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The interplay between structural and systemic vulnerability during the COVID-19 pandemic: migrant agricultural workers in informal settlements in Southern Italy

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Abstract

Migrants are at risk globally to the COVID-19 pandemic. Here, we focus on migrant agricultural workers in Capitanata, Apulia, Southern Italy. The concept of vulnerability provides our entry point. We distinguish between *structural* and *systemic* vulnerability to capture the interplay between the two during crisis situations. Structural vulnerability is limited to a certain system domain whereas systemic vulnerability has potential to create effects on a variety of interconnected systems. Informed by stakeholder interviews and documentary analysis, we elaborate a framework that accounts for how long-standing structural vulnerabilities have interacted with the COVID-19 crisis to produce adverse outcomes for migrant agricultural workers, while exposing the vulnerability of three linked systems - agricultural labour market, migration and asylum and healthcare. We take account, however, of pre-existing interventions which may mitigate the impact of systemic vulnerability and of the ‘policy window’ opened by cognisance of the possible systemic failures derived from the systemic vulnerability. While the article makes an early empirical contribution to understanding one group of migrants’ vulnerability during the pandemic and the ensuing governance responses, the analytical framework developed has applicability beyond this particular group of migrants and this particular crisis, and may provide a useful tool for further research.

Keywords: vulnerability, informal settlements, COVID-19, migrant agricultural workers, disaster studies

1. Introduction

Crises, such as the COVID-19 pandemic, never occur in a vacuum. They expose contextually-rooted vulnerabilities through which the emergency produces negative outcomes, which are unequally distributed. In this article, we focus on the migrant population because it has been identified as particularly vulnerable to the effects of the pandemic (ILO, 2020). The concept of vulnerability is widely discussed; however, given its multidimensional (social, political, economic, etc.), multiscale (individual, household, community, country, etc.) and multidisciplinary (gender studies, migration studies, disaster studies, etc.) nature, there is little consensus on its meaning. The current article discusses two types of vulnerability: *structural vulnerability* and *systemic vulnerability*. Whilst in the literature the two terms are often employed interchangeably, in this article, we differentiate them. *Structural vulnerability* emerges from “the political, economic, social and environmental conditions and institutions at national, regional and international levels that influence the overall environment in which individuals, families and communities are situated and which are typically relatively stable” (IOM 2019, 7). Here, we use the term to refer to underlying conditions and institutions that, separately or in interaction, influence negatively the ability of a given system to cope with a crisis. *Systemic vulnerability* is defined as “the tendency of a territorial element to suffer damage (usually functional) due to its interconnections with other elements of the same territorial system” (Pascale, Sdao and Sole 2010, 1576). In this article, we accentuate the stress on inter-dependency rather than on the territorial level. The concept of systemic vulnerability is hereby used to account for the interplays between the vulnerability of interconnected systems and, as a result, the capacity of latent vulnerability to propagate rapidly across systems during crises such as the pandemic. This view is aligned with the United Nations Office for Disaster Risk Reduction approach on understanding systemic risks, namely risks that emanate from the interconnectedness of complex networks of systems (UNDRR 2019).

Thus, structural vulnerability can be limited to a certain system domain, whereas systemic vulnerability has the potential to create ripple effects on a variety of interconnected systems, thereby impacting systems at global scale. The two manifest to different degrees in daily life: while effects of structural vulnerability - poverty, marginalisation, discrimination, squalor, etc., - are evident to anyone who wants to see them, the implications of systemic vulnerability are largely obscured in quotidian worlds. Raising awareness of systemic vulnerability is therefore difficult in routine times. Crises, by turning the latent into the manifest, trigger the interlinkages between structural and systemic weaknesses, surfacing the risk of failures at systemic level. The appreciation of this risk may lead to policy change, if the contextual conditions allow (Johnson, Tunstall and Penning-Rowsell 2005).

We take the case of migrant agricultural workers - a group which starkly captures the multifaceted positioning of migrants in the COVID-19 vulnerability nexus - to propose an analytical framework that accounts for the interplay between structural and systemic vulnerability in the event of a crisis. We use the area of Capitanata in Apulia, Southern Italy, as a case study due to the historical presence of migrants employed in agriculture and living in vulnerable conditions in informal

settlements around the city of Foggia. While both EU-citizen migrants and Third Country Nationals (TCN) work in the sector, our focus is on the latter. When the pandemic broke, TCNs were present in Capitanata, while EU migrants, predominantly seasonal workers from Romania and Bulgaria, had not yet arrived for the 2020 harvest, and the border closures introduced in response to the pandemic prevented their subsequent arrival. The case-study is employed to demonstrate how long-standing conditions of vulnerability at structural level have interacted with the COVID-19 crisis to produce adverse outcomes for migrant workers, while exposing the vulnerability of linked systems (for example, the agricultural labour market, migration and asylum and healthcare). Whilst not necessarily created by it, this interplay between structural and systemic vulnerability (and its potential impacts) is accentuated with the occurrence of a hazard that breaks the separation between systems (and between their respective vulnerabilities).

The article contributes to the vulnerability scholarship within migration studies, which is characterised by a dualism between micro/meso-level and macro-level conceptualisations of vulnerability, and which, as a result, does not acknowledge systemic vulnerability (and its relationship with structural vulnerability). Drawing on disaster studies, a field well-suited to researching crisis situations, to develop an analytical framework equipped to capture this relationship, we then apply it through a case-study of migrant agricultural workers in Southern Italy in the context of COVID-19. In doing so, the article makes an early empirical contribution to understanding this group's vulnerability during the pandemic and the ensuing governance responses. The framework, however, has applicability in migration studies beyond this particular group of migrants and this particular crisis, and as such it may provide a useful tool for further research.

