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How do the people that feed Europe feed themselves? Exploring the (in)formal food practices of Almería's migrant and seasonal food workers

María Alonso Martínez[1] · Anke Brons[2] · Sigrid C. O. Wertheim-Heck[2]

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Abstract

The EU's Farm to Fork strategy (European Commission European Commission. 2020. Farm to Fork strategy. https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en. Accessed 31 August 2023.) highlights the need for a resilient food system capable of providing affordable food to citizens in all circumstances. Behind the provision of affordable food for EU citizens there is the effort of many migrant and seasonal food workers (MSFWs). In Almería, Spain, the area with the biggest concentration of greenhouses in the world, MSFWs face vulnerability in the form of physical and institutional invisibility despite performing the essential task of providing affordable food for the EU's food system. This paper aims to move on from structuralist concerns and place MSFWs' lived experiences at the center, including the (in)formal nature of their food practices, to understand how the people that feed Europe feed themselves. A combination of social practice theories and diverse economies is used to explore MFSWs' daily food routines. These theories are used as lenses that inform the data collection process, performed through semi-structured interviews, photography, and observations. The findings of the study reflect a dynamic portfolio of (in)formal practices that evolve based on the length of stay in the county. These practices demonstrate how the EU food system resilience relies on the diverse economies of migrant settlements. We conclude that informality is a reality in the EU food system, and that shedding light on previously hidden food practices and their structures can help us envision food security interventions that are inclusive for all actors involved.

Keywords Practice theories · Diverse economies · Informality · Food systems · Food security · Inclusivity

Abbreviations

MSFWs	Migrant and seasonal food workers
ST	Short-term [migrants]
LT	Long-term [migrants]
NGO	Non-governmental organization
EU	European Union

✉ Sigrid C. O. Wertheim-Heck
sigrid.wertheim-heck@wur.nl

María Alonso Martínez
maria.alonso-martinez@iclei.org

Anke Brons
anke.brons@wur.nl

[1] ICLEI, Local Governments for Sustainability e.V., Kaiser-Friedrich-Str. 7, 53113 Bonn, Germany

[2] Department of Social Sciences, Wageningen University, Hollandseweg 1, 6706, KN, Wageningen, The Netherlands

Introduction

The EU Farm to Fork strategy (European Commission 2020) highlights the need for a resilient food system capable of providing access to affordable food in all circumstances. This has become increasingly important in light of recent disruptive events such as the Covid-19 pandemic, natural disasters, and geopolitical conflicts, which boosted food security developments on a more regional scale (Bindraban et al. 2008). Currently, the EU's regional food provision is heavily reliant on migrant and seasonal food workers (MSFWs), who often face precarious living and working conditions. MSFWs are essential to European food production, with third-country nationals performing the majority of the harvesting in the fruit and vegetable industry (Martin 2016). During the Covid-19 pandemic, the significance of MSFWs in the EU food system became visible when restrictive travel measures disrupted international labor flows, particularly for MSFWs from countries outside the EU,

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resulting in labor shortage and harvest losses (Cook 2020; Sánchez-Nicolás 2020).

Exposing the EU food system's critical dependence on MSFWs also revealed that MSFW's experience higher rates of food insecurity exacerbated by their precarious living and working conditions, which sparked public indignation (Rippingale 2019; De Pablo et al. 2020; Endedijk and Medium 2022). These precarious conditions can be related to the EU's strategy of prioritizing the affordability of fresh produce through minimizing food production costs, as manifested in the Farm to Fork strategy: "…ensuring access to a sufficient supply of affordable food for citizens." (European Commission 2020). However, there appears to be a distinction between those considered 'citizens', entitled to affordable food, and those working to provide these foods, who may or may not (yet) be citizens and whose needs and preferences are less visible and cared for. Ironically, the EU's institutional efforts to promote affordable foods are inextricably linked to the consequent proliferation of precarious work, which in turn potentially jeopardizes the EU's food system resilience and its regional food security. Besides normative justice and inequality concerns about precarity, it is crucial to understand and address the perspectives of MFSWs to ensure their inclusion in the EU's resilience strategy (Levkoe 2021). Little is known about the lived experiences of MSFWs in the EU food system, where perspectives are placed at the intersection between the individual and the structure, with the exception of the studies conducted by Lee (2015), Bailey (2016), Brons et al. (2020) and O'Reilly and Rye (2021). This paper aims to contribute to the understanding of the daily food routines of MSFWs in the EU through the case of Almería, Spain, home to the highest concentration of greenhouses in the world and responsible for producing most of the fruits and vegetables consumed in the EU.

The situation in Almería serves as a vivid representation of a fundamental aspect of the EU's fruit and vegetable sector as being dependent on labor from both non-national sources within EU member states and third countries. However, the prevailing statistics on farm employment and seasonal work fail to accurately capture the actual state of affairs within the EU. In nations like Spain, particularly in Mediterranean regions, a significant portion of agricultural activities is undertaken by MSFWs who are already residing in the country but entered through pathways that lack official documentation. Statistics suggest that around 150,000 permits for employing seasonal laborers are issued annually in Spain (European Parliament 2021). Yet, a striking disparity emerges when considering the circumstances in Almería alone. In this province, a staggering 100,000 MSFWs are working in the province greenhouses, out of which 80,000 workers lack legal status within the country and consequently remain absent from official records, according to the Spanish Field Workers Syndicate (SOC). This highlights a substantial discrepancy between documented data and the actual situation on the ground.

Existing literature concerning the case of Almería has predominantly explored the experiences encountered by MSFWs through an emphasis on structural factors that influence their living and working conditions, i.e. immigration policies, agri-food production systems or labor market conditions (Martinez-Brawley and Gualda 2006; Hartman 2008; Izcara-Palacios 2009; Paloma et al. 2014; Gerbeau and Avallone 2016; Rye and Scott 2018; De Castro et al. 2019). However, there has been limited direct engagement with the viewpoints of MFSWs themselves, except for the work of O'Reilly and Rye (2021), who examine migrant perspectives across various European contexts. These studies reveal that MSFWs in Almería often live in isolated spaces like old country houses, informal settlements or segregated neighborhoods, which reduces their access to formal food retail outlets. They also face institutional invisibility with their undocumented status leading to more precarious working conditions, such as job insecurity and low wages. A small number of studies examined the micro level of MSFWs in Almería, adopting an individual food and nutrition security perspective (Gutiérrez-Izquierdo et al. 2013; Benazizi et al. 2019; Zimmerer et al. 2020).

While acknowledging the critical nature and significance of these issues and dimensions that warrant deeper investigation, it is noteworthy that no research has yet placed the MSFWs' food practices in Almería at the center of inquiry. This entails an examination of individual experiences within the broader framework of structural factors that influence them.

To gain a better understanding of the MSFWs' lived experiences in relation to their food security, this study focuses on MSFWs' food acquisitioning practices as an essential part of daily routines. Rather than focusing solely on a narrative of vulnerability and struggles, this research aims to explore how MSFWs in Almería navigate the food environment and organize their own food security. By shedding light on the lived experiences of MSFWs, this study brings into focus what is currently unnoticed, highlighting the needs and preferences of a vital group of workers on whom the EU food system depends. Previous home country food routines are recognized and considered, which includes examining MSFWs' engagement with informal (i.e. non-market, non-capitalist, un- or alternatively paid) vendors and social networks in the process of acquiring their daily food, which contrasts with the highly regulated and formalized (i.e. market-driven, capitalist, with wage labor), large-scale European food system in which MSFWs work in (Crush and Young 2019; Gibson-Graham 2008). Formal, informal, and hybrid economies and structures might coexist as the backbone of the EU food system resilience. Therefore, shedding light on previously hidden informal food practices and

their structures can help us envision food security interventions that are inclusive for all actors involved. This paper addresses the question: how do the people that feed Europe feed themselves? In exploring MSFWs' daily food routines, we employ a theoretical framework that combines a social practice theories' approach with diverse economies. The next section of the paper outlines our theoretical approach, followed by a methodological section that presents our theory-informed qualitative methodology. We then present our findings, which demonstrate the (in)formal variability in food practices of MSFWs and how these are related to their length of stay in the country. Finally, we provide a discussion and conclusion based on our findings.

