female labour force participation and economic adjustment in the MENA region. In: Elsevier Science B. V. (2011): The economics of women and work in the Middle East and North Africa. Emerald Group Publishing Limited, Vol. 4, p. 51-74.

Kuckartz, U., & Rädiker, S. (2023): Qualitative content analysis: Methods, practice and software. Sage.

Laiadhi, A. (2021): Geschlechtergerechter Konstitutionalismus in Tunesien.

Latreille, M. (2006): Rmāyniyya: féminisation de l'agriculture et condition féminine dans le Nord-Ouest tunisien. Université de Montréal.

Law 32 (2002): on social security schemes for certain categories of workers in the agricultural and non-agricultural sectors. Official printing office of the republic of Tunisia, the latest official gazette of laws, decreed and ministerial orders.

Law 30 (1960): social security in agriculture. Official printing office of the republic of Tunisia, the latest official gazette of laws, decreed and ministerial orders.

Law 768 (2022): salary. Official printing office of the republic of Tunisia, the latest official gazette of laws, decreed and ministerial orders.

Ltifi, M. (2014): Roles of social media in the retail sector in Tunisia: the case of Facebook. International Strategic Management Review, Vol. 2(2), p. 79-88.

Malin, C. (2010): Middle East & North Africa Facebook Demographics. Spot On Public Relations and Spot on Communications LLC.

Mattissek, A., Pfaffenbach, C., & Reuber, P. (2013): Methoden der empirischen Humangeographie. Westermann.

Marzouki, Y., Skandrani-Marzouki, I., Béjaoui, M., Hammoudi, H., & Bellaj, T. (2012): The contribution of Facebook to the 2011 Tunisian revolution: A cyberpsychological insight, Cyberpsychology, Behavior, and Social Networking. Vol. 15(5), p. 237-244.

Ministry of Agriculture, Water Resources and Fisheries (2022): Appendix No. 7; Gender-specific cards. In: Ministry of Agriculture, Water Resources and Fisheries (2022): The annual project to perform the mission of agriculture, water resources and fishing for the year 2023, p 229-234.

Ministry of Agriculture, Water Resources and Fisheries (2024): business, education, environment, household and living conditions, population, rainfall, temperature. Institute national de la statistique. URL: https://www.ins.tn/en/statistiques (access: 05.02.2025).

Ministry of agriculture, Water Resources and Fisheries *(2014): statistics of women working in agriculture in Tunisia, (paper copy).*

Najjar, D., & Baruah, B. (2023): "Even the goats feel the heat:" gender, livestock rearing, rangeland cultivation, and climate change adaptation in Tunisia. Climate and Development, Vol. 16(6), p. 526-539.

Nieto, J. M. (2014): Labour and gender relations in Moroccan strawberry culture. In: Gertel, J., & Sippel, S. R. (2014): Seasonal workers in Mediterranean agriculture, The social costs of eating fresh. Earthscan from Routledge, London, p. 199-210.

Oberhauser A. M. (2008): Chapter 5: Feminism and economic geography: gendering work and working gender. In: Sheppard, E. (2008): A companion to economic geography. John Wiley & Sons, p. 60-76.

Official printing office of the republic of Tunisia (2024): Employment code.

Official printing office of the republic of Tunisia (2019): Law Nr. 51; transport of agricultural workers. the latest official gazette of laws, decreed and ministerial orders. URL: http://www.iort.gov.tn/WD120AWP/WD120Awp.exe/CTX_484-12-XMbdUIcpaQ/RechercheTexte/SYNC_2003556006 (access: 15.11.2024).

Official printing office of the republic of Tunisia (2017): Law Nr. 58; on the elimination of violence against women. the latest official gazette of laws, decreed and ministerial orders. URL:

http://www.iort.gov.tn/WD120AWP/WD120Awp.exe/CTX_484-12-XMbdUIcpaQ/RechercheTexte/SYNC_2003579443 (access: 15.11.2024).