2. Vulnerability during COVID-19: an analytical frame

Conceptual definitions of vulnerability differ across disciplines (Busetta et al. 2019), as well as within disciplines (Brown, Ecclestone, and Emmel 2017), and the field of migration studies is no exception. Accompanying its increasing use in migration governance, the concept of vulnerability has become widely debated in migration studies (Sözer 2019). One axis of debate is the emphasis to be placed on the situation/s associated with vulnerability *versus* the structural processes which generate and reproduce the social, political and economic conditions underpinning such situation/s (Chase 2016; Kofman 2019; Smith and Waite 2019). The former perspective entails varying positions on a continuum between micro and meso levels of analysis, while the latter takes a more macro-level orientation. As a result, the former seeks to identify factors – whether individual, organisational or contextual - which potentially protect from the negative effects of vulnerable situations; factors which may increase migrants' 'resilience' in the face of vulnerable situations (Bradby et al. 2019). In contrast, the latter perspective's focus on the upstream social, economic, political and structural drivers of vulnerability is associated with an emphasis on protective factors at a political level (Willen et al. 2017).

Both those perspectives are orientated on understanding migrants' vulnerabilities in routine times; as such, they are likely to need development and refinement when researching crisis situations. Here, we find it useful to turn to disaster studies. In the last decade, disaster studies has moved away from a disaster management perspective towards a focus on the management and reduction

of *disaster risk* (UNISDR 2015). This new perspective acknowledges that disaster risk is the result of the interaction between the hazard and the pre-existing vulnerabilities that are socially and politically constructed (Wisner et al. 2003; Kelman 2018). The investigation of the causes of vulnerabilities illuminates how these are grounded in mechanisms that permeate social, economic and political structures at global, national and local scales. So structural is this permeation that some scholars suggest to focus on the mechanisms of *disaster risk creation* (Oliver-Smith et al. 2016; Alexander 2018), namely on the mechanisms that produce and reproduce risk. In a review of disaster risk creation mechanisms, Lewis and Kelman (2012) for example, identified six vulnerability drivers, some of which are directly applicable to migrants, including discrimination, displacement and denial of access to resources.

The Press and Release (PAR) model (Wisner et al. 2003) is particularly useful to depict the nexus and interplay between pre-existing structural vulnerabilities and a hazard. It sheds light on the root causes and on the pressures that channel these causes into unsafe living conditions, paving the way for the creation of disaster risk. Although it remains mainly employed in relation to natural hazards, this model can easily be extended to global health threats (for example, Tsasis and Nirupama (2008) used it to describe the impact of the HIV pandemic), and to a particular population, such as migrant agricultural workers. Whilst the PAR model illuminates the vulnerabilities rooted in the social, economic and political context, it has a number of shortcomings. Firstly, it elides the factors that intervene to mitigate vulnerability (and therefore to reduce disaster risk). Secondly, it ignores the possible responses introduced to reduce the adverse effects of the interaction between the hazard and the pre-existing vulnerabilities. Finally, it does not capture the notion of systemic vulnerability, namely the mechanisms through which the vulnerabilities of single systems mutually reinforce and in which this interaction plays out at global level in a crisis situation.

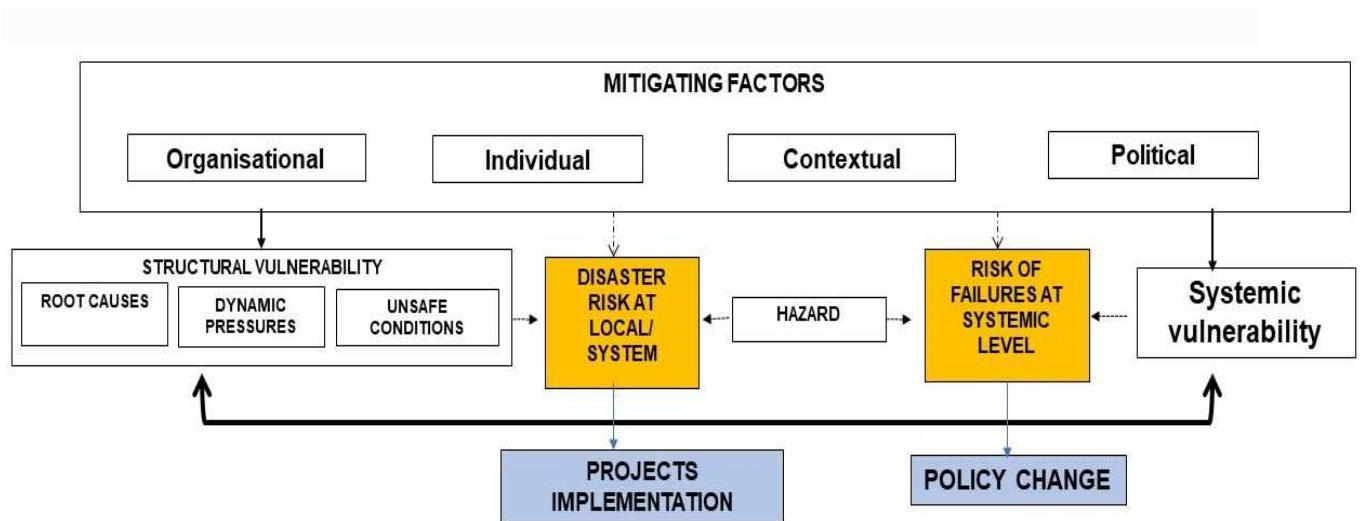
The analytical framework proposed in this article (Figure 1) adds three further layers to the PAR model to examine the impact of COVID-19 through the lens of vulnerability: 1) the mitigating factors, 2) possible responses to the emergence of the hazard, 3) the systemic vulnerability. Mitigating factors can relate to contextual, organisational, individual and political factors that, by chance, limit the adverse effects of a hazard, or to interventions purposely undertaken to reduce risk. Each of these factors has a different influential capability on structural and systemic vulnerabilities. For example, political interventions may reduce the adverse impacts of both structural and systemic vulnerability, whereas individual factors may mitigate the vulnerability at system-level rather than at a systemic one.