Theoretical framework

In understanding how the people that feed Europe feed themselves, we complement a primarily practice theories-informed approach with a diverse economies' perspective. Below we first expand on our practice theoretical lens, next on our diverse economies' perspective, and finally we explain the added value of combining these two. In short, both theoretical perspectives look at everyday lives, with diverse economies primarily adding the focus on formality versus informality and social practices allowing for detailed in situ attention to daily lived experiences.

Social practice theories

In exploring the everyday food-related activities of MSFWs, such as food acquisitioning, social practice theories and their focus on the 'mundane' offer a suitable theoretical lens to capture daily lives by means of identifying habits and routines. Although there is not one unified practice theory, practice theoretical approaches share similar historical and theoretical backgrounds (see Schatzki (2011) for more details on these origins). Taking a middle ground between individualistic and structural approaches, social practice theories prioritize neither individual agency nor social structure (Southerton and Evans 2017). Moreover, social practice theories do not regard practices as isolated experiences, but as linked to each other in bundles through their material, social, and temporal dimensions (Dyen et al. 2018). Practice theories have been widely used in the field of food consumption (e.g. Warde 2005; Evans et al. 2012; Neuman 2019) and many other types of consumption, such as energy (Greene and Fahy 2020) and water (Pullinger et al. 2013).

Practices are located at the intersection between lifestyles and the food environment. For this study, lifestyles are defined as bundles of practices that influence and are influenced by food acquisition practices (Schatzki 2011; Shove et al. 2012; Brons et al. 2020). The food environment is defined as "the interface that mediates people's food acquisition and consumption within the wider food system" (Turner et al. 2018, p.95). But practices are not static; they may shift or disappear, and new practices may emerge when connections between practice elements and/or links between interconnected practices are made, sustained or broken (Hoolohan et al. 2022). Practices are also composed of elements that can be categorized into materials, meanings and competences (Spaargaren 2000; Reckwitz 2002; Shove and Pantzar 2005; Lamers et al. 2016). Shifts in these elements can ultimately result in changing practices, meaning routines can change because of transformations in the social and/or the physical environment (Hoolohan et al. 2022; Brons and Oosterveer 2017; Wertheim-Heck and Spaargaren 2016).

In other words, routines might be reproduced, transformed, or contested in new environments due to alterations in practice elements as well as by alterations in bundles of practice. Seeds for such change can be found in changing lifestyle conditions, such as migration (Brons et al. 2020), such as when MSFWs arrive in Almería, or in changing structures of food provision (Wertheim-Heck and Spaargaren 2016). This research looks at changes in food practices in relation to the MSFWs countries of origin and within the dynamic food provision structures of the host country (see also Greene and Rau 2016).

As we will further detail below in our Results section, the interactive adaptive responses of MSFWs, studied through their 'doings' (the actions of people) and 'sayings' (the discourses and meanings behind actions) (Schatzki 1996), importantly relate to the length of stay in the country and the path to citizenship or permanent legal status. Social practice theories view practices as being carried out by practitioners or groups of people "who share a common understanding of what the practice entails, and who draw on this shared understanding in their practice" (Schatzki 2001, p.10). We apply this 'practitioner' perspective to MSFWs, where the distinction between short-term and long-term stay in Spain is seen to affect food acquisitioning practices (see the Recruitment and legalization challenges for MSFWs in Almería section below for more detail). An interesting perspective here is the concept 'migration habitus' discussed by O'Reilly and Rye (2021), building upon Bourdieu's notion of habitus, which aligns closely with practice theories. O'Reilly and Rye define migration habitus as "the migrants' prior internalization of migration as a potential strategy, and their embodied and tacit adjustment to the parameters of action in their social contexts" (2021, p.237). Our findings highlight that the migration habitus of short- and long-term migrants, in this study observed through their food acquisitioning practices, is interdependent, with the latter influencing the former as it evolves over time.

Diverse economies

The diverse economies theory defends a broad understanding of the term ‘economy’, including activities that do not necessarily only hold monetary value, but also other values such as human well-being. This is used as an analytical apparatus to engage with the workings of the (in)formality spectrum in everyday life based on the economic concepts of transactions, labor and enterprises, making a distinction between ‘hybrid’ and ‘informal’ (Gibson-Graham 2008). The diverse economies perspective critiques how a mainstream understanding of capitalist economies fails to consider the alternative economic practices and social relations. Thus, Gibson-Graham (2008)’s attempt to show that "alternative" or "diverse" economic practices, which are often left outside of the capitalist purview, is critical if one hopes to envision a more inclusive and resilient food system.

In the EU, discussions on food system resilience tend to overlook practices that are related to "subsistence, reproduction, and the home (…) and which, perhaps more importantly, take place outside the market" (Sovová 2020, p.36). Still, informal practices do appear to comprise a large share of people’s everyday routines (White and Williams 2016). By looking beyond the hegemonic concept of what ‘the economy’ means, we can find an important basis to identify food acquisitioning practices that could have otherwise remained invisible. As briefly touched upon in the introduction, MSFWs in Almería often come from precarious backgrounds, growing up with high rates of food insecurity and a strong reliance on informal food provision structures in their countries of origin (Crush and Young 2019). After enduring migration, the routines of engaging in such informal food practices are likely to (at least partly) persist in the new country, even when encountering a new food environment that is largely formalized, as is the case in Spain. To get a better understanding of the role of (in)formality in MSFWs food practices, we propose using the framework of diverse economies (Gibson-Graham 2008).

Migrant food acquisitioning practices can therefore be understood through the lens of diverse economies to recognize the existence of multiple diverse economic practices beyond the mainstream market economy. In this way, we can consider a full formal-informal spectrum of food acquisitioning practices from an economic materiality perspective. The use of diverse economies is therefore relevant for the purpose of this study, since it brings informal economies and a broader spectrum of social values to the limelight (Pungas 2019), which would help us further contextualize them over time and space. Unraveling MSFWs’ food practices and how they relate to (in)formal food provisioning structures can also help to paint a more representative picture of the relations of production in the EU’s food system. This would ultimately contribute to a better understanding of MSWFs’ needs and rights to be legitimately considered in inclusive food system transitions (Bui et al. 2019).

Combining social practice theories with diverse economies

Having briefly introduced these two theoretical perspectives, we now explain our motivation for combining them in this study. Both theories share an appreciation of the mundane and the routine (Sovová 2020), and they build on the idea that the aim of social science is to provide a more extensive and nuanced understanding of reality, and not just simple, one-directional answers to complex questions (Nicolini 2012). Practice theories’ strengths lie in starting from daily lived experiences. A diverse economies perspective takes a slightly different analytical focus with detail to the workings of (in)formality in everyday life (Gibson-Graham 2008).

Complementing the two perspectives not only helps categorize food practices along the formal-informal spectrum but also goes beyond categorization and helps gain a more in-depth, holistic and thus nuanced understanding of the dynamics in how and why MSFWs in Almería engage in these (in)formal food acquisition practices. This is important because the role of informality is often overlooked in discussions and interventions aimed at creating a more inclusive and resilient EU food system, and the significance of the 'informal economy' may be underestimated.