Official printing office of the republic of Tunisia (2016): Law Nr. 61; on preventing and combating trafficking in persons. the latest official gazette of laws, decreed and ministerial orders. URL: http://www.iort.gov.tn/WD120AWP/WD120Awp.exe/CTX_484-12-XMbdUIcpaQ/RechercheTexte/SYNC_2003836474 (access: 15.11.2024).

OITE (2023): Briser le cercle de la pauvreté en Tunisie. Organisation internationale du Travail. URL: https://www.ilo.org/global/about-the-ilo/multimedia/features/tunisia/lang--fr/index.htm (access: 29.10.2023).

Park, C. M. Y., White, B., & Julia. (2015): We are not all the same: taking gender seriously in food sovereignty discourse. Third World Quarterly, Vol. 36(3), p. 584-599.

Perez, M. R. (1990): Development of Mediterranean agriculture: an ecological approach. Landscape and Urban Planning, Vol. 18(3-4), p. 211-219.

Phillips McDougall (2021): Product Directory, Crop Protection & Biotechnology Consultants. Agri Support, IHS Markit.

Poulis, S. S. (2015): The Post-Arab Spring Geopolitical Instability And Its Effects On Middle East And North Africa. Fort Hays State University.

Rädiker, S., & Kuckartz, U. (2019): Analyse qualitativer Daten mit MAXQDA. Wiesbaden, Germany: Springer Fachmedien Wiesbaden.

Ragetlie, R., Najjar, D., & Oueslati, D. (2022): "Dear Brother Farmer": Gender-Responsive Digital Extension in Tunisia during the COVID-19 Pandemic. Sustainability, Vol. 14(7), 4162.

Rejeb, H. (2011): Les enjeux de l'agriculture urbaine et périurbaine en Tunisie. Lettres de Veilles CIHEAM, Montpellier, Vol. 18, p. 5-7.

Rowlands J. (1997): Questioning Empowerment: Working with Women in Honduras, Oxfam: Oxford.

Salem, R., & Yount, K. M. (2019): Structural accommodations of patriarchy: Women and workplace gender segregation in Qatar. Gender, Work & Organization, Vol. 26(4), p. 501-519.

Sharp, J. (2011). Subaltern geopolitics: introduction. Geoforum, Vol. 42(3), p. 271-273.

Sippel, S. R. (2014): Disrupted livelihoods? Intensive agriculture and labor markets in the Moroccon Souss. In: Gertel, J., & Sippel, S. R. (2014): Seasonal workers in Mediterranean agriculture, The social costs of eating fresh. Earthscan from Routledge, London, p. 186-198.

Strauss, A., & Corbin, J. (1998): Basics of qualitative research techniques.

SwissContact (2024): URL: https://www.swisscontact.org/de/laender/tunesien (access: 31.12.2024).

Tunisia National WASH Accounts (2017): Regions and governorates of Tunisia. World Bank, URL: https://www.researchgate.net/figure/Regions-and-governorates-of-Tunisia-4_fig1_328537798 (access: 14.01.2025).

Tunisie Telecom (2019): Ahmini. URL: https://www.youtube.com/watch?v=uuFgOvgu7PQ (access: 30.12.24).

United Nations General Assembly (1948): Universal Human Rights.

Waha, K., Krummenauer, L., Adams, S., Aich, V., Baarsch, F., Coumou, D., ... & Schleussner, C. F. (2017): Climate change impacts in the Middle East and Northern Africa (MENA) region and their implications for vulnerable population groups. Regional Environmental Change, Vol. 17, p. 1623-1638.

World Economic Forum (2024): Global Gender Gap, Insight Report. P. 12.

WVS (2017-2022): World Value Survey Wave 7, Results in % by country weighted by w_weight.

Valentine, G. (2007): Theorizing and researching intersectionality: A challenge for feminist geography. The professional geographer, Vol. 59(1), p. 10-21.