Although neglected in the PAR model, the term ‘systemic vulnerability’ is mentioned in disaster studies, but its differentiation from structural vulnerability is weakly explained (see, for example, the different use of the term ‘systemic’ in Pascale, Sdao and Sole (2010) and in Montz, Allen and Monitz (2011)). Recent publications by UN Office for Disaster Risk Reduction (UNDRR & CDEMA, 2020) note that COVID-19 has highlighted the systemic nature of risk and the need to study the cascading effects that the failure of a system has on the other linked systems (e.g. the effects of school closure do not manifest only in the realm of children’s education, but also in women’s employment opportunities).

In routine times, structural and systemic vulnerability are connected and mutually influencing: the combination between structural vulnerabilities at system level produces systemic vulnerability and, in turn, systemic vulnerability plays a key role in worsening the conditions underpinning structural vulnerability. However, these connections remain weak and latent because the potential effects of the vulnerability materialise in discrete systems. As long as the effects remain limited to a certain domain, these structural vulnerabilities are addressed with a response localised at the system level (e.g. through ad-hoc projects). When a hazard hits both single systems (structural level) and the interlinkages between them (systemic level), the connections between structural and systemic vulnerability become stronger and more evident. Thus, a compartmentalized response is no longer effective and the risk of ripple failures is likely without a policy change.

Disasters can open up a “policy window” for change, whereby “a problem is recognized, and policy communities and entrepreneurs can press for their ideas to form solutions to the problem” (Johnson, Tunstall and Penning-Rowsell, 2005, p. 573). However, whether this policy change materialises, and if it does, its characteristics, depend on a variety of contextual and behavioural factors, on the disaster framing, on the magnitude of the disaster and its impacts and on the media attention (Johnson et al. 2005; Giordono, Boudet and Gard-Murray 2020). Johnson et al. (2005) found that in the majority of the cases in which a policy change did happen, the disaster was the catalyst to accelerate policy ideas that were already under consideration. Likewise, Jeandesboz and Pallister-Wilkins (2016) found that policy responses to the so-called ‘Mediterranean migrant crisis’ built upon pre-existing cognitive frames and practices. Policy changes in response to disasters and crises are also often ‘instrumental’ and ‘ad hoc’ (i.e. they look to find a solution to the problem at stake), and do not consist of systemic policies with potential to embed deeper social and political change (Giordono et al. 2020; Jeandesboz and Pallister-Wilkins 2014).

Figure 1. Interplay between structural and systemic vulnerability: analytical framework



3. The production of structural vulnerability among migrant agricultural workers in Italy

In recent decades, Italy, likewise other Southern European countries, has transitioned from a country of mass net emigration to one of mass net immigration, with demand for agricultural labour representing a key driver (King 2000; Corrado, de Castro, and Perrotta 2017). The country's agricultural sector, particularly in the South, is now structurally dependent on a migrant labour force, widely recognised as exposed to structural vulnerability (Corrado 2018). Its structural vulnerability is multilayered and configured by a range of interconnected systems (Corrado 2018; Triandafyllidou and Bartolini 2020). In this article, we focus particularly on the vulnerability produced within three systems: the agricultural labour market, the migration and asylum system and the National Health System (NHS).

Turning firstly to the labour market, during the last 20 years many areas of intensive agricultural production in Southern Italy required an expanded labour force to meet their exponential growth and export orientations, at a time when the seasonality of the labour demand, and low salaries coupled with hard working conditions, was contributing to the withdrawal of Italian workers from the sector. The increased arrival of migrants from Sub-Saharan countries and from Romania and Bulgaria has provided a plentiful supply of replacement labour (Triandafyllidou and Bartolini 2020). The widespread and deeply entrenched informality in recruitment and employment practices within the agricultural sector renders it a relatively easy labour-market entry point for migrants (Corrado 2018), and its location within remote and underpopulated rural areas, acts as a 'safe haven' (Nori 2018), relatively free from state surveillance (Kilkey and Urzi 2017). The informality is double-edged, however, also producing vulnerability. Many migrants, both TCNs and EU citizens work without contracts, paid cash-in-hand on a commission basis. The labour market is managed by a gang master system known as 'caporalato'. This phenomenon has a long-standing tradition in Southern Italian agriculture, predating the arrival of migrants. The migrantisation of the labour force, however, has transformed this illegal practice into a full control over workers' lives, permeating their housing, transport, food supply and social relationships (Lo Casico and Perrotta 2019). Thus, while informal settlements furnish a self-regulated and somewhat protected environment of social interactions for these migrants (Howard and Forin 2019), they de facto represent spaces where extra-legal arrangements are common (Peano 2017), and accepted by both their inhabitants (migrant agricultural workers) and local institutions (for example, these dwellings do not comply with national regulations, lacking basic Water, Sanitation and Hygiene (WASH) infrastructures and safety certificates).