To operationalize this combination, the study’s conceptual framework is depicted in Fig. 1. The first step involves pinpointing various ways in which food is acquired. This is done by creating a portfolio of distinct food acquisition practices, informed by diverse economies. Next, these practices are categorized along the formal-informal spectrum to assess the influence of informality on how MSFWs in Almería acquire their foods. The study then delves into the relationship between these practices and how the MSFWs lifestyles change over the course of migration. It explores how these food acquisition practices dynamically interact with the food environment that MSFWs encounter.

Methodology

Building on social practice theories combined with diverse economies, this research is designed to explore the MSFWs’ lived experiences by investigating the actors and how and in what context they perform their food practices (investigating their ‘doings’).

Considering the plurality of social practice theories, Nicolini (2012) proposed what he called a toolkit approach: a package of theory and methods. The goal of the toolkit approach is not to provide a theory on how the world works, but to acknowledge the complexity of reality by delineating

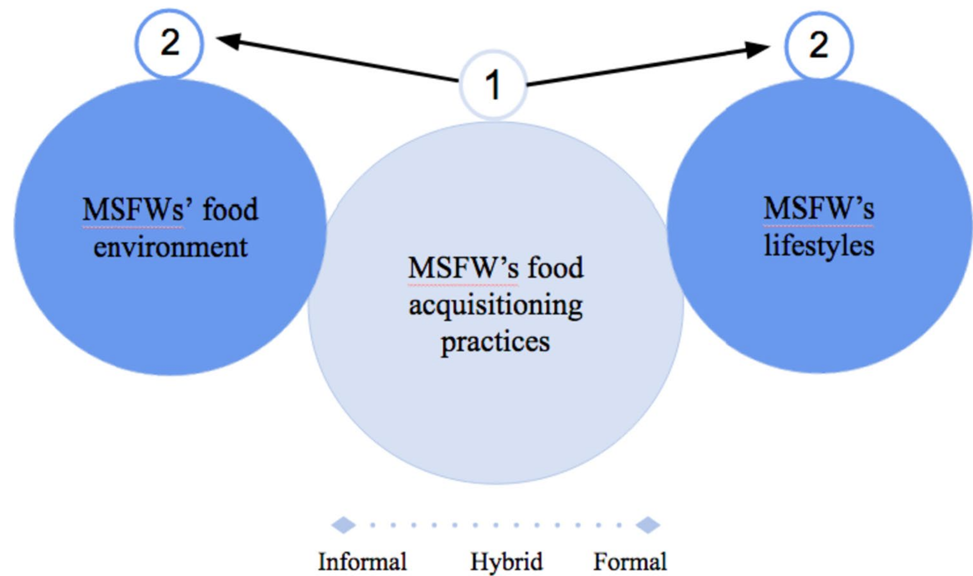


Fig. 1 Conceptual framework for studying the role of informality in the portfolio of MSFWs food acquisitioning practices: (i) identifying and categorizing practices informed by diverse economies theory, and (ii) studying their connections to MSFWS' evolving lifestyles and interactions with the food environment, informed by social practice theories

a methodology that combines various conceptual tools to understand practices (Nicolini 2012). He proposes the zooming-in-and-out technique to operationalize the toolkit, which consists of two moves as also indicated in Fig. 1. The first move (1) is the action of zooming in on the practices in daily life. Zooming in for this research entails investigating the different food acquisitioning practices of MSFWs in detail to be able to develop a typology of these practices and classify them along the informal-formal spectrum (see the Zooming in: performance of food acquisitioning practices section). Next, the second move (2) of this technique is zooming out (see the Zooming out: food acquisitioning practices, lifestyles and the food environment section). This is important to apply because practices can only be studied in relation to one another, since they extend in both time and space, connecting in bundles of practices (Nicolini 2012). In this research, zooming out helps to uncover how the dynamic lifestyles of MSFWs and Almería's dynamic food environment influence and are influenced by food acquisitioning practices, and how these are contested or kept in place.

Methods

This study enacts Nicolini's toolkit approach (2012) through a combination of qualitative methods. With the aim of obtaining in-depth understandings, these methods are not closely controlled but allow for an adaptation to dynamic realities (Salkind 2010), which is particularly relevant to capture the complexity of informality in the practices of practitioners who face physical and institutional invisibility. The study followed a sequential research design and started with a desk research about the role of MSFWs in EU food systems. The aim was to understand the process of hiring workers from outside the EU for farming seasons, and how this process differed from Almería's situation as well as other regions in the South of Europe. The results of the exploratory desk research informed the moves of zooming in and out of practices (see Fig. 1).

The main author carried out the fieldwork in Almería during April and May 2021. It started with an expert consultation of 3 interviews with NGO officers working on projects related to migrant populations and greenhouse workers. Some of the NGO officers interviewed went through a migration process themselves and one of them also worked in greenhouses before having their legal status regularized. The interviews were particularly relevant in providing additional insights into the demographic and cultural context, given the lack of academic literature about MSFWs' experiences in Almería and the demographic background of the main researcher, being a white and documented person from Almería. Understanding the local context and population, complemented by the desk research, allowed the authors to build a comprehensive participant recruitment strategy. This strategy would not have been possible to follow if the main author was not originally from Almería, with already established and strong networks in the city. As agriculture is one of Almería's main industrial sectors and employs a large part of its population, connections with MSFWs through mutual contacts were commonly found.

This study employed an opportunity sampling approach (Creswell 1998) that included cold calling through personal networks and a snowball recruitment for both NGO and MSFW participants. Key sources from the main author's personal network were used as entry points to find participants, such as friends and family of the researcher working with MSFWs, lawyers, greenhouse workers and owners, and NGO workers and volunteers. Approximately 40 people were contacted throughout the recruiting strategy. These

initial contacts provided additional contacts, and this process continued until a connection with a MSFW was established, following a snowball recruitment approach. All participants listed in Table 1 provided informed consent, which was obtained in writing by NGO officers and orally by MSFWs. Written consent was not deemed as appropriate for MSFWs due to language barriers and potential sensitivity regarding document signing, especially for those holding an undocumented status. Consent was recorded and included in the transcription documents instead.

Interviews with MSFWs were conducted in Spanish, English and Arabic (the latter was facilitated by a user of one of the NGO officers contacted for interviews). The interviews allowed zooming into food acquisitioning activities by placing the focus on the routine and the everyday, as well as zooming out on MSFW's lifestyles and their food environment. Looking at personal narratives helped identify routines and daily practices that at first could have seemed as mundane, such as those carried out subconsciously (Hitchings 2011). In cases where the research participants lived with a partner or spouse, dyadic interviews were carried out (since the task of food acquisitioning was divided or even passed on to them), composed of open-ended questions asked to the two participants at the same time. The participants commented on each other's answers and drew responses from each other, allowing a co-constituted interpretation on a topic (Morgan et al. 2013). The length of the interviews varied, ranging from 20 min to 1 h, depending on the time availability of the workers and the level of information saturation. The interviews were transcribed verbatim in their original language uploaded to the coding software program Atlas.ti and were coded both inductively and deductively.

Semi-structured interviews were combined with 6 observations to zoom in on the material environment of MSFWs and how they interact with it (Dyen et al. 2018). The observations were conducted in two ways, with and without active participation of the main author. In shops and local markets, observations were made to look at the 'doings' of the participants and the food environment of Almería. The main author also participated in volunteering days with local NGOs that involved the participation in Spanish classes and food bank operations. The direct participation in existing projects with MSFWs facilitated the observation of their food acquisitioning practices as well as the recruitment of participants for possible interviews. However, due to Covid-19 distancing recommendations, observing a diverse range of food acquisitioning practices was deemed difficult, particularly those occurring in small and confined spaces.