Voigt, D. (2023): Systembedingter Wasserstress in Tunesien. Welternährung. URL: https://www.welthungerhilfe.de/welternaehrung/rubriken/klima-ressourcen/systembedingter-wasserstress-in-tunesien (access: 05.10.2024).

Vorbrugg, A. B., Klosterkamp, S., & Thompson, V. E. (2021): Feldforschung als soziale Praxis, Ansätze für ein verantwortungsvolles und feministisch inspiriertes Forschen.

List of Illustration

Appendix

Interview questionnaire

Questionnaire working women -- Master Thesis	مقابلة مع امرأة عاملة في مجال الفلاحة – رسالة ماجستير
Start: • Aim: to find out about your working conditions in agriculture • Anonymous and you can stop at any time • Voice only, no video • Thank you gift	البداية: Elbidaya • الهدف: نتعرّف على ظروف خدمتك في الفلاحة • Elhadaf : net3arraf 3la dhourouf 5edmtek fel fla7a • المقابلة تنجم توفاها في أي وقت وهويتك (اسمك ولقبك) ما يظهروش • Elmou9abla tnajam toufaha fi ay wa9t w hawitek (esmek w la9abek) mayedhehrouch • التسجيل صوت كاهاو، من غير فيديو • El tasjil sout kahaw ; min ghir video • هدية شكر • Hdiyat chokr
Personal data • What part of Tunisia are you from? (could be uncomfortable, so ask at the end) • What is your level of education?	معطيات شخصية Mo3tayat cha5ssiya • منين أنت من تونس؟ • Enti mnin min tounes ? • شنوة مستواك متاع القراية؟ • Chnouwa mostawak mta3 le9raya ?

• Are you married?
  ○ If so, what does your husband do?
	• معرسة؟
	  ○ إذا نعم شنوة يخدم راجلك؟
	  ○ M3arssa ? idha na3am, rajlek chnouwa ye5dem?

Motivation	الدوافع Dawafa3
• Why do you work in agriculture	• علاش تخدم في الفلاحة؟ • 3lach te5dem fel fla7a?
○ How old were you when you first started working in agriculture?	○ قداش كان عمرك وقتلي أول مرة خدمت في الفلاحة؟ ○ 9addach ken 3orek wa9teli awal marra 5demt fel fla7a?
○ How long have you been worked in agriculture?	○ قداش عندك من عام وأنت تخدم في الفلاحة؟ ○ 9adech 3andek min 3am w enti te5dem fel fla7a?
○ In which fruit and vegetable sector have you worked in before?	○ في أي مجال متاع خضرة وغلة خدمت قبل؟ ○ Fi ay naw3a mta3 khodhra w ghala 5demt 9bal?
○ Where in Tunisia have you worked before?	○ فين خدمت قبل في تونس؟ ○ Fin 5dimt 9bal fi Tunis? ○
Work (in general)	الخدمة (بصفة عامة) El 5edma (bissifa 3amma)
• What is a typical working day like?	• تنجمشي توصفلي نهار خدمة عادي؟ • Tnajamchi toussifli nhar 5edma 3adi?