While informal employment practices produce a shared vulnerability for EU and TCN migrants, the latter's vulnerability is further shaped by Italy's migration and asylum systems, which accord many TCN agricultural workers irregular, insecure or partial legal status in respect of residency and work, and governs their entitlements to social welfare provisions, such as housing. Since 2011, linked to the economic crisis, the restrictionist stance, in existence since the Bossi-Fini Law in 2002 (Caponi and Cappiali 2018), towards the entry of labour migrants, has intensified, with quotas for seasonal workers almost halved (Corrado 2018). Over-staying is one consequence (Kilkey and Urzi 2017; Howard and Forin 2019), which combined with the absence since 2012 of any amnesty program for undocumented migrants (Corrado 2018), has placed over-stayers (and

other undocumented migrants) in a perpetual state of irregularity, exacerbating their exploitability. In the same period, and coinciding with the tightening of legal labour migration routes on the one hand, and rising conflict and instability in Mediterranean, Middle East and Sub-Saharan African countries on the other hand, Italy's agricultural sector has undergone a process of 'refugeeization' (Dines and Rigo 2015), whereby increasing numbers of asylum seekers and persons with a regular refugee, subsidiary or humanitarian status, supply the flexible and low-waged labour the sector depends on. Complex and dynamic rules govern these groups rights and entitlements around work, residence and welfare, and contribute to their vulnerable labour-market and living conditions (Bartolini, Mantanika and Triandafyllidou 2020; Corrado 2018; Lo Casico and Perrotta 2019; Triandafyllidou and Bartolini 2020). Corrado (2018) for example, highlights how various elements of the '*Decreto Salvini*' – a new Law-Decree adopted in 2018 – undermine the rights of some of these groups. The Laws-Decrees, n.113/2018 and n.53/2019, for example, barred asylum seekers from enrolling at municipal registry offices, with the risk of excluding them from a number of health and social services and rights. Moreover, it excluded asylum seekers and people eligible for humanitarian protection from the decentralized state reception system SPRAR (Sistema di Protezione per Richiedenti Asilo e Rifugiati), which supports migrants' social and labour inclusion, and restricted them to emergency reception centres (CAS - Centri di Accoglienza Straordinaria). CAS centres lack adequate support services for asylum seekers and are often located in rural areas, with few employment opportunities, aside from agriculture (Bartolini, Mantanika and Triandafyllidou 2020; Caponi and Cappiali 2018).

The conditions described above have implications also in terms of accessibility to healthcare services for migrant agricultural workers. Although the Italian legislation is advanced and inclusive in providing universal access to health care, including to undocumented foreign nationals, a number of factors limit the application of this right in practice. Migrant agricultural workers often live in remote rural areas with limited access to public transport and therefore to services in rural areas. Healthcare workers often lack basic knowledge of the rules governing migrants' access to the NHS. As a result, they can fail to assign the STP (Temporarily Present Foreigners) and the CSCS (European citizen without health assistance) codes. These are the tools for applying the right to health care to non-EU citizens irregularly present in the territory, as well as to EU citizens without health insurance. The STP code is issued by the local health authorities to TCNs without legal permits at the time of the request for health treatment or at the request of the TCN. This allows urgent outpatient and essential hospital treatment including preventive medical programs to safeguard individual and collective health (vaccination, maternity, infectious diseases prevention). In addition, healthcare workers often fail to assign the code X01, necessary to have free health services, making these services prohibitively expensive, and therefore inaccessible. Local healthcare services also lack personnel trained in cultural and linguistic mediation, making it more difficult for migrants, who often lack Italian-language capacity, to navigate the NHS's complex bureaucracy (Mammana et al. 2019). The organisation of the NHS complicates the procedures of registration with a GP for people not residing permanently in one place. Specifically, the NHS is regulated on a regional basis and it requires a person to prove residence address in order to be registered with a GP. This is a barrier for migrant agricultural workers who move frequently across the Italian territory and abroad, and who often live in informal accommodation and settlements.

As the pandemic has highlighted, the above mentioned systems intersect, with cumulative effects on vulnerability, in ways that vary depending on the particular group and territorial context. In the next section we move on to examine the specific case of TCN migrant agricultural workers living in Capitanata.

4. The study: migrant agricultural workers in the Capitanata area and vulnerability during COVID-19

4.1 The context

Capitanata is one of the most productive and labour intensive agricultural areas of Southern Italy, located in the Foggia province in the Apulia region (Perrotta 2016). The Capitanata plain experienced a great agricultural development in the last twenty years, and in this context the migrant labour force formed a viable alternative to mechanical harvesting, preventing (or possibly delaying) the use of harvesting machines by the growers. An estimated 40,000 migrants work in Capitanata during the winter season and 60,000 during the harvesting period in spring and summer (Placido Rizzotto Flai Cgil Observatory 2018). Conservative estimates suggest that over half of those migrants are working without any formal contract and one-third with contracts that under-declare the number of days worked (ibid.). In recent years increasing “humanitarian” management of migration overshadows the centrality of labour relations (Bartolini, Mantanika and Triandafyllidou 2020; Lo Casico and Perrotta 2019), while at the same time producing the “refugeeization” of the agricultural workforce (Dines and Rigo 2015). An increasing number of asylum seekers is employed in agriculture, and the Borgo Mezzanone CARA (the government centre for asylum seekers) has become a night shelter for workers employed in the local countryside during the peak season. According to Campesi (2015), the reception centre and the informal settlement are indistinguishable, as the whole site has become a main attraction for agricultural labourers looking for accommodation.

The migrant workers are mostly young males from Senegal, Gambia, Nigeria and Ghana, and EU citizens from Romania and Bulgaria. While the TCNs generally remain in the region in the winter, EU citizens mainly return to their home countries (CREA 2020). Among the TCNs, many have no regular residence status or are asylum seekers. The majority of migrant agricultural workers in Capitanata remain invisible in official statistics that only account for workers with regular residency status and contracts, despite the fact that they officially represent almost half of the workforce in Capitanata (CREA 2020). Both TCNs and Eastern European citizens inhabit large informal settlements or abandoned houses characterized by poor water and sanitation conditions (INTERSOS 2019a). The informal settlements are located in remote areas within the large rural 7,000 km² of the Capitanata plain, and tens of kilometers away from the main city of Foggia, with no public transport connections. The geographical marginalization of the informal settlements plays a key role in the migrants’ social exclusion as it constrains access to basic services.