To offset these restrictions, observations were complemented by illustrative photography. Prior consent to share in the study, MSFWs were asked to photograph with their own cameras some of the food acquired and the places where they did so that were mentioned during the interviews, along with a brief description of them. A total of 5 participants shared pictures related to their food acquisitioning practices. The pictures were not discussed with the participants but were rather used to compare the 'sayings' of the 'doings' collected from the interviews. The use of photography was analytically relevant for the study because it allowed us to observe the practices of the participants and the environments where food acquisitioning takes place that were not easily accessible because of the Covid-19 restrictions.

Recruitment and legalization challenges for MSFWs in Almería

The recruitment process of MSFWs in Almería appeared to be substantially different from that of agricultural laborers who come to work in other EU countries through a collective management of hiring in the countries of origin (European Parliament 2021). Many MSFWs in Almería hold an undocumented status in the country and the recruitment process to work in local greenhouses takes place on a daily basis through informal avenues, e.g., waiting near roundabouts where cars pass by and hire workers for the day. The desk research revealed that the 4th year of stay in Spain is considered a defining moment for MSFWs to start regularizing their legal situation, even if the process is complex and costly. In Spain, a person who has entered the country in an irregular manner needs to wait at least 3 years before they are allowed to start the residence application process, under which the applicant needs to submit certain documents to prove they have been working and living in the country for such duration, including an employment contract and a municipal census registration (Spanish Ministry of Inclusion, Social Security and Migrations 2022). Once the documents are submitted, the review process takes a minimum of one year to be completed. Therefore, it requires at least 4 years to have the possibility of obtaining a permanent legal status in the country. However, this possibility is not always granted. Sometimes the process is lengthier, depending on different factors such as the costs for the collection and delivery of the required documents, the capacity of the municipality to make appointments and process the information, and many other variables. Therefore, obtaining a legal status in the country after four years is not ensured, and this is the reason why not only short but also long-term MSFWs can hold an undocumented status in the country. A relevant distinction between short- and long-term MSFWs should therefore be accounted for. Our interview sample included MSFWs with different lengths of stay in the country and consequent differences in their legal status. Table 1 provides an overview of the distinction between short-term (< 5 years in Spain; 4 participants) and long-term (≥ 5 years in Spain; 10 participants) MSFWs. We make a distinction between

Table 1 Summary of the most relevant demographic characteristics of the interviewees divided in short-term MSFWs, long-term MSFWs and NGO officers

	ID number	Country of origin	Years in Spain	Legal situation	Occupation	Age	Gender	Household composition	Place of residence	Type of dwelling	Picture sharing
NGO Officers	ID01	Morocco	21	Regularized	NGO worker	41	F	Married, living with spouse	Roquetas (West)	Private apartment	No
	ID02	Ivory Coast	25	Regularized	NGO worker	–	M	Married, living with spouse	Almería (capital)	Private apartment	No
	ID03	Morocco	–	Regularized	NGO workers	–	M + F	–	El Ejido (East)	Private apartments	No
Long-term MSFWs (≥ 5 years)	ID04	Morocco	6	Regularized	Stay-at-home mom	32	F	Married, living with spouse	Los Granaínos (East)	Informal settlement	No
	ID05	Ghana	12	Regularized	MSFW	31	M	Single	Retamar (East)	Private apartment	Yes
	ID06	Morocco	13	Regularized	MSFW	31	M	Married, spouse in country of origin	Roquetas (West)	Private apartment	Yes
	ID07	Senegal	13	In progress	Home peanut seller	51	F	Single	Roquetas (West)	Squatted, private apartment	Yes
	ID08	Morocco	14	Regularized	MSFW	34	M	Single	Las Marinas (West)	Country house	No
	ID09	Guinea-Bissau	17	Regularized	MSFW	32	M	Married, living with spouse	Las Marinas (West)	Private apartment	No
	ID10	Ecuador	19	Regularized	MSFWs	41 + 46	M + F	Married, living with spouse	La Cañada (East)	Country house	No
	ID11	Senegal	20	Regularized	MSFW	43	M	Married, living with spouse	El Ejido (West)	Private apartment	Yes
	ID12	Senegal	27	Regularized	MSFW	62	M	Single	Roquetas (West)	Private apartment	Yes
	ID13	Morocco	–	Regularized	Local shop owner	–	F	Married, living with spouse	San Isidro (East)	Private apartment	No
Ωshort-Term MSFWs (< 5 years)	ID14	Guinea-Bissau	2	In progress	MSFW	28	M	Single	Albaricoques (East)	Squatted, shared apartment	Yes
	ID15	Mali	2	In progress	MSFW	31	M	Single	San Isidro (East)	Squatted, shared apartment	Yes
	ID16	Togo	3	In progress	MSFW	23	M	Single	Almería (capital)	Shared apartment	Yes
	ID17	Gambia	4	In progress	MSFW	32	M	Single	Ruescas (East)	Country house	Yes

short-and long-term MSFWs throughout the rest of the paper (see also Fig. 2), since the benefits associated with a regularized status turned out to greatly influence food acquisitioning practices, such as being allowed to buy and drive a car, decisive factors influencing food acquisitioning that we further delineate in our Results section below.

Results

Portfolio of food acquisitioning practices

The analysis of the data collected during the fieldwork uncovered a range of food acquisitioning practices for MSFWs. Asking MSFWs directly about their practices allowed to break away from the standardized formal and alternative categories of food acquisitioning practices that are considered as the benchmark in Europe, such as shopping from supermarkets, grocery stores, online or from organic stores. Some of the practices recognized were gift-giving, bartering and self-provisioning. Some MSFWs relied on gifts and mutual aid from their social networks to access food, as well as on bartering or trading goods and services from other community members. Others also engaged in self-provisioning by growing their own food. In addition, MSFWs may participate in market-based transactions by buying and selling food at local markets or stores.

The diverse economic practices identified comprise an assessment of the portfolio of migrant food acquisitioning practices in Almería. Figure 2 illustrates these portfolios (Wertheim-Heck and Spaargaren 2016) by categorizing the practices along a spectrum from formal to informal, showing how much engagement MSFWs have in them. Categorizing and mapping the distinct practices along the (in)formality spectrum helps to understand how the food security strategies of MSFWs intersect with the mainstream market-based economy. Looking at a portfolio of practices was therefore instrumental to uncover wider social dynamics and changes in material conditions that influence how practices emerge, develop, and hang together, which will be explained in the following sections.

Zooming in: performance of food acquisitioning practices

We deployed a social practice theories' informed analysis to obtain more in-depth understandings on MSFWs' engagement in food acquisitioning by first zooming into representations from the practices portfolio performed by short- and long-term MSFWs.