○ Are there any differences during the year? (Ramadan, winter – summer, rain – drought)	○ شنوة الفرق حسب الفترة؟ (رمضان، شتاء – صيف، مطر – زمّة)
	○ Chnouwa elfar9 7asb el fatra? (Romdan, chté, sif, mtar, zamma)
○ Are there any differences in your work depending on the cultivation method and location?	○ فما فرق في الخدمة وقتلي تتبدل طريقة الفلاحة والبلاصة ؟
▪ If so, how?	○ Famma far9 fel 5edma wa9teli tetbadal tari9et el fla7a wel blassa ?
	▪ إذا نعم، كيفاش؟
	▪ Idha na3am, kifech?
○ Are there any differences in your work between now and when you first started working in agriculture?	○ فما فرق في الخدمة بين توا ووقتلي دوب ما بديت تخدم في الفلاحة ؟
▪ If so, how?	○ Famma far9 bin tawa w awal ma bdit te5dem fel fla7a ?
	▪ إذا نعم، كيفاش؟
	▪ Idha na3am, kifech?
○ What do you do, when there is no work?	○ شنوا تعمل وقتلي ما فماش خدمة؟
	○ Chnawa ta3mal wa9teli mafamach 5edma?
○ What do you like about your work?	○ شنوا الي يعجبك في خدمتك ؟
	○ Chnouwa ili ye3jbek / l ba7i fi 5edmtek ?
Working conditions	ظروف الخدمة Dhourouf el 5edma
• Tell me about your current working conditions.	• أحكيلي على ظروف خدمتك في الفلاحة.
	• A7kili ala dhourouf /les conditions 5edemtek fel fla7a

Working conditions (security)	ظروف الخدمة (الحماية) Dhourouf el 5edma (al7imaya)
• Do you have an employment contract?	• تخدم بكونتراتو؟ • Ti5dm bil contrat?
○ If so, how long is it for?	○ إذا نعم قداش المدة متاعو؟ ○ Idha na3am, 9adach el modda mta3ou?
○ Does it state your salary and holiday entitlement?	○ مكتوب فيه قداش تخلص والكونجيات متاعك؟ ○ Maktoub fif 9adech to5lis wel kounjiyet nta3ek?
• How does the recruitment process work?	• كيفاش اختارك يخدمك فيك؟ • Kifech 5tarek (wsollik) ili i5adam fik ?
• Do you get any sort of training?	• عملتشي أي تكوين؟ • 3maltchi ay takwine ?
• How do you get to work each day?	• كيفاش توصل كل يوم للبلاصة الي باش تخدم فيها ؟ • Kifech toussil kol youm lil blassa ili bech te5dem fiha ?
• Are you paid daily/weekly/monthly?	• تخلص بالنهار والا بالجمعة والا بالشهر؟ • To5loss bel nhar wala bel jem3a wala bechhar ?
○ How much are you paid?	○ قداش يخلصوك؟ ○ 9adech to5loss ?
○ How important is your income for your family? (family income distribution)	○ الفلوس الي تاخوها قداش مهمة بالنسبة لعايلتك؟ ○ 9addach mouhimma el flouss ili ta5ouha bennesba l3ayeltik?
• Do you have any kind of social security?	• عندكشي أي نوع متاع ضمان اجتماعي؟ • 3andekchi ay naw3 mta3 dhaman ijtima3i?
○ If so, what does it cover?	○ إذا نعم، شنوة يغطي الضمان الاجتماعي هذا؟ ○ Idha na3am ; chnouwa yghatti eldhaman el ijtima3i hadha ?

○ Have you heard of the "Ahmini" application? ▪ If so, (how) do you use it?	○ سمعتشي بتطبيقة أحميني؟ ○ Sma3tchi btatbi9at "Ahmini"? ○ إذا نعم، تستعملها؟ كيفاش؟ ○ Idha na3am, testa3malha?
• What challenges do you face at work?	• شنوة المشاكل الي تواجهها في الخدمة؟ • Chnouwa ess3ib fel 5edma?
○ Do you have to work in the heat?	○ لا زمك تخدم في السخانة؟ ○ Lazmek te5dem fel s5ana?
○ How does your work affect you physically?	○ كيفاش الخدمة تأثر على بدنك؟ ○ Kifech el 5edma t2atfar 3la badnek?
○ Do you get any kind of protection (mask, gloves, glasses, sun protection, etc.)	○ يعطيوكشي أي نوع متاع حماية (كمامة، قفازات، مرايات، كريمة حماية مالشمس...؟ ○ Ya3tiyoukchi ay nawa3 mta3 7imaya (kammama, gwandouwat, mrayat, krimat 7imaya mel chams?
○ How often do you get a break during a working day?	○ قداش عندك من استراحة؟ ○ Kadech 3andek min ra7a (pause) fi n7ar el 5idma?
○ What is the working atmosphere like among the workers? ▪ What is your position? ▪ Do you have any special responsibilities?	○ كيفاش الجو بين الخدامة؟ ○ Kifech el jaw bin el 5adama? ▪ شنوة موقفك؟ ▪ Chnouwa maw9fek? ▪ عندكشي أي مسؤوليات خاصة؟ ▪ 3andekchi ay mas2ouliyat 5assa?
• Do you have to work around chemicals?	• لازمك تستعمل مواد كيميائية؟ • Lazmek testa3mal (mawad kimya2iya(/ dweh fel 5edma ?