4.2 Methods

The aspects described above have important implications for the legal, housing, work and health conditions of migrant agricultural workers in Capitanata, and in recent years have provoked the intervention of government agencies and NGOs. Employing our analytical framework on vulnerability (Figure 1), the research presented in this article examines how the pre-existing vulnerabilities stemming from those conditions, in interaction with the mitigating impact of such interventions, have shaped the response to the COVID-19 crisis. We also highlight how the crisis has stricken at the intersections between these vulnerabilities, thus creating risk of systemic failures at global scale. The data drawn on derive from the analysis of secondary sources (published reports, journal articles and unofficial documents provided by informed stakeholders), as well as from interviews with nine key informants in strategic roles within governmental and civil society organisations. Interviews were conducted over phone, skype or Webex in March and April 2020, during the height of the pandemic in Italy. Follow-up interviews were conducted with a sub-sample of these in September 2020 to update on the developments during the summer (harvest) period. Interview participants were identified through an extensive desk-based analysis of key actors and organisations involved in primarily health projects and interventions supporting migrants in the area of Capitanata, as well as through snowballing.

Table 1. Key informants interviewed

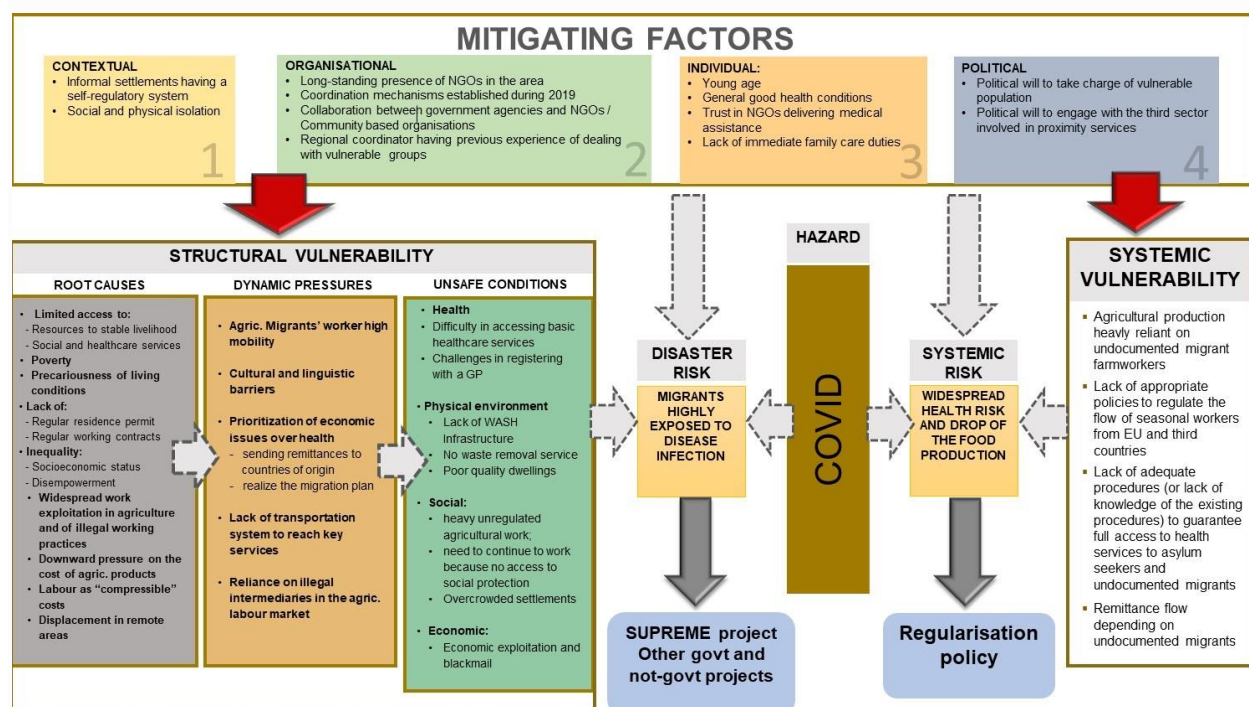
ORGANISATION	ROLE
INTERSOS	Chief Medical Officer
	Head of Migration Unit
ANOLF Puglia (National Association over the Frontiers)	President
CASA SANKARA	Founder
CUAMM (Doctors with Africa)	Chief Medical Officer
ARESS - Apulia Regional Council for Health and Society	Director
	Innovation Manager
	Health and Innovation officer

The interviews focused on the following topics: (i) conditions of migrants before the pandemic in terms of vulnerabilities and initiatives undertaken to redress them in recent years and; (ii) official and unofficial response to the COVID-19 crisis and adaptation strategies to the emergence of new operational needs. While interviews yielded mainly information about vulnerabilities and mitigating factors at structural level, information about the systemic vulnerability and its effects was derived from national and international reports and newspaper articles.

4.3 Results and discussion

Figure 2 populates the model presented in Figure 1 with information derived from the analysis of the study’s findings. The analytical framework illustrates the interplay between structural and systemic vulnerability in the context of the pandemic.

Figure 2: Understanding the interplay between structural and systemic vulnerability: migrant agricultural workers in Capitanata during Covid-19



Structural vulnerability and mitigating factors before COVID-19

In 2019 around ten local and international humanitarian organisations and associations active in Capitanata joined efforts to create the Coordinating Network of Proximity of the Capitanata, in order to address the vulnerable situation of migrant agricultural workers. Key actors in this initiative included INTERSOS, an NGO providing health assistance during major emergencies, the faith-based organisation CARITAS, Solidaunia, an NGO active in the international cooperation and aid sector and the Labour Unions-based associations of FLAI-CGIL and ANOLF-CISL, along with a number of local social cooperatives. The Network produced a Programmatic document (INTERSOS 2019b) that was formally presented to national and regional institutions and that outlined the precariousness of the social and legal conditions of migrants living in Capitanata.