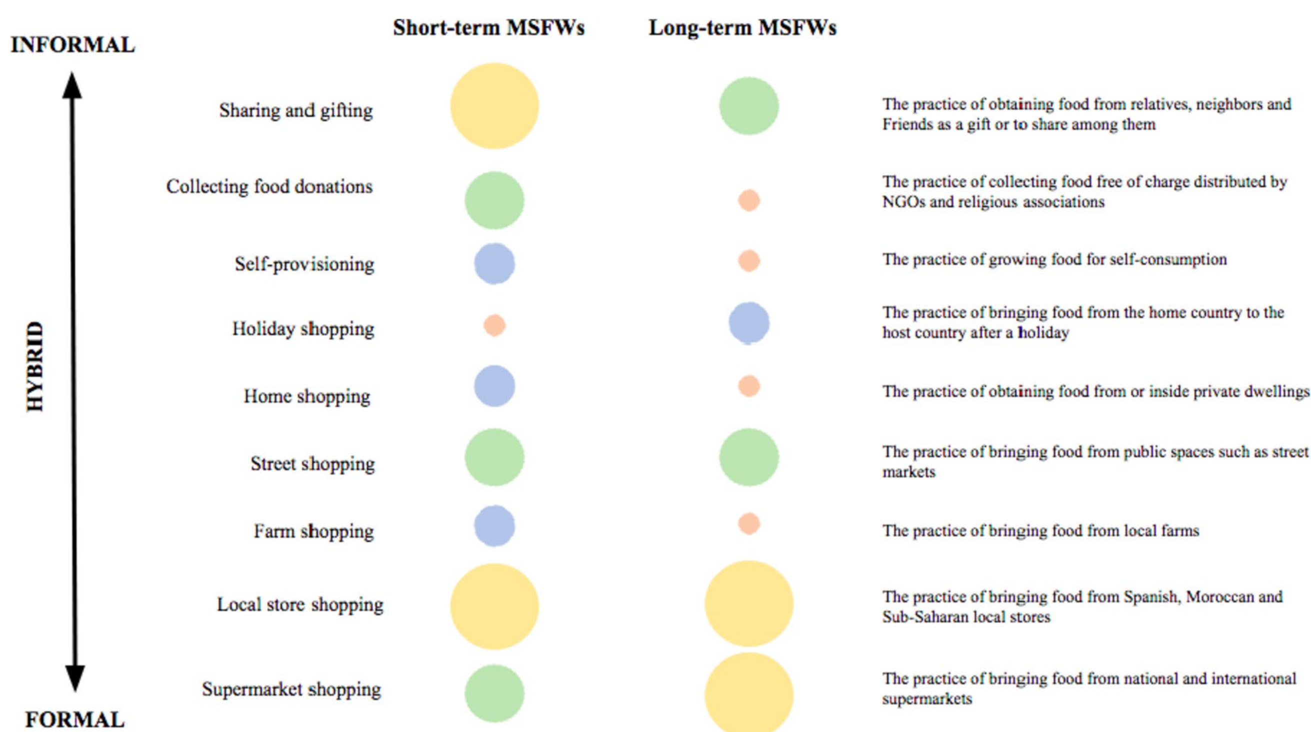


Fig. 2 Typology of the food acquisitioning practices that participants engage in classified along the formal-informal spectrum, with a distinction between short-and long-term MSFWs. Different colors are associated with different sizes; the bigger the size, the more dominant an acquisitioning practice is for the group mentioned. The size of the circles is an illustrative impression of the dynamics observed in practices retrieved from the fieldwork and are not exact quantifications. Inspired by Wertheim-Heck and Spaargaren (2016)

Food acquisitioning by short-term MSFWs

Sharing and gifting practices are a significant part of the food acquisitioning portfolio of short-term MSFWs. All short-term MSFWs interviewed participated in them, albeit in different ways. The food that is usually shared or gifted consists of seasonal vegetables cultivated in greenhouses. Greenhouses in Almería often specialize in single crop production, which varies from one greenhouse to another. This allows workers to exchange surplus produce with friends, family and neighbors and is particularly common in small-scale or family-owned greenhouses, which tend to be more flexible with their excess production (see Figs. 3 and 4):

"If we have peppers, we take a few before going home. If you don't take, the neighbor brings some to you. This is an agricultural area. You always have vegetables. Going to Mercadona (Spanish supermarket) to buy vegetables…? I don't remember doing it. You always have vegetables." (ID11. LT, M).

Though sharing practices are not a monetary transaction, sharing is something that is expected to be reciprocated to a certain extent, fostering a sense of community in which everyone tries to help each other (see Fig. 4). For short-term MSFWs, this practice holds the significant meanings of sustenance and support in the quest to adapt to a new cultural and geographical context. It is essential for short-term migrants to establish community links to feel a sense of belonging, especially if they live in more remote areas. These communities can be physical communities, like informal settlements or apartment

Fig. 3 Pictures illustrating food practices of self-provisioning that are also used for sharing, gifting and market exchanges (First author)

Fig. 4 Worker harvesting a watermelon from the greenhouse to bring it home (First author)

buildings, or can be based on demographic characteristics like nationality:

"Yesterday a person came to bring a bag of peppers, he lives close by (…). We, the foreigners, are like this. We help each other. Do you know why? I don't have family here, I don't have anyone. So, each person helps the other. If someone has tomatoes but doesn't have cucumbers, they call me and we exchange." (ID08. LT, M).

"The Senegalese, in general, if we know someone, we'll always open our houses to them. (…) They won't be hungry until they start working and participating like the rest. That's how we work. This is a culture that we have had since we were children. We are educated to help others." (ID12. LT, M).

"When someone arrives in Spain, everyone helps everyone so that we can all eat. So that we can all have a good life. Arabs are like that. Every week we give out carrots, eggplant, sometimes avocado… and if someone is not working, we gift it to them. (…) We share with neighbors, family…" (ID06. LT, M).

Collecting food donations is a practice that is almost exclusively carried out by short-term MSFWs, who engage in it with relative frequency (see Fig. 5):

"We have users who work in the fields. They work very little, so it's not enough to make a living. Keep in mind that they have debts, responsibilities, families and children that they left in their countries of origin… (…) Then, the people who work only a few days send away the little money they have, or use it to pay debts." (ID01. NGO, F).

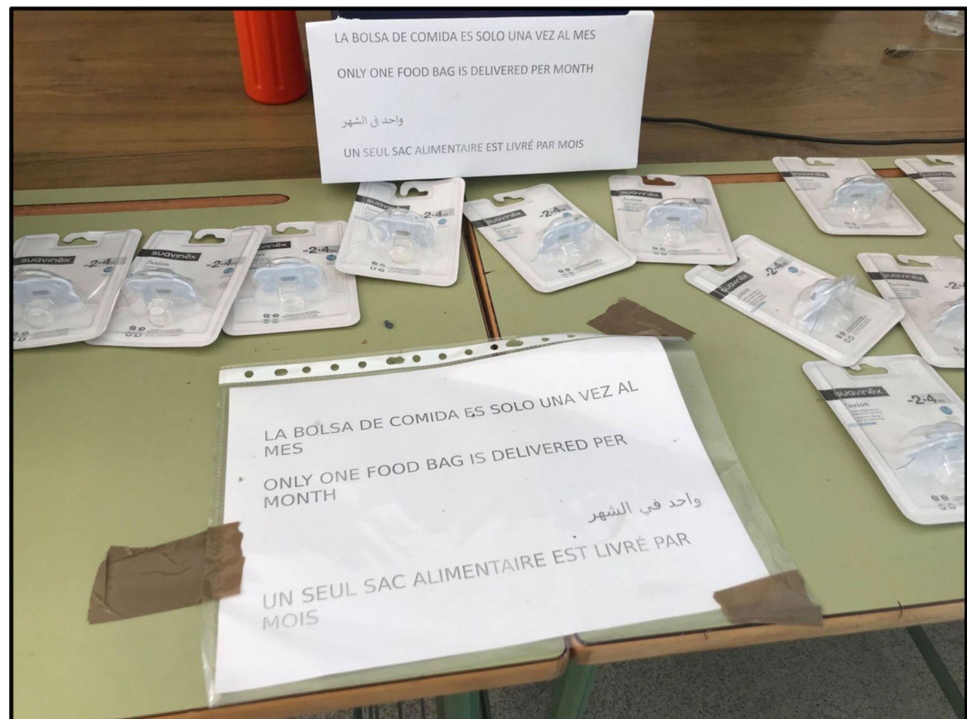


Fig. 5 'Only one food bag is delivered per month'. Poster in a religious association's food bank (First author)

However, their dependence on food donation decreases the longer they stay in the country, primarily because they generally gain access to more stable jobs and income sources. When engaging in this practice, the food collected through donations is often not culturally appropriate for MSFWs. Food banks importantly distribute non-perishable foods like flour, rice, pasta, oil and canned goods. But the lack of fresh ingredients and the lack of knowledge to cook certain donated Western foods adds to the feeling of being an outsider, especially for short-term MSFWs:

"If you have to ask for food, you have to conform to what they give you. But when you shop, people tend to buy food from their countries. (…) When you're hungry, you must eat what they give you. But when you have money and a job, you buy that (food from your country)." (ID02. ONG, M).