○ If so, what kind of chemicals?	○ اذا نعم، شنية هالمواد الكيميائية؟ ○ Idha na3am, chniya hal (mawad) / dweh?
• Have you ever had an accident at work?	• صارلك أكسيدون في الخدمة؟ • Sarlek aksidon fel 5ema?
○ If so, what happened? Did you go to hospital?	○ اذا نعم، شنوة الي صار؟ هزوك للصبيطار؟ ○ Idha na3am, chnouwa ili sar? Hazouk lel sbitar?
Working conditions (gender differences)	ظروف الخدمة (الفرق بين الجنسين) Dhourouf el5edma (el far9 bayn eljenssayn)
• Are there men doing the same work as you?	• فما رجال يعملوا نفس الخدمة متاعك؟ • Fama rjal ya3mlou nafs el 53dma mta3ek?
○ If so, are they paid the same?	○ اذا نعم، تخلصوا كيف كيف؟ ○ Idha na3am, to5lssou kif kif?
○ If not, what kind of work do they do and why can't you do it?	○ اذا لا، شنية نوعية الخدمة الي يخدموها وعلاش انت ما تنجمش تخدمها؟ ○ Idha lè, chniya naw3iyet el5edma ili ye5dmouha w3lach enti matnajamch ta3malha?
• Are there sanitary facilities in your workplace?	• فما بيت راحة فين تخدم؟ • Fama bit ra7a (toilette) fin te5dem?
○ If not, how do you go to the toilet?	○ اذا لا، كيفاش تعمل باش تقضي حاجتك؟ ○ Idha lé, kif ta3mal bech ta9dhi 7ajtek / t3aml toilette?
• Have you worked during your period?	• تخدم في أيام العادة الشهرية؟ • Te5dem fi ayam el3ada el chahriya?
• Do you have children under the age of 6?	• عندك صغار أقل من 6 سنين؟ • 3andek sghar a9al min sitta snin? ○ اذا نعم، شكون يتلهى بيهم كيف انت تخدم؟

○ If so, who looks after them when you work? • Have you worked during your pregnancy? ○ If so, during which months? • Have you experienced sexual harassment at work? ○ If so, how did you deal with it? • Does your work, or the fact that you work, bring you any kind of honour, either in the family or in society? • What part of Tunisia are you from? • Do you have anything to add?	○ Idha na3am,chkoun yetelhé bihom kif enti fel 5edma? • خدمتشي في مدة الحبالة؟ • 5demt w enti 7ebla? ○ اذا نعم، شكون يتلهى بيهم كيف انت تخدم؟ ○ Idha na3am, fi ay och'hra? • صارلك مرة تحرش جنسي في الخدمة؟ • Sarlek mara ta7aroch jenssi? ○ اذا نعم، كيفاش تصرفت؟ ○ Idha na3a, kifech tsarraft? • انك تخدم والا عندك خدمة الحاجة هذي تحسسك انو عندك قيمة في العائلة والا في المجتمع؟ • Innek te5dem w ailla 3andek 5edma haja hedhi t7assek ennou 3andek 9ima fil 3ayla wala fil mojtama3? • منين أنت من تونس؟ • Enti mnin min tounes ? • عندك أي حاجة تحب تزيدها؟ • 3andek ay 7aja t7eb tzid'ha?