The document highlighted migrants’ vulnerability to exploitation linked to the lack of legal protection both in terms of residency permits and of regular employment contracts. The root causes of these vulnerable conditions are the same highlighted by the international literature (see section 3). Linked to legal and labour market aspects, is the emergence of informal settlements near the

agricultural fields lacking essential WASH facilities and basic services. Concerning specifically the case of Capitanata, in recent years, several actions have been taken to disassemble these settlements, either by force or by inviting migrants to move to alternative accommodation. The Casa Sankara initiative, for example, has offered guest-house style accommodation, accompanied with a shuttle service to access the fields (Chiarelli 2016). The provision of transportation is important: fields cannot be reached by public transport and migrants often rely on unsafe transportation services offered by the illegal labour intermediaries also known as '*caporali*'. Since 2019, FAI CISL Foggia and ANOLF have also provided a shuttle service offering free transportation for migrants from the Foggia suburbs to the agricultural fields (CISL Puglia 2019). Several interviewees argued, however, that such interventions while aiming at improving conditions, could exacerbate some vulnerabilities, by for example, moving migrants away from their workplaces and social connections, thus making access to work opportunities more difficult. Moreover, according to the INTERSOS Chief Medical Officer, guest houses are not an appropriate solution for migrants who live in the area during all the year; rather, they should be included in longer-term integration strategies in the local social and economic fabric.

Health aspects were widely discussed by the interviewees. On a positive note, the migrant cohort consists of young adults in general good health. Moreover, informal settlements can be highly organised and offer migrants critical resources such as access to work opportunities and a network of contacts to rely on (Howard and Forin 2019). On the other hand, poor health conditions were largely linked to living and working conditions (INTEROS 2019a; MEDU 2019). Interviewees emphasised the need to orient existing health services to the migrants' specific needs. For example, given the remoteness and expanse of the area, in order to ensure full coverage, so-called 'proximity services', namely services that are delivered directly where the target population lives and works, are required. As a result, most of the NGOs have developed mobile clinics to deliver medical aid and health screenings directly in the informal settlements. Interviewees, as well as reports (INTEROS 2019a), also point to the linguistic and cultural barriers migrants confront in accessing the NHS, as described in section 3. To tackle the problem of proving residence in order to register with a GP, the San Severo Dioceses established an agreement in 2019 with the Foggia City Council allowing migrants to use the local churches as their formal residency address (IlFattoQuotidiano 2019).

The significant presence of humanitarian organisations (that usually operate in conflict zones or developing countries) is a feature of the humanitarian approach to migration management, which as noted above has accompanied the 'refugeeization' of the agricultural workforce. According to the Chief Medical Officer of INTEROS these interventions derived from the need to strengthen the capacity of the Italian health system to respond to the pressing needs of migrants. Indeed, the assistance provided by NGOs was initially thought of as complementary to official medical services: after the health screening, people at risk were directed to the Local Health Agency (LHA) to undergo specialised tests. All in all, initiatives undertaken by INTEROS and other organisations such as CUAMM in the past years have been geared toward filling the gaps of the NHS in respect to migrants' health assistance. Indeed, a report by INTEROS (2019a) outlined that the service provided by the LHA proved ineffective and non-inclusive due to the lack of transportation links and of cultural and linguistic mediation. Thus, interviewees argued that the ongoing presence of these organisations in the area made them a trustworthy interlocutor for

migrants to report their health problems. In their view, the construction of a relationship based on trust and the use of cultural mediators was key for the delivery of effective health assistance.

As noted above, the challenges posed by the large presence of irregular migrant workers in agriculture is shared among several Southern Italian regions, and following pressures from local and national associations, governmental institutions have also begun to intervene. The 'Piu SUPREME' project (hereafter SUPREME project) was founded in 2019 to promote a systemic intervention to migrants' integration in agricultural areas in several Southern Italian regions, including Apulia. The project, led by the Italian Ministry of Labour and Social Policies, included as lead assistants the Regional Councils of Apulia, Sicily, Campania, Calabria and Basilicata. The key actions of the project encompassed the activation of a system of actors and resources (including competencies) to counter irregular work and exploitation and to strengthen the institutional capacities to reach out to and engage migrants in integration pathways by also ensuring access to key services on the territory and empowering migrant communities. In Capitanata, the effort was led by the Regional Authority for Society and Health (ARESS) and included the LHA of Foggia, CUAMM, Consorzio Nova (a consortium of associations promoting social innovation), as well as INTERSOS and Solidaunia (already part of the Coordinating Network of Proximity). The creation of the Network of Proximity of Capitanata and the establishment of the project SUPREME in 2019 went toward the recognition of the need to coordinate the myriad of initiatives and actors that have been working in the area mostly in an uncoordinated fashion. Although they tried to address migrants' vulnerabilities in a holistic manner (e.g. by developing interventions in different sectors such as healthcare, labour rights, housing etc.), these projects remained focused at the local level and failed to deal structurally with the elements underpinning the vulnerability and the interlinks between them.

Mitigating the impact of COVID-19 among migrant agricultural workers: responses and adaptation strategies

SUPREME was due to begin in mid-2020, but the COVID-19 outbreak accelerated the kick-off and set in motion a series of interventions to safeguard the health of migrant workers living in the informal settlements. These were coordinated by ARESS and implemented by various NGOs in the health sector (that already composed the original SUPREME team), with the collaboration of the LHA of Foggia. According to the ARESS Director and the Innovation Manager, ARESS' main function was to coordinate the implementation of the initiatives, ensuring that health assistance and monitoring were delivered throughout Capitanata, including in the informal settlements. Other interviewees have echoed the importance of the enforcement of this coordination mechanism to avoid gaps in interventions. ARESS' work also enabled the interface between the aid activities delivered by associations and NGOs and the services of the LHA. The LHA had, in turn, already initiated, at the end of 2019, a mobile clinic service, which was however offered only for 12 hours per week. According to the ARESS Officer for Health and Innovation, SUPREME allowed this intervention to be scaled up and coupled with the efforts of the organisations already present in the territory.

For many organisations operating in the area, the provision of medical assistance in response to the outbreak was seen as a mere continuation of the activities of health assistance and monitoring that they were already implementing before the outbreak, so they managed to adapt rapidly to the new situation. For example, INTERSOS has as its core mission the provision of medical aid in emergency scenarios, meaning that officers found themselves operating in a familiar environment. Similarly, CUAMM had delivered medical care in the informal settlements since 2015 and it was already considered a trusted interlocutor by migrants for health issues. The key objective of all the interventions was to contain the possibility of a COVID-19 outbreak, cognisant that it would take only one case to make the spread uncontrollable in these settlements. The main concerns of health operators relate to the chronic vulnerabilities of these migrants, in terms of legal status, living conditions and pre-existing medical problems that expose this population to heightened risks, not only health-related. For example, linguistic and cultural barriers may prevent migrants from understanding the various decrees issued by national and regional authorities regarding movement restrictions; the lack of regular working contracts and/or residency permits may hamper the access to official health services (for example a consultation with the GP or specialised visits in medical clinics), or reduce work opportunities (due to the problems of demonstrating that they move for work reasons – one of the reasons movement outside one’s residence was permitted during lockdown) (Palumbo and Corrado 2020). Against this framework, it became evident that the vulnerabilities created within the single systems are strongly interrelated and mutually reinforcing.

According to some interviewees, social isolation and segregation, which is usually regarded as a vulnerability driver, has most likely protected migrants living in these rural informal settlements from the infection. Indeed, in the opinion of the INTERSOS Chief Medical officer, the settlement at higher risk is the one of Borgo Mezzanone because it is the most well connected to the city of Foggia. *“This virus has followed an unusual pattern –says the INTERSOS Chief Medical Officer - it started from the business people travelling across continents, it has now moved to the middle class and it will hit the poorest last”*. The presence of healthy young adults reduces the risks associated with older age and of living in multigenerational households. Moreover, informal settlements represent self-organising environments, whose resources can be harnessed to confront the crisis. The core problem rests on the impossibility to apply self-isolation and basic hygiene measures in the overcrowded and unequipped setting of informal settlements.

On a positive note, the Medical Officers of CUAMM and INTERSOS highlighted that the crisis boosted many interventions that were previously lagging behind due to bureaucratic issues, such as the implementation of a waste removal service and the instalment of water dispensers for handwashing, as well as the distribution of protective devices (for example, masks and soaps) in the informal settlements. Also, agreements were established for the re-accommodation of migrants in protected structures to spend the quarantine period in case of suspected or confirmed COVID-19 infection. Moreover, migrants that were housed in tents within the Casa Sankara settlements were finally moved into mobile housing units in the Foltore locality. Based on the accounts of the Chief Medical Officers of CUAMM and INTERSOS who are at the frontline of the interventions, migrants have responded positively to informational campaigns and to the invitation to embrace protective measures. However, according to the Founder of Casa Sankara, it has not been possible to maintain social distancing in common areas, such as canteens, even in formal settlements. Moreover, the prioritisation of economic aspects over health, due to for example, the requirement

to remit, may prevent migrants seeking medical assistance in the case of emergence of COVID-19-related symptoms.

The interviewees noted that the path to respond to the emergency effectively is still a long one though. In the short term, urgent measures need to be undertaken for the relocation of migrants in decent dwellings and new housing sites or for the provision of water and sanitation instalments. As outlined by the INTERSOS Medical Officer, relocation can be beneficial as long as it takes into consideration migrants' needs and avoids creating new vulnerabilities (for example, by placing people in overcrowded environments). In the medium term, interviewees stressed the need to strengthen proximity services to deliver aid at the informal settlements and coordination mechanisms. In the longer term, the assignment of a legal residency permit to migrant workers in the agricultural sector, and the strengthening of the collaboration between government agencies, service providers and local associations and organisations, are advocated by many as the only real solutions for tackling the vulnerabilities related to health, housing and working conditions in the migrant population and reducing the impact of the crisis. In sum, as outlined by ARESS Officer for Innovation and Health, there is the need to move away from a project-based and emergency-driven logic, toward interventions that tackle the intersections between vulnerabilities on a permanent basis. Whilst projects such as SUPREME made an attempt in this direction, they remain ill-equipped to deal with the vulnerabilities in a structural or systemic manner.

In September, a second round of interviews with CSOs working on health interventions in Capitanata (INTEROS, Solidaunia, CUAM) was completed to explore the impact of the pandemic during summer 2020. The interviewees declared that the prevention activities had a role in mitigating/limiting the infection among the agricultural workers: only two to three cases of COVID-19 were registered in the area. They were monitored by CSOs' mobile units, and rapidly transferred to quarantine facilities. The LHA also activated a health care unit in the informal settlement of Borgo Mezzanone to test persons with symptoms and trace potentially infected agricultural workers.

Systemic vulnerability

The COVID-19 crisis has exposed the vulnerability of some groups of essential workers, including agricultural workers, as well as of the whole agricultural system especially in European countries and North America (Ryerson University 2020). As EU countries closed their borders to non-citizens and to seasonal workers during the pandemic, the contribution of migrant labour to food production was sharply illuminated along with their structural vulnerability (ILO 2020). In Southern European countries, the key role of migrants in the 'locked-down agriculture' emerged as a major political issue due to the early severe effects of the pandemic during March 2020, and to the impending harvest season being suddenly left without the labour of EU seasonal workers due to mobility restrictions (CREA 2020b). In April 2020, a similar debate emerged in the United Kingdom, provoking a call for a 'land army' - evoking the Second World War - of domestic workers to replace the estimated 68,000 seasonal migrant workers on which the UK relies every year for harvesting (Barbulescu and Vargas-Silva 2020).

The structural vulnerability of migrant agricultural workers gained centre-stage for two reasons. The first is that they became framed as "essential workers", fighting at the rear to ensure vital food

supplies for European societies during the two months of lockdown. The second reason is epidemiological: because their living and working conditions make them less able to practise social distancing and to respect the basic dictates on sanitation, they suddenly became a health-risk factor for the entire society. The same living and social conditions that were prior to COVID-19 accepted, albeit in violation of human dignity, in Europe's rural areas, became no longer tolerable in the light of the pandemic. The evidence of the possibility that the consequences of this vulnerability moved beyond the local/immediate level and propagated across systems (for example, by jeopardising national food security and national health systems), spurred the political debate.

In Italy the appreciation of this risk boosted a policy change with the introduction of a mass temporary regularisation programme targeted at undocumented migrant agricultural workers and one other group of 'essential workers' - carers. At the time of its parliamentary approval in March 2020, critics highlighted the limited duration of the regularisation - six months, and the fact that the policy excluded many undocumented migrants (D'Ignoti 2020; Palumbo 2020). The regularisation and its application procedures contained significant shortcomings which affected its impact in the agricultural sector. The lump sum cost to employers of regularising an employment relationship (€500) risked being offloaded onto the workers, and there were reports of an illegal market in fake contracts which cost up to €5,000. In addition, the conditions required to apply significantly limit its scope, leaving numerous migrants in situations of irregularity and precariousness (Palumbo and Corrado 2020).

Indeed, data up to 15th of August 2020 show that the regularisation had a relatively low take-up within the agricultural sector: of the 207,500 total requests for regularisation, only around 30,700 were from agricultural workers (Bonifazi and Strozza 2020). The main Italian agricultural trade unions (FLAI CGIL-CISL-USB), which had criticised the regularisation from its origins, pointed to its poor effectiveness. Several strikes were organised during the summer 2020 by USB and Lega Braccianti, a new migrant association promoted by trade unionist Aboubakar Soumahoro, to bring to public attention the poor living and working conditions of agricultural workers.

The regularisation was already one of the options on the table prior to COVID-19. In this respect the policy window opened by the crisis was seized (probably also thanks to the devastating impact of the pandemic and the media coverage). This response was an instrumental one, however, to solve the immediate problem. Moreover, the design of the regularisation scheme - limited to certain categories of workers and highly conditional - reflected the increasingly restrictive approach to regularisation that emerged in the context of the economic crisis and which characterised the 2009 and 2012 schemes, in marked contrast to the more expansive approach to regularisation under the 2002 Bossi-Fini Law, which resulted in a total of around 650,000 regularised migrants (Caponi and Cappiali 2018). The emergency exposed the limits and weaknesses of the agricultural system, as well as of the migration and asylum policy, and more in general of the NHS. Thus, only a policy change that addresses the structural vulnerabilities of these systems, as well as the vulnerabilities that are created in the interaction among them will be able to yield effective, long-term results.

5. Conclusions

Taking the Capitanata area as a case study, we developed an analytical framework designed to capture the relationship between structural and systemic vulnerability in a crisis situation. The conditions of chronic vulnerability in which migrants are forced to live and work render them particularly exposed to the direct and indirect consequences of COVID-19 (Guadagno 2020). Mobility and work constraints induced by the crisis have exacerbated pre-existing conditions and further reduced the ability of these migrants to cope with the pandemic (UNDRR 2020; Guadagno 2020; Palumbo and Corrado 2020). Mitigating the effects of these enduring vulnerabilities are some important protective factors, which are present at individual, contextual, organisational and political level. Above all, pre-existing interventions to address vulnerabilities provide a critical protective factor. The SUPREME project exemplified the appreciation by the political level of the need to take charge of the social and health assistance of vulnerable groups as a concerted effort. This laid the groundwork for a coordinated response during the pandemic. Indeed, since its outbreak, regional and local authorities in Apulia have been mindful of the need to minimise the diffusion of the virus among migrant agricultural workers, initiating a set of interventions. Collaboration with NGOs has been vital for the enforcing of risk communication campaigns, health screenings and prompt testing of suspected cases, as well as for the distribution of protective and sanitary items. These have been effective, however, precisely because of the long-standing presence of NGOs in the area delivering medical aid, legal and other support. This presence and the use of cultural mediators to overcome linguistic and cultural barriers facilitated the creation of a relationship based on trust with migrant communities. Building trust and engaging with affected communities (for example, through the mediation of community leaders) is a necessary condition for risk messages to permeate (WHO 2017). Moreover, NGOs and government agencies were able to adapt their services to the new demands and needs, partly because most of them were already health-related or performed by organisations accustomed to working in humanitarian settings. Overall, it appears that precedent interventions have demonstrated resilient qualities of flexibility, resourcefulness and reflectiveness that have contributed to the overall effectiveness of the response system. In past years, these interventions have represented forms of 'resistance to risk creation' (Wisner and Lavell 2017) that by addressing vulnerability, have enhanced response and resilience capacities when the crisis hit. Indeed, by compensating the shortcomings of the NHS described in the above sections, they arguably prevented the propagation of the vulnerability at a wider scale during the pandemic.

It is interesting here to note the double-sided and contradictory role of the State in relation to structural and systemic vulnerability. On the one hand the vulnerabilities are created by a political failure of governing appropriately issues in key societal systems such as migration, public health and agri-food production. On the other hand, government agencies have put in place several countermeasures to mitigate the conditions that underpin these vulnerabilities. Above all, most of these interventions have remained at the structural level without really addressing the interrelations between vulnerabilities. The COVID-19 crisis has exposed these interrelations, thus making people and policymakers cognisant of the possible devastating effects of several ripple failures across systems. In order to address the risk of failures at systemic level, it becomes vital to foresee policy instruments that address vulnerability at both structural and systematic level and tap into the resources and lessons that have been built in the past.

Disclosure statement

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