To afford fresh foods, culturally appropriate food and other essential items, MSFWs may resort to selling parts of the donated foods to local stores run by long-term MSFWs as a survival strategy, in exchange for a small amount of money:

"They used to give us English foods like 'beans'. There were many foods like that but we also learned how to cook Spanish meals. At that time, we were new and the food was different from ours. So, we often sold it to local stores." (ID05. LT, M).

The practice of collecting food donations is often linked with the practice of shopping from local stores, since these stores target other short- and long-term MSFWs. Short-term MSFWs also frequently shop at local stores due to (i) their increased familiarity with shopping at local stores in their home countries, (ii) the wider selection of culturally appropriate products provided, (iii) their convenient location within the villages and informal settlements, (iv) their more flexible opening hours, and (iv) to mitigate language barriers, even though prices are higher than in supermarkets:

"Keep in mind that many people don't speak Spanish when they first arrive in Spain. They go to migrant local stores because they can't buy from a bigger store. They don't go to Spanish stores or supermarkets unless they have no other option, so that they can communicate." (ID12. LT, M).

For short-term MSFWs, the quantities sold at local stores also play an important role in engaging in this practice. Products tend to be available either in small packages, starting at 100 g, or in large bags up to 10 kg. Such quantities are not commonly offered in other retail stores like supermarkets. This material element of the practice reproduces familiar practices from their home countries in terms of quantities, making meal planning and budgeting more manageable.

Moreover, short-term MSFWs also engage in this practice more often because of the possibility of having credit options based on trust relationships, which replicates existing routines from their home countries and makes it particularly attractive, especially for short-term MSFWs who might face higher job insecurity:

"He knows my cousin (the store owner), so if we don't have money, we can talk to him and he writes down the name, and when we have money, we pay him." (ID14. ST, M).

The selected practices described above illustrate how short-term MSFWs sustain their food acquisitioning practices. Being less familiar with the cultural customs in the host country, short-term MSFWs rely on the skills and competences they bring from their home country in relation to shopping and cooking. Due to their often limited material resources, including finances, language proficiency and mobility (especially while residing in more remote areas), they are often less prone to engage in host-country market-based food acquisition practices like shopping in supermarkets. Instead, they depend on local networking and community building, and their practices are aimed at ensuring sustenance and a sense of belonging. The practices within the food acquisitioning portfolio therefore appear to be closely interconnected (bundled), as evidenced by the link between receiving donations and shopping at local stores. This highlights the agency of short-term MSFWs, despite their limitations, and the dynamic nature of these practices.

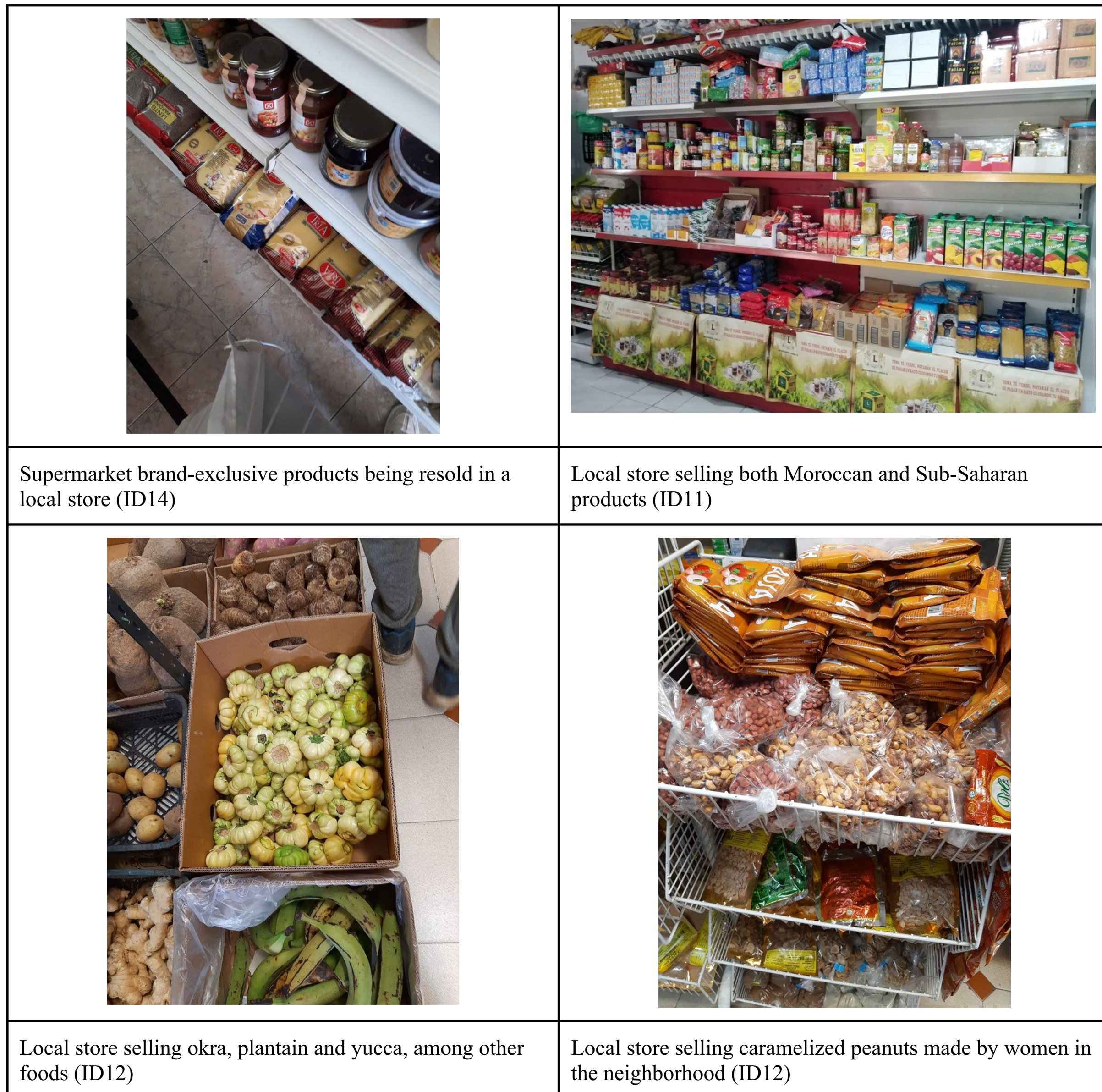
Food acquisitioning by long-term MSFWs

Long-term MSFWs also rely substantially on local store shopping within their food acquisitioning portfolio, primarily due to the availability of culturally appropriate products. Local stores are known to carry home-made products made by women in the surrounding area. These products, such as caramelized peanuts, bread and sweets are purchased directly by the store owners, who are often long-term MSFWs themselves. The widespread knowledge that these products are made locally and on a daily basis is an important reason to engage in this practice, because the meaning of freshness and tastiness associated with home-made food remains important regardless of the length of their stay in the host country (see Fig. 6):

"When I go to buy something in the African store, if I see peanuts, I buy them because I like them. (…) People know that the neighbors are the ones selling that." (ID12. LT, M).