Interview Overview

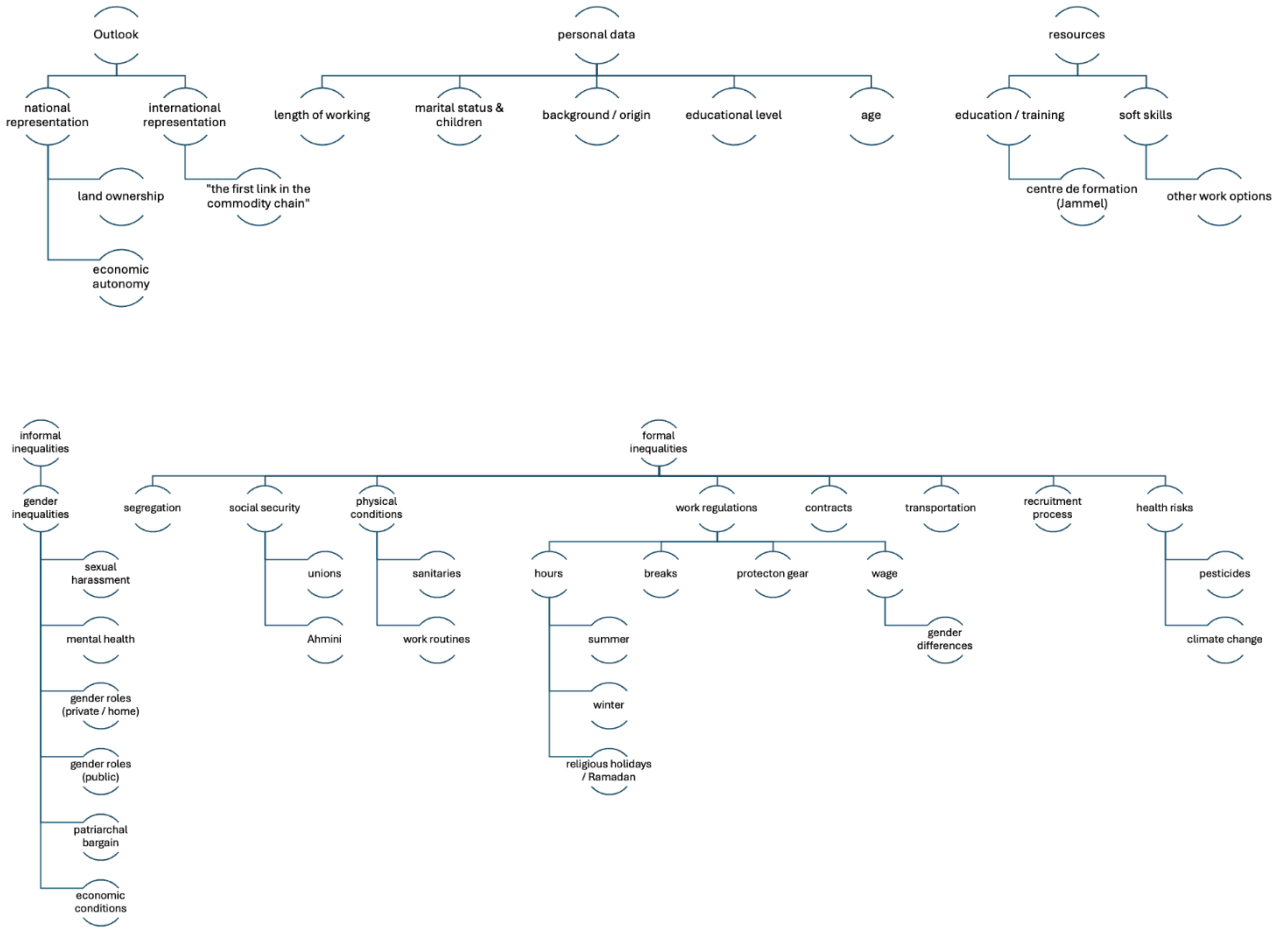
Who	Where	When	Comment
1. Women 1 (37 y)	Monastir	1) Field work	Free day 37min
2. Women 2 (daughter 25 y)	Monastir	1) Field work	After work, near home 39min
3. Women 3 (mother, ü50 y)	Monastir	1) Field work	After work, near home 31min
4. Women 4 (ü80 y)	Monastir	1) Field work	Short interview -> during lunch break 11min
5. Women 5/6/7 (ü30y / ü40y / ü50y)	Monastir	1) Field work	Short interview -> all together during lunch break 18min
6. Employer 1	Monastir	1) Field work	After work 22min
7. Employer 2	Monastir	1) Field work	Free day 47min
			→ **ca. 3.5 h**
Expert 4 Agribusiness	Tunis	2) Field work	No answer
8. Women 8, 9 (ü40y/ü50y)	Monastir	2) Field work	After work -> drive home 25min
			→ **ca. 0.5 h**
9. Women 10 (self-employed, ü50)	Cherahil	3) Field work	During lunch break 60min
10. Women 11, 12, 13, 14 (ü30 / 2x ü40y / ü50)	Kroussia	3) Field work	At workplace during lunch break 36min
11. Women 15 (ü70y)	Monastir	3) Field work	After work -> drive home 30min
12. Women 16 (ü70y)	Monastir	3) Field work	After work -> drive home 30min
Expert 5 CEO «Ahmini"	Tunis	3) Field work	Moved to Cathar -> company is subject to legal proceedings? no answer