"Some men, the store owners, if their wives can't do it they ask other women for food to sell. Because if Moroccan stores don't have Moroccan bread, sweets and many other Moroccan things, people will not shop there. Because if there is bread, they know is homemade." (ID04. LT, F).

For long-term MSFWs, supermarket shopping is the most central food acquisitioning practice. Interestingly, the long-term MSFWs interviewed did not engage in this practice back in their home countries. This practice has been found



Supermarket brand-exclusive products being resold in a local store (ID14)

Local store selling both Moroccan and Sub-Saharan products (ID11)

Local store selling okra, plantain and yucca, among other foods (ID12)

Local store selling caramelized peanuts made by women in the neighborhood (ID12)

Fig. 6 Pictures taken by participants to illustrate the local food store environment

to have a connotation of accomplishment or progress, creating a new routine:

"Here, the men can enter Mercadona (Spanish supermarket) after working in the greenhouses. In Morocco, only people with a good car—rich people—enter. Here you see men entering with shoes covered in mud from the greenhouse. If they would enter like that in Morocco, oh Lord. The ones who enter there (in Morocco) are rich." (ID04. LT, F).

As a result of engaging in supermarket shopping, long-term MSFWs develop new competences, like purchasing different quantities, buying slightly different or new products, like processed foods, and navigating expiration dates. These competences were not strictly necessary in their home countries, where food acquisitioning was often done on a daily basis.

The demand for culturally appropriate foods for long-term MSFWs is lower compared to short-term MSFWs, since there has been an accustomization process to routines from the host country. As a result, prices start playing a more crucial role in their food acquisitioning practices, especially when buying staple products. Although supermarkets in the area have limited opening hours, and most close on Sundays, their opening hours still fit the working schedules of long-term MSFWs, who are more likely to have Saturdays off work. In contrast, short-term MSFWs have overlapping working hours that make it more difficult to engage in this

practice, although certain coping mechanisms have been developed to still engage in the practice with the help of long-term MSFWs. Short-term MSFWs tend to live in more isolated areas and often lack access to transportation means to reach supermarkets. Long-term MSFWs who are car owners may provide (unofficial) transportation services to access supermarkets. Additionally, larger groups collaborate by creating a shopping list for a designated shopper. In return, they cover the expenses of the purchased items, transportation and a shopping service fee.

The practices described above reveal how culturally appropriate and homemade foods remain integral to the food acquisition practices of MSFWs, regardless of their length of stay in the host country. However, while long-term MSFWs still rely substantially on local stores for culturally appropriate products, supermarket shopping is now a central practice for them, signifying achievement as they were unable to access supermarkets in their home country. Through supermarket shopping, long-term MSFWs become more familiar with typically Western foods and may purchase slightly different or new products, such as processed foods, developing new competences and coping with a limited offer of culturally appropriate foods. Furthermore, car-ownership enables long-term MSFWs to access supermarkets and provide transportation services to other MSFWs, including short-term MSFWs. The food acquisition practices of long-term MSFWs demonstrate a shift in meaning, materials, skills and competences compared to short-term MSFWs.

Zooming out: food acquisitioning practices, lifestyles and the food environment

This section examines the food acquisitioning practices of MSFWs in relation to their lifestyles and the food environment, utilizing the 'zooming out' approach from Fig. 1. This approach allows us to understand the distinct portfolios of practices between short-term and long-term MSFWs based on how food acquisitioning practices are bundled with other (also non-food related) practices. We thus shed light on how MSFWs co-create and shape their food environment over the course of migration.

Factors such as limited working opportunities and their family structure have a significant impact on the lives of MSFWs. Short-term MSFWs have access to fewer job opportunities due to their undocumented status and limited language proficiency. In comparison to long-term MSFWs, who tend to work in more formalized jobs, they often work longer hours for lower pay in the greenhouses, as it is often the only informal job available to people with undocumented status. As a result, their working schedules (usually Monday to Saturday) interferes with the kind of food acquisitioning practices they engage in, like with supermarkets opening hours:

"What I do is, when the month is over, I pick a day—sometimes Saturday because some Saturdays we don't work. Sometimes yes, but we can sometimes finish earlier. Then I make it in time to do the monthly shopping. And I spend the money on my monthly shopping. I look at the expiration dates so that I can buy everything." (ID16. ST, M).

Family structure is another example of how food acquisitioning practices differ between short-term and longer-term MSFWs. Short-term MSFWs, who are not eligible for family reunification due to their undocumented status, mostly acquire food by themselves. In contrast, long-term MSFWs who are reunited with their partners and other family members delegate food acquisitioning and preparation tasks to the women in their families.

The practice portfolios of MSFWs in Almería are intertwined with the food environment. The demand for culturally appropriate foods and the need for social support have led to the emergence of an informal food environment. In the early stages of MSFW migration to Almería, obtaining culturally appropriate food was a challenge due to the scarcity of Moroccan and Sub-Saharan local stores, which were often only found in areas with a high concentration of MSFWs. In areas where MSFW's nationalities were in the minority, acquiring culturally appropriate food required traveling long distances. However, in the past two decades, long-term MSFWs have established local stores across the province, offering culturally appropriate products. These stores cater to the needs of short-term MSFWs and integrate migrant food practices into the Spanish retail context. By leveraging their experiences, long-term MSFWs created an infrastructure for short-term MSFWs by building businesses that facilitate access to culturally appropriate foods.

The shifting role of informality over time

To understand the role of informality in MSFWs' food acquisitioning practices, it is important to distinguish between short and long-term MSFWs. Physical and institutional constraints influence the degree of engagement of MSFWs in different practices. Long-term MSFWs generally have more freedom to navigate between formal and informal structures due to better access to transportation, less isolated living conditions and more regular working schedules. Although the agency of short-term MSFWs is limited compared to long-term MSFWs, they are not quite powerless in developing their food acquisitioning strategies. When short-term MSFWs transition to long-term MSFWs, their agency also changes, resulting in changes in the elements of practice including materials, meanings, and competences. These changes lead to shifts in their food acquisitioning practices.

Long-term MSFWs typically shift from informal to more formal food acquisitioning practices once they obtain legal status (see Fig. 2). This legal status allows them to

break with their previous routines and enter a more formalized food environment, reducing their dependence on informal means of food provisioning over time. Although engaging in informal food acquisitioning practices is no longer a matter of subsistence for long-term MSFWs, access to home-made and culturally appropriate foods still holds an important meaning. For instance, MSFWs may buy products from local stores owned by their neighbors or cultivate peppermint to make tea, as observed among North African MSFWs (see also Fig. 3). Even for long-term MSFWs, culturally appropriate food, particularly halal products, continues to influence their informal food acquisitioning practices due to religious preferences. Halal butchers and stores that specialize in offering halal products become essential sources for both short and long-term MSFWs. Because formalized vending sources may not offer these products, these less-formalized food acquisitioning practices remain important for obtaining culturally appropriate food (Fig. 7).

To summarize, the way MSFWs acquire food is influenced by a combination of cultural practices from their home country and the new food environment, which evolves over time. Despite having more agency to engage in formalized food acquisitioning practices, long-term MSFWs still engage in certain informal practices as a cultural preservation strategy. Additionally, the proactiveness and entrepreneurial nature of long-term MSFWs enables short-term MSFWs to have access to the food they demand. Therefore, the food practices of short- and long-term MSFWs are interdependent and give rise to a self-sustaining system of food provisioning and acquisitioning. This system combines formal and informal practices, leading to the emergence of a range of hybrid practices.

Discussion

This research aimed to understand how MSFWs organize their own food security by exploring the food acquisitioning strategies and how they navigate the food environment in Almería. Here we highlight 3 core points for further discussion: (1) informality and the working and living conditions of MSFWs; (2) rethinking the concept of informality; and (3) implications for the EU food system.

Firstly, our study highlighted the precarious working and living conditions often experienced by MSFWs, especially short-term workers. This finding contradicts the EU's Farm to Fork strategy, which calls for the improvement of primary producers' livelihoods, stating that: "ensuring a sustainable livelihood for primary producers, who still lag behind in terms of income, is essential for the success of the recovery and the transition" (European Commission 2020). The major vulnerability of the EU fruit and vegetable production system appears to be its dependence on MSFWs who perform essential tasks under precarious and insecure conditions, often without a legal status and its consequent rights, not only in Southern Spain but also in other countries (Palumbo et al. 2020). This reliance highlights the unfair and unjust food security structures currently in place, creating a dichotomy between those considered citizens, entitled to sufficient and affordable food, and those not considered citizens, compelled to accept jobs that provide these foods. The majority of MSFWs in Almería's greenhouses find themselves in temporary and informal situations, which institutionalize their precarity and ultimately perpetuate unfair structures. As O'Reilly and Rye (2021) argue, "migrants always have to fit agency to conditions" (p.242), meaning that migrants' possibilities and aspirations are limited by the social and material

Fig. 7 Iftar meal during Ramadan (ID06) and halal butcher (First Author)

structures in which they find themselves. Through their daily food practices, to some extent, MSFWs also perpetuate structures of exclusion and inequalities that are unjust. Therefore, the resilient practices of MSFWs are crucial in maintaining the current food system, but they also expose the system's vulnerabilities and the need for more inclusive transformations. It is essential to shed light on these previously hidden food practices and structural conditions that create inequality and exclusion. This understanding is vital for informing policy interventions. In particular, obtaining legal status becomes a disruptive moment that offers a window for policy interventions to improve MSFWs' situations and support more resilient and inclusive food system practices and transitions.

Secondly, we showed how food acquisitioning practices of MSFWs in Almería could be classified along a formal-informal spectrum. Employing a diverse economies perspective, our aim was to depict the diversity in ways of 'doing' rather than assigning normative connotations to (in)formality. Combining diverse economies and social practice theories allowed us to represent food acquisitioning practices more comprehensively and demonstrate how informal and formal economies are intertwined in the food acquisitioning practices of MSFWs. Broadening our focus beyond the economic perspective allowed us to recognize the co-existence and diversity of different food acquisitioning practices common not only in the Global South but also in the Global North as a result of migration flows, especially in regions situated at the intersection between continents like Almería, which can be considered both the South of the North and the North of the South. In the EU, mainstream food acquisitioning practices include shopping at supermarkets, while in the MSFWs' home countries, mainstream acquisitioning practices might involve more informal vending structures (Crush and Young 2019). What we commonly perceive as formal practices also constitute the mainstream food acquisitioning practices for most EU citizens. For example, in the Netherlands, supermarkets account for 65–70% of the total volume of food consumed (Rol and Lambregts 2022), highlighting the dominant role of monetary infrastructure in Western food acquisitioning practices. In the Global South, practices such as gifting, bartering and buying from street vendors, considered informal in the Global North, may be mainstream and regarded as 'formal'. Thus, the classification of practices as formal or informal remains open to debate, as it may reflect a preference for a formal structure over an informal one and may risk perpetuating Western standardizing biases. Inspired by Gibson-Graham (2008) critique of the 'capitalocentrism' of economic practices, by situating informal food acquisitioning practices as opposed to, complementary to, or contained within the mainstream formality of practices in the EU, we risk failing to "imagine and construct realities in which we enact and construct rather than resist (or succumb to)" (p.619). It should be noted that informality is not solely a binary outcome of larger formal systems in the West, and its experience might differ from that in the home countries of MSFWs. Categorizing practices as formal or informal is an oversimplification of reality, although useful in understanding the underlying mechanisms and structures of practices. Hence, what we regard as 'formal' or 'informal' hinges on the viewer's perspective and can differ from the practitioner's experience.

Thirdly, and considering the above critique, the concept of informality has largely been overlooked in EU food policy strategies, despite its critical role in building resilience within the food system. The Farm to Fork strategy emphasizes the "… importance of a robust and resilient food system that functions in all circumstances and is capable of ensuring access to a sufficient supply of affordable food for citizens" (European Commission 2020). However, this emphasis on affordability indirectly promotes informal work by MSFWs, ultimately jeopardizing the food security of the region. To enhance the resilience of both the EU food system and the MSFWs working in the greenhouses where many of the fruits and vegetables for European supermarkets are harvested, it is crucial to redesign the EU's food system. This redesign must involve recognizing informality and including all actors across the food value chain in the pursuit of a more inclusive food system. The resilience of the EU food system is closely linked to that of its workers, both documented and undocumented. Furthermore, the significance of informality in food system transformation towards (re)localization is increasingly apparent (Anderson et al. 2017; Forster et al. 2015). Ukraine is an example of a country that heavily relies on informal food provisioning structures to acquire fresh fruits and vegetables (Gruzinska 2022; Mamanova 2023). Meanwhile Eastern European countries, including those in the EU, exhibit prevalent food practices that intersect with both formal and informal structures (Jehlička et al. 2020). Consequently, EU member states are recognizing the importance of informal food provisioning structures and promoting practices such as allotment gardens and other food acquisition methods, particularly in urban food systems (Bell et al. 2016; Magarini and Porecca 2019). This indicates a growing recognition of the role of informality in the EU food system and underscores the importance of looking at all parts of the food supply chain to acknowledge the potential beneficial role of informality. The diversity and co-existence of various food provisioning and acquisitioning practices have the potential to enhance the resilience of the entire food system and benefit all actors.

Conclusion

Understanding how MSFWs sustain and organize their own food security is crucial for strategies aimed at improving the resilience of the EU food system. The focus of this study

was deliberately put on MSFWs' routines and how these interact within the existing food system in Almería, as one of the first studies to explicitly look at lived realities around informality in the Global North. This study concludes that informality is both a source of diversity and resilience, as well as a vulnerability, and this complexity defies simple categorizations. On the one hand, the co-existence and even bundledness of formal, informal and hybrid structures may enhance the diversity and therefore resilience of a food system. MSFWs are not just seen as vulnerable populations but also entrepreneurs and active stakeholders—not only as consumers but also as producers and distributors—in the creation of dynamic food systems. On the other hand, relying on informal food acquisition practices can perpetuate existing inequalities, keeping MSFWs in the margins until they obtain a regularized status in the country. Short-term MSFWs, specifically, encounter challenges in exerting agency to transition into more formal structures due to their stronger reliance on informal channels.

Recognizing that informality in the context of MSFWs is a complex reality enhanced by migration processes, it is essential to examine its implications on the EU's food system resilience and the living conditions of migrant workers. When considering the situation of undocumented MSFWs, the question arises: is formalization the solution, or do informal circumstances offer resilience and affordability by allowing people to work and earn money, albeit unregularized? Future research should prioritize the definition of equitable and just approaches in developing inclusive and resilient food systems, taking into account the significance of often-overlooked informal networks in (re)localization efforts and (short) food supply chains.

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María Alonso Martínez holds a Masters' degree in Urban Environmental Management with a thesis at the Environmental Policy Group of Wageningen University & Research. She currently works on global food projects at ICLEI World Secretariat.

Anke Brons is Postdoctoral researcher at the Public Administration and Policy Group of Wageningen University & Research. Her research focuses on the governance of healthy and sustainable food consumption in the EU.

Sigrid Wertheim-Heck is Associate Professor global food system sustainability at the Environmental Policy Group of Wageningen University & Research. Her interest in global urban food security informs her research on the relationship between metropolitan development, food provisioning and food consumption, focusing on equitable access to sustainable, safe, and healthy foods.