13. Expert 1 (director)	*Jemmal* → Centre de formation	3) Field work	At training center (= centre de formation) 45min
14. Expert 2 (director of rural women department)	Monastir → ministry of agriculture	3) Field work	At ministry of agriculture 50min
Expert 6 Country Director of *SwissContact* in Tunisia	Tunis	3) Field work	No answer
Student 1 (agrobusiness)	Sousse	3) Field work	No answer
			→ ca. 4.5 h
15. Interviews online (Women 17, 18/19/20, 21/22/23/24/25/26, Employer 3)			

Interview transcripts

For data protection reasons, the interview transcripts cannot be published and were given separately to the supervisors.

Interview coding tree



Declaration of authorship for Academic Work

I hereby expressly declare that the thesis submitted by me is an original work written by myself in my own words without any unauthorized assistance. If the thesis is by more than one author, I hereby confirm that the parts of the paper written by authors other than myself are correctly and clearly identified as such and are explicitly attributed to the respective author(s).
I additionally confirm that this thesis – as a whole or in parts – has not previously been submitted to the University of Zurich or to any other university or educational institution for the purpose of obtaining a degree or academic credit, nor will it be submitted again in the future for the purpose of obtaining a degree or academic credit.

Use of Sources
I expressly declare that all references to external sources (including tables, graphics, etc.) contained in the above mentioned thesis have been identified as such. I confirm that without exception and to the best of my knowledge, I have properly indicated the authorship of borrowed verbatim statements (quotations) and statements by other authors reproduced in my own words (paraphrases). If the use of ChatGPT or other AI-based tools was explicitly allowed, I made everything transparent - along with an indication of the details of the use (prompts, etc.).

Sanctions
I acknowledge that work which violates the principles of the declaration of authorship – particularly work containing quotations or paraphrases without indication of origin/source – is considered plagiarism and may result in corresponding legal and disciplinary consequences (pursuant to §§ 10ff of the Disciplinary Regulations of the University of Zurich, order 415.33).

With my signature, I confirm the accuracy and veracity of the information provided in this declaration.

Author: Donia Noura Ben Khalifa
Student ID #: 16-731-176
Location and Date: Zürich, 28.02.2025

Signature: