From Farmer to Consumer: Exploring Proximity and Direct Selling Initiatives of Organic Farmers of Delhi NCR During COVID-19

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Sohini BHATTACHARJEE[1]

Abstract

The pandemic shed light on the already glaring shortcomings of our elongated conventional food system. Some seek to address the complexity and distance introduced into the food system between production and consumption by developing and participating in alternative food networks. Among them are organic farmers exploring direct selling initiatives to reduce the degree of separation from the end consumer, especially urban consumers. This paper is focused on this section of organic food producers located in Delhi NCR (National Capital Region) in India who are actively seeking participation in short food supply chains. Drawing on data collected through interviews with organic food producers, the paper highlights how they were affected by the COVID-19 pandemic. It shows the advantages and challenges of relying on direct selling against the backdrop of a pandemic and government-mandated social distancing. The discussion is situated at the intersection of literature on alternative food networks (AFNs), short food supply chains (SFSCs), and proximity. The paper examines the critical role of geographical and relational proximity within short food supply chains of value-laden AFN products as the pandemic revealed its own set of challenges to the agri-food supply chain.

[1] Jawaharlal Nehru University, India

Corresponding author: Sohini Bhattacharjee sohini.bhattacharjee@hotmail.com

Bibliographical notes

Sohini Bhattacharjee is presently pursuing her Ph.D. research on organic food networks in Delhi NCR at Jawaharlal Nehru University. Her research explores the emerging and evolving networks within the organic food system of a rural-urban planning region in the Global South and its alterity. Her research interest lies in the area of food systems, alternative food networks, agrarian studies, and the digitalization of food.

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Introduction

Shocks and stressors like COVID-19 have the potential to completely disrupt and introduce insecurities into the food systems of low- and middle-income countries such as India (Bene, 2020). COVID-19 introduced a complex crisis in the food system which impacted the populace asymmetrically and on multiple fronts (see Clapp and Moseley, 2020). The burden on the agri-food supply chain was especially concerning as one of the defining characteristics of the conventional food system – the distance between the sites of production and those of consumption – became its most significant liability.

As agrifood value chains become longer, with an increasing number of intermediaries, they become highly susceptible to disruptions such as pandemics (Minten et al., 2023). The smooth functioning of complex logistics is at the centre of its optimal performance. Low- and middle-income countries like India are in a "transitional" phase of the agri-food supply chain where traditional and modern retail co-exist, and the distance between production and consumption is increasing (McMullough, Pingali & Stamoulis, 2008; Reardon et al., 2020). The abruptness of the first lockdown in India had wide-ranging effects on the agri-food system. The initial phase of lockdown restrictions – the first 21 days (25th March to 15th April 2020) – affected the Indian agri-food supply chain due to movement restrictions. They were affected first by mobility restrictions, followed by declining demand due to the economic downturn, and lastly, price inflation (Minten et al., 2023). Government assessment and interventions at the central and state levels regarding the agriculture and allied sectors throughout the pandemic prevented a complete collapse of the food system. However, its rippling effect was felt over a sustained period. The sector's resilience was amplified due to the nation's significant reliance on regional and local food supply chains to satisfy food demand.

As the mainstream food supply chain struggled under new (and old) challenges, the potential of alternative food networks such as short food-supply chains (SFSCs) and local food systems came to the foreground (Yousefian et al., 2021). They presented possibilities to manoeuvre through the hurdles by providing alternative pathways of resilience and security (Béné, 2020; Blay-Palmer et al., 2020; Thilmany et al., 2020). The flexibility afforded within the space of these diverse (AFNs), with their shorter supply chains and fewer variables and operations, renders their potential an essential space of exploration in the backdrop of the pandemic.

The organic food supply chain is one such space for the realisation of alterity, despite growing concerns regarding its conventionalisation and mainstreaming (Beus & Dunlap, 1990; Buck et al., 1997; Guthman, 2004; Goodman, DuPuis & Goodman, 2012). Demand for organic food in the domestic market in India has witnessed steady growth in the recent past, especially among urban dwellers (Osswald and Menon, 2013; Erler, Keck and Dittrich, 2020; Erler and Dittrich, 2020). According to Osswald and Menon (2013), the organic food supply chain in India is characterised by shorter networks compared to the conventional food supply chain, which can provide critical insights into the operations and viability of 'stronger' alternative food networks (Watts, Ilbery and Maye, 2005).[1]

In India, these newly emergent AFNs are connected to specific socio-cultural, economic and policy contexts that have given them their particular form. Their emergence has been a result of the active engagement of the producers to exercise their agency and seek a way outside of the conventional, despite myriad challenges. Without much governmental support, producers are navigating their way to building new food relations by mobilising proximity. During the pandemic, they had to navigate the challenges posed to SFSCs based on direct and distanced relations by dynamically adapting, innovating and, most importantly, being flexible in their localised responses to it.

This paper is an attempt to highlight the experience of organic food producers from the urban-rural planning

[1] According to Watts, Ilbery and Maye (2005), 'weaker' AFNs represent initiatives that rely specifically on the product's alternative quality (e.g. organic products), while 'stronger' AFNs focus on the network within which the products circulate, not simply the product qualities (e.g. organic direct-selling networks).

region of Delhi NCR, intending to draw the oft-neglected Global South, and particularly India, into AFN literature (Abrahams, 2006; Freidberg and Goldstein, 2011; Moustier, 2017; Bopp; 2020; Erler and Dittrich, 2020). The first section outlines the impact of the pandemic on the Indian agri-food supply chain. The next section sets out the theoretical underpinnings of the paper with a specific focus on the concepts of alternative food networks (AFNs), short food supply chains (SFSCs) and proximity. The third section outlines the methodology adopted for the research and gives a brief description of the field. The fourth and fifth sections draw on fieldwork data to explain why organic farmers participate in SFSCs and how they were affected by the pandemic. The next section discusses the role, for the respondents, of geographical and relational proximity in organic direct-selling initiatives in the context of COVID-19. The concluding section highlights the adaptive capacity of actors within AFNs as alternatives to the mainstream during moments of systemic shocks, and the role of proximity in both agri-food chains.

Covid-19 and the Conventional Agri-Food Supply Chain in India

The Indian subcontinent went into one of the world's most stringent nationwide lockdowns on 25th March 2020 for a 21-day period (later extended in four phases till 31st May 2020) (PIB, 2020).[2] The initial phase of the lockdown led to adverse impacts across sectors, including the agricultural sector. In 2019-2020, the agricultural and allied sector's percentage share in the Gross Value Added (GVA) of India, a largely agrarian country, stood at 17.8% (PIB, 2021), a declining yet substantial figure. Agriculture moreover employs the lion's share of the nation's total workforce: 54.6% (Census 2011).

The potential risk to the sector during the lockdown was amplified as its implementation coincided with the harvest of the rabi (winter) crop: wheat, the second most important crop grown in the country. In 2019-2020, 313.57 lakh hectares were under wheat production (GoI, 2023). Chickpeas, the main pulse crop, and mustard, the second largest oilseed crop, are also grown during the rabi season, along with other vegetables and fruits. Recognising the importance of agriculture and allied sectors in the functioning of the economy, the Government of India announced the exemption of farming operations and support services of the agricultural sector from lockdown regulations on 27th March 2020 (Narayanan & Saha, 2020). Further relaxations for the sector were announced over time as supply chain and operational issues came to the fore.[3]

Several challenges plagued the agri-food supply chain in India during the initial phase.[4] Centralised and state government interventions offered a safety net to the agri-food sector throughout the pandemic which held the supply chains together, especially after the initial upheaval (Potham et al., 2020). However, disruptions were largely attributed to the lack of coordination between the central and state government administrations, and the lack of percolation of information across the administrative chain (Narayanan & Saha, 2020). The disruption of the agri-food supply chain could be felt across the food system as domestic supply chains are responsible for about 80% (in terms of value) of the food consumed in the country (Reardon et al., 2020). Furthermore, 92% of food is purchased, making the population heavily reliant on a well-functioning food chain (ibid).

The agri-food supply chains in India are long rural-urban chains that depend predominantly on perishable food supply chains (McCullough et al., 2008). Several marketing channels and platforms have been made available to primary producers through reforms in agricultural marketing policies (Pingali, 2006; Reardon & Minten, 2011; Pingali et al., 2019). Direct purchasing, contract farming and establishment of private wholesale yards have been provisioned under government regulations (Singh, 2018). However, the public wholesale agricultural markets or mandis, established under the Agricultural Produce Market Committee (APMC) Act,[5]

[2] Based on the 'Covid-19 Stringency Index' of the Oxford Covid-19 Government Response Tracker.

[3] See Narayanan and Saha (2020) for a list of important notifications on the agricultural and allied sectors from the Government of India.

[4] See Abhishek et al., 2020; NAAS, 2020; Narayanan & Saha, 2020; Rawal, et al., 2020; Reardon et al. 2020; Priyadarshini & Abhilash, 2021; Jaacks et al., 2021; Lowe, Nadhanael & Roth, 2021.

[5] Agricultural marketing is a State Subject which means that the APMC Model Act, 2003 can be adopted, modified, and even re-

continue to play a significant role in agricultural marketing, and food producers in India continue to channel their produce through them (Minten et al., 2009; Reardon & Minten, 2011; Pingali et al., 2019).

In the initial stages, the closure of mandis led to a reliance on local village markets where price discovery and competitive buying were improbable (Abhishek et al., 2020). Even though the mandis were made exempt from the lockdown restrictions on 27th March 2020, they did not resume normal functioning for a period after that (Rawal et al., 2020; Singh, 2020). There was a visible deceleration and decline in arrivals of the most important non-perishable rabi crops (wheat, mustard and chickpea) in the mandis during the initial 21 days of the lockdown as most functional markets were dealing predominantly in perishable agricultural commodities (Rawal & Verma, 2020). There was an uptake in the volume of arrivals after the initial phase with some lingering effects (Rawal & Verma, 2020; Lowe, Nadhanael & Roth, 2021). Wholesale prices initially rose by 8% but subsequently resumed a downward trend (Lowe, Nadhanael & Roth, 2021).

Mahajan and Tomar (2020) also observe that the further the production zone from the retail centres (cities) or mandis, the higher the likelihood of the arrival of agricultural commodities declining during the pandemic. The mandis in India are dependent on the physical presence of actors (producers, wholesalers, retailers, commission agents) and are largely cash-based (Varshney et al., 2021). The imposition of stringent rules and regulations to abide by social distancing norms further complicated the arrival and selling of produce in the mandis (Rawal et al., 2020). The infrastructural inadequacies of the mandis made them a breeding ground for the virus transmission, which led to several mandi closures (ibid).

While the impact of COVID-19 on the mainstream food supply chain has been explored at length in the case of India, alternative food networks like direct-to-consumer food supply chains have been largely ignored (Yousefian, Devy, Geetha and Dittrich, 2021). Today, organic farming and food systems are witnessing a renewed push from civil society, the government, and farmers in India due to the deleterious impact of the conventional food system (Narayanan, 2005; Alvares, 2014; Khurana and Kumar, 2020). Organic food producers participate in both conventional food supply chains and alternative food networks, moving fluidly between them. The next section outlines the key concepts of alternative food networks, short food supply chains, and proximity, to anchor the fieldwork within the existing literature.

Theoretical Review

Alternative Food Networks (AFNs)

Agri-food scholars have increasingly taken note of the emerging alternative initiatives within the food system that are reconstructing the narrative of a homogenised and singularly globalised conventional agri-food system (Murdoch, Marsden and Banks, 2000). The conventional food system is largely characterised as one based on intensive monocultural agriculture with heavy reliance on chemical inputs, emphasis on quantity over quality, producing generic and standardised products, and a long food supply chain that disconnects producers and consumers (Beus and Dunlap, 1990; Murdoch et al., 2000; Kneafsey et al., 2008; Maye and Kirwan, 2010). Alternatives are constructed as oppositional to one or more of these characteristics (Sonnino and Marsden, 2006; Maye and Kirwan, 2010).

The theoretical framework of 'alternative food networks' has shed light on attempts to reconfigure relationships between the actors at the two ends of the food supply chain: the producers, and the consumers

jected by individual states (see Rao, Sutradhar and Reardon, 2017 for state-wise adoption of agricultural marketing reforms till 2016). The states and union territories of Kerala, Bihar, Manipur, Andaman and Nicobar, Daman and Diu, and Dadra and Nagar Haveli have not adopted or scrapped the APMC Act. The Central Government, through the Model Agriculture Produce and Livestock Marketing (Promotion and Facilitation) Act, 2017 (APML Act, 2017), has further proposed reforms by addressing the monopoly in agriculture marketing, and offering alternative marketing channels to producers for better price realisation.

(Venn et al., 2006). The alterity of these networks lies in their potential to 're-socialise' and 're-spatialise' food (Renting, Marsden and Banks, 2003) by embedding it within natural, spatial and social contexts (Murdoch et al., 2000). Such specialised and/or dedicated products (ibid) are value-laden and distinguishable from their mainstream counterparts (Goodman and Goodman, 2009). They include organic, Fair Trade, artisanal, regional, and qualitatively differentiated produce that represents a 'quality turn' in the food system (Goodman, 2004; Ilbery and Maye, 2005).

AFNs thus combine the dual characteristic of "dis-embedding from the conventional food industry, as much as they are as a process of re-embedding food into renewed social and economic relations" (Dubois, 2018: 2). This vast body of existing and emerging literature, overwhelmingly studied in the context of the Global North, consistently highlights the 'quality' of food and relations around it (Murdoch et al., 2000; Whatmore, Stassart and Renting 2003; Abrahams, 2006; Venn et al., 2006; Kneafsey et al., 2008; Goodman and Goodman, 2009; Friedberg and Goldstein, 2011; Goodman, DuPuis and Goodman, 2012; Kneafsey et al., 2013; Dubois, 2018).

Abrahams (2006) contends that the AFNs in the Global North and South, while both opposing the conventional food supply systems, are fundamentally different. The development and form of AFNs depend largely on the institutional, regional, cultural, and political context of their emergence (Abrahams, 2006; Friedberg and Goldstein, 2011; Bopp, 2020). AFNs in the South emerged as a "grassroots development imperative which includes survivalist enterprise, accessible food networks for the urban poor and cultural food networks for diverse communities." (Abrahams, 2006: 23). They represent a continuation of practices that have co-existed alongside the industrial turn of the agri-food system and modernising supply chains due to rapid urbanisation, dietary transformation and diversification, economic liberalisation and the entrance of foreign direct investment (Pingali, 2006; Bopp, 2020).

The Indian subcontinent, with its continuance of traditional agriculture and indigenous knowledge systems, spirituality, smallholder structure, and socio-culturally context-specific notions of sustainability, has been argued to provide a strong foundation for the development of AFNs (Bopp, 2020; Erler and Dittrich, 2020). The largely farmer- and civil society-led organic farming movement in India (Alvares, 2014) has sought to find a way out of the exploitative agri-food supply chain that appropriates the value of food away from the farmers to intermediaries and agribusinesses. However, the entrance of intermediaries in the form of NGOs and organisations can disrupt the potential of AFNs to assist producers in improving their livelihood, due to their own vested interests, objectives, and belief systems regarding their functioning (Freidberg and Goldstein, 2011; Erler and Dittrich, 2020). Erler and Dittrich's (2020) study in India reflected how "unreflexive and defensive traditionalism" within these networks can impede the cause of livelihood improvement for farmers. Therefore, farmers are developing their own direct food supply chains that cater directly to the end consumer (Osswald and Menon, 2013).

Establishing direct connections between producers and consumers has been viewed as a means to reform the agri-food supply chains in India and other developing countries (Chand, 2012; Moustier and Renting, 2015). The reliance of producers and consumers on single points of approach to the food supply chain increases their vulnerability to disruptions and shocks such as the pandemic (Yousefian, Devy, Geetha, and Dittrich, 2021). The development of new short food-supply chains has emerged as an alternative for producers and consumers in the city regions of developing countries (Moustier and Renting, 2015), often facilitated through institutional innovations as in the case of India (Chebrolu and Dutta, 2021). Direct marketing initiatives are one such form of SFSC that increased marginally during the pandemic as Resident Welfare Associations (RWAs), farmer producer organisations (FPOs), NGOs and government agencies facilitated connections between producers and consumers in Bengaluru, India (Yousefian et al., 2021).

Short Food Supply Chains (SFSCs)

The narrower concept of the short food supply chain (SFSC) has made critical contributions to developing a more focused understanding of AFNs and the farm-to-fork journey of AFN products (Marsden et al., 2000; Renting et al., 2003). According to Maye and Kirwan (2010: 3), "The key characteristic of SFSCs is that foods reach the final consumer having been transmitted through a supply chain 'embedded' with value-laden information concerning the mode of production, provenance and distinctive quality assets of the product." At their core, SFSCs seek to reorganise the food chain with reduced or, ideally, no intermediaries, and thus to build 'thick' and 'reconnected' producer-consumer relationships (Whatmore et al., 2003; Renting et al., 2003; Kneafsey et al, 2013). The relationship between producer and consumer, rather than the product, is highlighted as the basis of 'alterity'.

Marsden, Banks and Bristow (2000) have developed a three-fold typology of SFSCs to understand their contribution to rural development. They are: a) face-to-face SFSCs (the producer and consumer have direct interaction due to direct selling, including selling mediated by the Internet); b) spatially proximate SFSCs (products are produced and retailed within a particular region of production and the consumers are aware of its 'local' quality); c) spatially extended SFSCs (consumers are located outside the region of production but the product itself is value-laden with information regarding the place and people producing it).

In the context of developing countries, SFSCs are not simply a leftover from the past characterised by deficient infrastructure and catering to urban areas with low population density (Moustier, 2017). They are new and creative channels emerging through the action of consumers, producers, non-governmental organisations and governments, especially in the context of perishable and/or quality commodities like organics (Moustier and Renting, 2015; Moustier, 2017). They are developing as a consequence of the increasing health concerns of consumers and spending capacity (Osswald and Menon, 2013; Moustier, 2017). However, distinguishing between the SFSCs of the Global North and South, Freidberg and Goldstein (2011) note that geographical distance is often considered less important than relational proximity in the former regions due to technological interventions. However, for some producers and in the context of developing regions, spatial distance plays a critical role by re-prioritising the idea of geographical proximity, although always in combination with relational proximity (Moustier and Renting, 2015).

Proximity

Short food-supply chains are ultimately reconfiguring the proximity between producers and consumers (Aubry and Kebir, 2013). In the context of developing countries, proximity holds the following advantages for market organisation: shortening marketing chains, lowering price differentials, indicating information on quality and control, and assuring freshness (Moustier and Renting, 2015). Torre and Rallet (2005) identify two types of proximity that have been adopted in later works on agri-food supply chains (Kebir & Torre, 2012; Aubry and Kebir, 2013; Eriksen, 2013; Dubois, 2018). Geographical proximity is defined as the objective distance in geographical space between two units. This objective measure has a subjective component wherein individual judgement and perception of closeness and farness are critical in understanding geographical proximity. On the other hand, organised proximity refers to relational proximity facilitated by interactions within any "structured unit of relations" or organisation (Torre and Rallet, 2005: 58). Both are interrelated as geographical distance and relational closeness reinforce each other.

Similarly, Eriksen (2013) highlights three domains of proximity in defining local food. Geographical proximity as a domain of proximity refers to the specific spatial or geographical locality, distance and/or radius within which food is produced, distributed, retailed, and consumed. The concept of relational proximity pertains to the relations (market) between actors who are reconnected through alternative production and distribution practices, such as direct selling AFNs. Lastly, values of proximity refer to the values (positive, symbolic, or qualitative) different actors attach to local food. Eriksen's taxonomical contribution can be extended to

understanding direct-to-consumer organic food networks as it accounts for the notions of geographic distance, relational closeness, and quality dimension of organic food.

Dubois (2018) likewise explores the concept of proximity through the dynamics of organised proximities mobilised within AFNs. Dubois outlines the following modes of organised proximities: temporary geographical proximity (occasions of direct producer-consumer interaction, such as during farmers' markets or on-farm sales); social proximity (interpersonal ties between producers and consumers that are mobilised through direct interaction or mediated through a trusted third party); cognitive proximity (convergence of producer-consumer knowledge bases regarding food quality and origin that are transmitted through interpersonal relations in the form of "tacit, 'sticky' knowledge" (ibid: 6)); organisational proximity (the multiplicity of networks and practices producers leverage to transmit information, money and foodstuff to the end-consumer); and institutional proximity (co-creation and transmission of values, norms and institutions between producers and consumers).

Aubry and Kebir (2013) developed a typology of SFSCs based on the bearing of geographical and organised proximity on producer-consumer relations. The first type consists of supply chains with loose producer-consumer relations that resemble the conventional long supply chains. Products are traceable but the relationship is mediated through labels and other confidence markers. This type is based on weak geographical and organised proximity and is therefore not considered an SFSC. The second category of SFSCs comprises supply chains based on indirect relations stemming from strong geographical proximity but weak organised proximity. Product quality is tied to a common geographical territory and the relationship between the producer and consumer is mediated through the presence of one or more intermediaries. Thirdly, there are those SFSCs that are characterised by distanced relations (eg. direct online selling, direct mail order selling). Organised proximity forms the basis of these supply chains that nurture proximity in the form of shared values and confidence rather than localisation of producer-consumer relations. Lastly, supply chains based on direct relations are SFSCs in the true sense of the term as they combine geographical proximity with organised proximity to 'reconnect' producers and consumers (Kneafsey et al., 2008). Producers and consumers can meet each other at the point of purchase (eg. farmers' market, on-farm selling), affording them 'moments of connection' (Venn et al., 2006) or 'temporary geographical proximity' (Dubois, 2018) at farmers' markets, farm gates, farm shops, fairs, and other spaces of co-presence.

This paper begins by drawing on the typology of SFSCs outlined in the work of Renting et al. (2003) and Aubry and Kebir (2013). It highlights the importance of face-to-face SFSCs based on direct or distanced relations for organic food producers of Delhi NCR. The paper furthermore draws on the concept of proximity to explore the role of geographical and relational proximity in SFSCs based on direct selling during the global pandemic. Geographical proximity refers to the geographical distance between the producer and the consumer. On the other hand, relational proximity refers to the direct (market) relationship between producers and consumers that fosters a reconnection based on certain shared values, beliefs, knowledge and their transmission.

Methodology

This study focuses on organic food producers in the Delhi National Capital Region (NCR) who sell part or all of their organic produce directly to consumers. The absence of intermediaries between producers and consumers is central to the idea of direct selling initiatives. As such, they fall within the category of short food supply chains that are face-to-face or proximate (Marsden et al., 2000). In India, direct selling of organic food includes channels like farmers' markets, farm shops, farm (or home) collection, mobile sales points, community-supported agriculture (CSA), farm rental schemes, online sales, and home delivery (Osswald and Menon, 2013; Singh, 2009; observations from the field).

The perspective of the producers is given primacy as they make a concerted effort to tap into alternative

supply chains that involve additional labour (such as processing, packaging, marketing, and relationship building) beyond their role in growing food. It demonstrates their 'capacity to act' (Goodman and DuPuis, 2002) by exercising 'choice' to sell their products directly and recapture value that is otherwise lost to intermediaries. However, their ability to participate in specific supply chains is affected by factors and events beyond their control, such as COVID-19 and governmental regulations around it. How they navigate and adapt to these external factors is at the core of the paper and is explored through the conceptual lens of proximity in SFSCs. The paper draws on interviews conducted with 26 organic food producers of Delhi NCR who are involved in direct selling to the end consumer. The respondents are part of a broader doctoral research on organic food networks of Delhi NCR conducted between April 2022 and October 2023. My doctoral fieldwork started after India had emerged from three waves of the pandemic but with the memories and images of its effects still fresh in the public's mind. As advisories on social distancing and travel restrictions waned and the vaccination drive gained ground, I ventured into the 'fields' of organic food producers for my 'field'work. These instances of temporary geographical proximity (Dubois, 2018) were pivotal to understanding the role of proximity in building AFNs. I experienced the field not only as a researcher but also as a consumer, as my exposure to the subject was intricately tied to eating in the field.

Initially, respondents were approached during visits to organic farmers' markets, trade fairs, and exhibitions held in Delhi NCR. These gatherings were instrumental in introducing me to farmers and key persons involved in the organic farming sector. They, in turn, provided introductions and references to other organic food producers in the region within their social and professional networks. In-person and telephonic interviews were conducted between March and October 2022. The interviews were recorded with the consent of the respondents and transcribed for analysis.

The producers were asked questions specific to their experience of direct-selling organic food during the pandemic. The questions focused on the first phase of the lockdown to understand the impact of the unanticipated nature and resultant initial disruption to the conventional agri-food supply chains. A central criterion for the selection of respondents was that they had to be involved in organic farming before the beginning of the pandemic. This enabled them to specifically gauge the impact of the pandemic on direct-to-consumer selling supply chains in comparison to pre-Covid conditions.

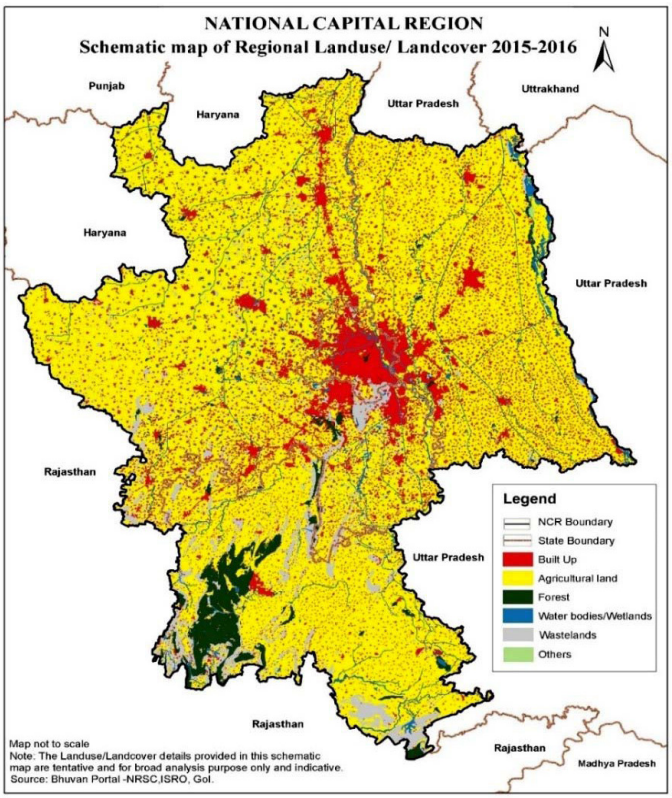
Some respondents in this study practice both conventional and organic farming and participate in both conventional and alternative supply chains. A vast majority of the respondents sell at least some of their produce in the agricultural wholesale markets or mandis, including their organic produce, and even sell them to intermediaries such as organic retailers or producer-aggregators. They participate in the conventional supply chains such as the mandis when they have excess produce, for perishables (as they have a short shelf-life), or for specific crops like rice which do not find a ready market in the region through direct selling. Similar instances of producers operating within both long food supply chains and short food supply chains simultaneously have been observed in multiple studies (Ilbery and Maye, 2005; Aubry and Kebir, 2013).

The location of the study – Delhi NCR – also played a crucial role in understanding the impact of the pandemic on the food system. Delhi NCR is an urban-rural, inter-state planning and development region constituted under the National Capital Region Planning Board Act, of 1985 (NCRPB, 2021). The region covers an area of 55,083 sq. km. (as of 2018). It spreads across NCT-Delhi and select districts from the three adjoining states of Haryana (14 districts), Uttar Pradesh (8 districts), and Rajasthan (2 districts). The region comprises 4 sub-regions, namely: NCT-Delhi, Haryana, Uttar Pradesh, and Rajasthan (refer to Fig. 1). According to the Census of India 2011, Delhi NCR supports a population of 58,157,286 and the region's contribution to the national GDP is about 8%, making it the highest contributor (Census, 2011).

Figure 1: Map of Delhi National Capital Region (NCR) and its Constituent Sub-Regions

Source: Draft Regional Plan 2041 NCR, NCRPB Report, 2021

Figure 2: Schematic Map of Delhi National Capital Region's (NCR) Landuse/Landcover 2015-16



Source: Draft Regional Plan 2041 NCR, NCRPB Report, 2021

The total agricultural land use area in this region is 81.66% as of 2015-2016 (NCRPB, 2021, see Fig. 2). For this study, only the districts within Haryana and Uttar Pradesh under Delhi NCR were considered. The share of each sub-region under consideration in the total agricultural land use in Delhi NCR is (NCRPB, 2021):

- Haryana sub-region: 47.7%
- Uttar Pradesh sub-region: 22.5%

The sub-regions of Haryana and western Uttar Pradesh were at the forefront of adopting and implementing Green Revolution technologies and have experienced agricultural-led growth since the 1960s. Farming here is characterised by an intensive monocropping system with heavy reliance on a well-developed irrigation system, chemical inputs, and HYV seeds. The agricultural landscape is dominated by two food grain crops: rice (kharif crop) and wheat (rabi crop) (NCRPB, 2021). Other crops grown in this region include sugarcane, maize, bajra (pearl millets), jowar (sorghum), mustard, pulses, barley, and varieties of fruits and vegetables. The sub-regions have a network of mandis that cater to the large farming communities of the two states. It is also important to note here that Haryana and Uttar Pradesh emerged in third and fourth position in terms of wheat procurement by the government during the lockdown period (PIB, 2021). Therefore, procurement through government agencies is also an important marketing channel for producers in this region, particularly for wheat.

The two sub-regions have been identified as important sites for the potential adoption of organic food production practices due to their pre-existing heavy reliance on chemical inputs (Mahale, 2002 cited in Singh, 2009). However, neither of the two state governments has adopted an official state organic farming policy (as of 2023). There has nonetheless been the promotion of organic and natural farming in the recent past ("Haryana to promote organic farming in a big way", 2022; "Aim to develop Uttar Pradesh as an 'Organic State': CM Yogi", 2022). However, the move towards organic farming in India has been primarily led by farmers

and civil society organisations without much governmental support (Alvares, 2014), as in the case of the respondents of this study.

The respondents are consciously adopting an 'alternative' path to agriculture and marketing that is still evolving.[6] The paper broadly uses the definition of organic farming as chemical-free farming, due to the diversity of models, principles, and practices adopted by practitioners.[7] A majority of the respondents primarily cultivate non-perishable crops that are conventionally grown in the region: wheat, rice, mustard, and sugarcane. Therefore, during the time of the first lockdown, they were in the process of harvesting or marketing their wheat crop. A significant number also grow high-value perishable crops like fruits and vegetables for self-consumption, while some grow them for commercial reasons as well. They are partaking in the construction and maintenance of short food-supply chains built on direct and distanced relations with primarily urban consumers of Delhi NCR. The next section explores the organic farmers' participation in short food-supply chains.

The Possibilities of SFSCs: Direct Selling of Organic Food in Delhi NCR

Farming communities in the states of Haryana and Uttar Pradesh rely on its robust mandis or government wholesale agricultural markets to sell their produce even though they are plagued by many operational issues (see, Chand, 2012; Jan and Harriss-White, 2012; Cohen, 2013; Singh, 2018). For organic food producers of this region, however, mandis are not a lucrative option. The farmers are neither paid a premium for their labour-intensive and sustainable agricultural practices, nor compensated for the loss in yield. There is an absence of dedicated APMC yards for organic produce or even separate organic selling points in existing mandis. Consequently, many farmers face disappointment in terms of remuneration. One of the farmers commented:

> *When we go to the mandi, the value of a donkey and a horse is the same. Now in the mandis donkeys are getting sold and we are going to sell horses but get the same price, then we'll also raise donkeys only. (Interview with a farmer from Sonipat, Haryana)*

Seeking 'fair' compensation for labour and ecosystem services is a crucial catalyst for organic farmers in the region to sell directly to the end consumer. This end-consumer generally has the capacity to pay a premium price for the products and is primarily located in the high-income earning urban centres of Delhi, Gurgaon, and Noida within Delhi NCR, which has a significant middle class. This is corroborated by findings from other studies on organic food and AFN initiatives in India (Osswald and Menon, 2013; Erler and Dittrich, 2020; Yousefian et al., 2021). Partaking in face-to-face short food-supply chains based on distanced and direct relations (Marsden et al., 2000; Aubry and Kebir, 2013) becomes a reality due to improved infrastructure, an urban consumer population seeking out healthy and/or safe food supported by the rural-urban planning region and percolation of internet connectivity.

Geographical proximity to potential customers provides them the platform to seek better remunerative avenues and develop relational proximity. By eliminating middlemen from the equation, the farmers are remunerated better, retain a higher value of the product and are also able to offer their value-added produce to consumers at lower prices (Hinrichs, 2000; Chand, 2012; Kneafsey et al, 2013; Dubois, 2018). A farmer explained:

[6] Here I differentiate between the respondents of this study, and farmers who are 'organic by default.' The latter are farmers who traditionally practice non-chemical farming in hilly, tribal and rain-fed regions of the subcontinent and are not certified organic.
[7] It is important to note here that some respondents also identify themselves as practising 'prakritik' or natural farming rather than organic farming. Natural farming is seen as going one step further than organic farming in terms of sustainability. The basic distinction they make between the two is that while organic farming still relies on the market for inputs, such as bio-inputs, in natural farming, farmers use materials (cow dung, cow urine, curd, gram flour, etc.) available with them or locally to formulate their own inputs and make them on-farm. For other respondents, the difference in nomenclature is not a cause of concern and they believe it can be confusing and divisive. For the purpose of the study, those farmers who are or have been certified under organic certification systems recognised by the Government of India or who consider themselves organic farmers have been included.

> *When the customer is buying directly from the farmer, then it benefits both parties. The farmer can sell it for two rupees more, and the person who is buying can save two rupees compared to the market. Everyone benefits. (Interview with a farmer from Karnal, Haryana)*

Selling directly from the farm gate also eliminates the logistical costs involved with transportation. Moreover, delivery of produce to the end consumers may lead to losses if the economies of scale are unfavourable. Some farmers choose to overlook this since they witness the relational or non-monetary benefits of engaging in direct selling, owing to the social embeddedness of these market relations (Hinrichs, 2000; Kneafsey et al., 2013). Direct-to-consumer models promote the potential development of trust-based relationships with end-consumers guaranteeing them fair prices and a ready market based on relational proximity. This is evident in the narrative of a farmer:

> *I like selling to my direct customers. One reason is they at least know us by face. We give them first priority. They know us by face, they have bought organic from us and feel that they have bought good food, safe food from us. When their requirements are met, then we sell them to others. (Interview with a farmer from Charkhi Dadri, Haryana)*

Relational proximity helps build more trust-based relations due to increased interactions (both online and offline), knowledge sharing, dissemination of 'quality' aspects of products, places, and practices, and co-creation of values and beliefs through interactions. Nonetheless, there is consensus that direct marketing can be challenging, especially in the initial years. Limited access to direct markets, low retention rates, increased reliance on e-commerce channels by consumers, limitations of time, fluctuating or low demand for specific produce or products, a finite food basket, shelf-life of products, logistical issues, and systemic shocks like the pandemic and natural calamities. This has led organic farmers in the region to simultaneously straddle both the conventional and the short food-supply chains. However, the producers' first inclination is to sell their produce directly to consumers rather than to intermediaries of the conventional marketing channels. The pandemic posed its own challenges to these emergent SFSC structures.

Direct Selling Organic Food in the Time of a Pandemic

When asked about the impact of the lockdown on their everyday life, the organic farmers unanimously responded by saying that it was business as usual in the villages. It was the city-dwellers who were locked indoors and COVID was a predominantly urban disease, according to them. Exempting agricultural activities from the lockdown opened up the villages and movement within them. Yet even as agricultural activities continued, with some emerging issues related to the availability of inputs, machinery and labour, agricultural marketing suffered in the initial stage, including producers engaged in direct selling.

The majority of respondents in this study sell at least a part of their organic produce from their homes or their farms. Customers, who collect their orders (often made by pre-booking in the case of wheat) directly from the producer's farm or home, include extended family or members of the farmer's social circle with whom they have pre-established trust-based relations. During the pandemic, organic producers whose clientele was local and lived in nearby rural and urban areas, and who had moved back to their ancestral (village) homes, could collect their orders without any hindrance. Regular customers were informed about the harvest through social media channels (primarily through the platform WhatsApp) and over the phone, just as they had been in previous seasons.

> *I didn't have any problem in selling. We were able to sell everything…All our customers came and bought it from our house itself. I didn't step outside the four walls of my house with even one kilo of my produce. If a relative requested me to put their order on a bus, I just went and loaded it on the bus. That's it. That's only 5-10 kilos, not more than that. Only for relatives. (Interview with a farmer from Jhajjar, Haryana who had harvested wheat during the first lockdown)*

Geographical proximity was advantageous for the farmer. However, it was coloured by the role of social embeddedness and its impact on the direct-selling producer-consumer relationship. The aspect of relational

proximity based on pre-existing relationships proved important in how the geographical distance was navigated. Nevertheless, the importance of the geographical distance between the sites of production and consumption is clear in the narrative of a farmer in Panipat, Haryana, who had harvested about 250-300 quintals of wheat during the time of the first lockdown. He said:

> *The organic customers I have live far away. I don't have that many customers who live nearby. So all the wheat crop we had harvested at the time was supposed to go outside. But all modes of transportation and everything were shut down. It was very difficult to send it. The harvest just remained in my house throughout the year. Almost 60% of our harvest was wasted.*[8]

This experience was echoed by another producer who used to sell his vegetables at an organic farmers' market held in one of the major cities of Delhi NCR, Gurgaon. The sales of his vegetables ceased completely and instead, he had to sell his crop in the mandi at a time when the rates for vegetables were falling. However, he was able to sell his wheat without any difficulties because he had a regular base of local customers for his grains.

This highlights another factor that determined the experience of organic food producers engaged in direct selling or not: the choice of what crop and variety to cultivate. Those engaged in farming non-perishable crops were relatively less affected than producers growing fresh, perishable produce. However, as noted above, the existence of storage infrastructure and transportation facilities can play a vital role in how much and how long the harvest can be stored. The following observation was made by a farmer in Karnal, Haryana.

> *People in normal small towns buy their entire year's stock at one go [specifically referring to non-perishables like wheat]. They don't have any problems or any worries even if Covid continues for a year…. But the people who have suffered the most damage during Covid have been vegetable farmers and fruit farmers. The most amount of damage. This crop [pointing at his rice fields] can be stocked, it's not a problem. When it ripens, we can harvest, dry, and stock. We can sell it even after a year without any concern. But we can't store vegetables in our house, nor can we store fruits. They will melt and spoil. And there aren't enough cold storage facilities to store all the vegetables. Even if the produce is distributed throughout the village, there will still be waste.*

When there are no travel restrictions, farmers can opt to sell their fresh produce directly to consumers in major cities, albeit considering economies of scale. But COVID-19 presented a particular challenge as it altered what constituted face-to-face and proximate rural-urban food supply chains. Those who relied on the major cities of Delhi NCR, especially for fresh produce, had to rethink their clientele. This can also be attributed to the fact that while the cities were under lockdown it was almost business as usual in the rural areas with people visiting each other's farms and homes.

An organic vegetable producer from Panipat, Haryana sold all his produce to about 25-30 families in Delhi before Covid. However, the geographical distance between the farm and customers made him rethink his strategy and instead focus on developing a clientele close to the farm. He witnessed an increase in his local clientele as he started selling the produce to them at local market rates, and he became known to people in the village through word-of-mouth. Customers could see his production practices directly at the farm and some were curious. However, they were initially hesitant due to the perceived high cost of the produce and because they believed he had an "officer-like attitude" so he would not want to sell the produce to the village residents or cater to their queries regarding the produce and visits to the farm[9]

Producers like him re-evaluated the potential benefits of selling organic food to their immediate neighbours

[8] The wheat harvest was destroyed due to inadequate storage facilities and the introduction of moisture into the crop, that attracted pests. Inadequate storage infrastructure is a problem that plagues the Indian agri-food supply chain even in the absence of systemic shocks like the pandemic. It was aggravated during COVID-19 as more farmers chose to store their produce rather than sell it due to falling prices and logistical issues (Rawal et al., 2020).

[9] The people in his village knew that the farmer sold the vegetables from his farm to people in Delhi. Additionally, the farmer was himself an outsider to the village as he had left his job in the banking sector to start his organic farming endeavour. Building relational proximity was a legitimate concern for him.

despite the decrease in the price premium that they would normally charge people living in the major cities. It was still seen as beneficial to the organic farmer as there was less food waste, higher prices than offered at the mandi, and monetary gain derived from eliminating transport costs. Additionally, one of the principles held by some of the producers was to bring good food to those among whom they lived and with whom they socialised. The rationale for a third farmer was simple.

> *Most of the people didn't have work, or a good earning (during the pandemic). At the time, we also thought, why should we sell it to them at the same rate as we do in Gurgaon and Delhi? What is their fault? We don't have to bear any transportation costs, we don't have to invest any time, and we didn't require extra labour. So, we also thought about it a little and set the price accordingly. (Interview with a farmer from Sonipat, Haryana)*

Another farmer mentioned that as urban areas went into stringent lockdown, people started flocking to the rural areas where they had families or homes. This gave farmers access to newer customers in close geographical proximity, who were aligned to value and seek out fresh, healthy and organic food. The demand for organic products also witnessed an uptake during this period as people turned to this sector for immunity-boosting products and healthy food options like organic products (USDA, 2021). People started to seek out organic producers near them for quality produce like moringa powder, turmeric, and so on to fight the virus. Consequently, some farmers adapted to these newly emerging demands they received through feedback, owing to their relational proximity with old and new consumers.

Furthermore, organic food producers who directly sell to consumers often also home deliver or courier their products to consumers. During Covid, these established channels proved beneficial to those farmers who had a consumer base within close geographical proximity as they could use passes granted by local authorities to deliver their produce which fell under the category of 'essentials'. A farmer in Karnal, Haryana, mentioned that during Covid he was able to supply other perishable products to his customers as he delivered milk and dairy products to them regularly. This helped 'thicken' his relationship with the customers as they appreciated him continuing his services despite the fears of COVID-19.

A farmer from Bulandshahr in Uttar Pradesh set up a collection point in Ghaziabad so that his customers from the city could continue to collect their orders without any hitches.[10] He also mentioned how his consumers came together to help one another as one person collected the produce for those living in the same residential communities or complexes. This reduced crowds and supported social distancing measures. Farmers also increasingly adopted the use of social media and digital payment methods to strengthen their connection with consumers and facilitate the seamless functioning of a socially distanced delivery system building an SFSC with distanced relations.[11]

Farmers with established clientele not only want to retain their hard-earned customers but also feel an obligation to cater to them. Long-term economic and social relationships may develop between producers and consumers within short food supply chains, leading to the development of a sense of responsibility and trust between the parties. The realisation of such relationships depends on factors such as frequency of interactions, quality of interaction, shared values and beliefs around notions of quality, and inclination to build social relations, that is, organised proximity (Dubois, 2018).

Relational proximity plays a critical role in this instance as the interests, sense of belonging, values and beliefs of producers and consumers in relation to the organic food system affect the motivation for both to reconnect with each other (Kneafsey et al., 2008). Most farmers give precedence to their regulars who have come to trust the producer and build a relationship with them (if only to the extent of buying organic

[10] The farmer also runs a farmers' producer organization (FPO) and procures organic products from other farmers to sell to the end-consumer.

[11] Even pre-pandemic, the role of social media and digital transfers were increasingly gaining importance due to multiple factors, including a push from the government of India under its 'Digital India' programme, increasing coverage of fast internet networks, the proliferation of digital payment applications, and popularisation of social media.

products). This continued during the pandemic. A farmer in Bhiwani, Haryana, explained:

> *When I harvest the wheat, I can't say yes to any new consumer because even before harvesting it is booked. I think that I have 15 customers. It becomes my moral duty to ask them if they want the wheat or not, whether I ask them in January or February. If someone says yes, then okay. And then I estimate how much yield I will be getting this time. And only after fulfilling the requirements of my regulars, if I have any excess and I get a call, I say yes.*

Trust plays a pivotal role in direct-to-consumer networks, which became even more important during the pandemic. For farmers, the pandemic tested this relationship. A question that emerged for them was whether their customers would return when the lockdown ended. It is evident from the responses that the organic food supply chain based on a direct-to-consumer marketing model did not remain unaffected by the pandemic.

Alternative Food Networks during a Pandemic: Insights from Delhi NCR

The respondents of this study all participate in what can be termed as 'strong' alternative food networks (Watts et al., 2005). Not only the 'quality' of the product circulated in the network but also the journey from 'farm to fork' and the potential for 'reconnection' (Kneafsey et al., 2008) are of importance for the producers. They allow a dynamism and connectedness that enables local food supply chains to adapt quicker to supply chain shocks like COVID-19, with the flexibility afforded by adopting localised responses and mobilising the actors' resilience (Bene, 2020; Thilmany et al., 2020).

The concept of proximity has been taken as the focal point of analysis to contextualise the role of short food supply chains for organic food producers during the pandemic (Kebir & Torre, 2012; Aubry and Kebir, 2013; Eriksen, 2013; Dubois, 2018). Spatial relations and social relations work in tandem within direct selling SFSCs (Hinrichs, 2000). Therefore, this section explores proximity within the organic food networks of Delhi NCR from two perspectives during the pandemic: geographical and relational proximity.

Geographical proximity

The spatial or physical distance between organic food producers and their consumers became a vital parameter that determined the smooth operations of direct-to-consumer supply chains. Geographical proximity constraints (Torre and Rallet, 2005) in the form of the immobility of agricultural land introduced barriers to the operation of SFSCs. Restrictions on the movement of people and goods were at the heart of managing the spread of the virus during COVID-19 in India, which made distance even more embedded in the functioning of the food system.

The impact of geographical distance between production and marketing sites was evident in the initial faltering of the Indian food supply chain during the pandemic (Mahajan & Tomar, 2020). Additionally, the rule of social distancing altered the subjective perception of geographical distance (Torre and Rallet, 2005) and took away opportunities for 'temporary geographical proximity' (Dubois, 2018) presented during in-person interactions. Distances became 'relatively further' due to the reconfiguration of how geographical spaces were constructed into zones. Therefore, urban areas that were perceived as geographically proximate pre-Covid, became geographically distant with the introduction of movement restrictions during the pandemic. Major urban areas were under stringent lockdown restrictions, while movement in villages continued largely unrestricted. A majority of the respondents relied on an urban clientele located in the major urban centres in the region. Urban, middle-class consumers are at the heart of the "new consumer revolution" (Srinivas 2012: 358) in India and are driving demand for organic food (Osswald and Menon, 2013). Respondents whose clientele lived near them were able to conduct business as usual and sell their produce from their farmgate or homes and even continue/start home delivery without too many hardships. Non-perishable and value-added organic products could even be stored for when mobility restrictions were relaxed for customers.

On the other hand, respondents whose customers lived in distant cities/towns were unable to reach them and vice versa, and suffered due to falling sales. This was especially true for producers of perishable food where post-harvest losses were immense. The lack of adequate storage facilities and infrastructural support caused many to lose their crops. A shortened food supply chain has been evidenced to be particularly beneficial for perishable products with a closer farm-to-fork distance, due to their short shelf-life (Blay-Palmer et al., 2021). Respondents, especially perishable organic food producers, began seeking local consumers and clientele within their own and neighbouring villages and towns, who were accessible during the pandemic. This showcased the flexibility of short food supply chains as producers were able to navigate the blockades of the lockdown through their capacity to adapt and leverage their resilience (Bene, 2020). Systemic shocks can rapidly sever rural-urban connections in a planning region like Delhi NCR. However, as other studies show, they can also help develop resilient production-consumption food networks as producers and consumers rely on geographically contiguous or proximate regions by reconfiguring the SFSCs (Blay-Palmer et al., 2021; Yousefian et al., 2021).

Relational proximity

Direct selling entails developing a personal relationship (to varying degrees) between the producer and the consumer that is generally based on trust (Hinrichs, 2000). This direct relation between producers and consumers at the interface of alternative production and provisioning practices is relational proximity (Eriksen, 2013), and is often based on shared values and confidence (Kebir & Torre, 2012). However, the development of a community based on relational proximity has been contested (Freidberg and Goldstein, 2011).

In alternative food supply chains of organic food, relational proximity is mediated by a shared logic of belonging to the same network of producers and consumers of 'quality' and value-laden food products, and a logic of similarity deriving from a shared vision and values of organic food and farming (Torre and Rallet, 2005). The pandemic highlighted the importance of relational proximity for the respondents in a few ways.

Organic farmers continued to cater, often at limited capacity, to regular consumers with whom they shared a trust-based relationship. Mutual accountability and trust evolve in long-term producer-consumer associations through the medium of food and the exchange of values and knowledge. The resulting relational proximity between the two parties has the ability to overcome shocks and stressors like COVID-19 (Thilmany et al., 2020). Nonetheless, these producers' ability to continue to cater to requirements was affected by spatial distance from the consumers during the initial phase of lockdown.

Face-to-face interactions with distant consumers were greatly reduced as a result of restrictions on mobility. Social media channels became a medium to update consumers about the different stages of production and processing the farmers were undertaking, as a form of establishing virtual reconnection (Bos & Owen, 2016) or relational proximity. Owing to relational proximity, most producers, particularly those who produced non-perishable and value-added products, were able to retain their regulars once restrictions were relaxed. In contrast, there was an observable decline in the retention of new customers acquired during the pandemic once its initial threat passed.

Additionally, direct interaction and feedback from consumers allowed the producers to adapt to the demands of the market of the 'new normal'. One such instance was farmers meeting the increased demand for immunity-boosting food products during the pandemic, owing to their diversified production practices (Galanakis, 2020). Respondents reported increased demand for products like raw turmeric, moringa powder, millet and giloy, as well as for their value-added products during the pandemic. They were able to capitalise on such demand owing to direct requests and feedback from consumers and to participate directly in the co-creation and transmission of localised discourses on 'healthy' and 'immunity-boosting' foods.

Furthermore, respondents realized the importance of developing relational proximity to those in their immediate geographical proximity. Concerted efforts were made by producers whose customers lived in distant urban areas to develop a local clientele for their produce. The knowledge of an organic farmer's practices in their community and among neighbours, flexibility to determine their own price points, and social capital were mobilised to expand the network of local customers. In this instance, a combination of geographical proximity and relational proximity (for example, based on membership of the same village community or social group and shared values and beliefs) became the mobilising factors for nurturing relationally proximate face-to-face food networks.

Conclusion

During COVID-19, the mainstream food supply chain adapted and adjusted to the demands of the new restrictions and regulations applied to the agri-food sector. After an initial phase of disruption, the sector slowly regained its equilibrium with a few persisting underlying effects. The short food supply chains were likewise taking cognisance of the 'new normal.' The geographical distance between the farm and the fork became more pronounced as lockdown measures were announced, and organic food supply chains were not unaffected. This paper highlights the co-existence of disruptions, vulnerability, and resilience within the space of alternatives during the span of the pandemic, through the experiences of organic food producers engaged in direct-to-consumer selling models in Delhi NCR.

Consumers who were once considered geographically close to producers became perceptually distanced as mobility was localised. This increased the subjective judgement of geographical distance (Torre and Rallet, 2005) and diminished geographical proximity. For producers of organic food in Delhi NCR, the importance of geographical proximity to the consumer became more pronounced as it directly affected their ability to sell their produce. Therefore, rather than the 'death of geography' (Morgan, 2004)[12] in the face of the increasing prevalence of the relational proximity discourse, the pandemic highlighted the continued relevance and even primacy of the spatial dimension. This is true for SFSCs and AFNs in the Global South, even in the absence of systemic shocks (Moustier and Renting, 2005; Freidberg and Goldstein, 2011).

Direct selling initiatives fall within the scope of face-to-face short food-supply chains, including those initiatives that are mediated through the Internet (Marsden et al., 2000). Organised proximity is characteristic of these SFSCs that are based on distance relations and direct relations (Aubry and Kebir, 2013). On the other hand, geographical proximity is critical to the construction and maintenance of supply chains with direct relations while it is not as consequential in SFSCs based on distanced relations. With the perception of distance being affected, producers, particularly reliant on supply chains with direct relations, had to adapt. How they fared during the pandemic depended on the ability of their production practices and marketing channels to navigate restrictions on movement, especially rural-urban movement, to cater to new demands and clientele, and to maintain relational proximity in the face of geographical distancing.

While some respondents were able to capitalise on their proximity to consumers, others had to re-evaluate their networks and alter their operations. This paper demonstrates that in alternative short food-supply chains, geographical and relational proximity matters, particularly in times of crisis when the resilience of the food system is being challenged. However, when the physical mobility of people is restricted in direct-selling food production-consumption networks, thus distancing both the place of production – that is, the immobile agricultural land (a support good) – and the producers from their consumers, the issue of geographical proximity outweighed organised proximity. As a result, producers had to build relational proximity with

[12] Morgan (2004) argues that organisational proximity cannot be a complete substitute for geographical proximity within learning and knowledge networks and flows across multiple spatial scales. I take this thesis forward in relation to AFNs and SFSCs where relational proximity has gained prominence in the work, to note that during the pandemic, geographical proximity played an even more important role in direct selling marketing initiatives.

potential consumers within geographically proximate locations. Moreover, pre-existing relational proximity based on membership and similarity along non-organic food-related parameters can be used to nurture relational proximity within budding organic food producer-consumer networks.

Fewer operations and shorter chains with greater connectedness between actors offered flexibility to the organic food producers in Delhi NCR. Alternative food networks can provide farmers in India with alternative avenues to improve their livelihood opportunities by leveraging the potential of SFSCs and proximity within specific rural-urban regions. The capacity to adapt and resiliently face challenges are heightened when multiple marketing channels are available to prevent the total collapse of livelihood in the event of monopolistic conventional channels being disrupted. Producers can move fluidly between supply chains based on considerations of comparative advantage rather than forced choice.

Ultimately, evidence from a comparative perspective of both supply chains suggests that with Covid-like events, characterised by their potential disruptiveness, the food supply chain faces vulnerabilities in the initial stages. With movement restrictions, geographical proximity emerges as an essential concern for a food supply chain increasingly dependent on the transportation of goods and services. Localised responses and resilience capacities of the respondents were key to how well the respondents fared through the initial disruptions that lay bare the vulnerabilities of our supply chains. The pandemic drove home a clear lesson: the flexibility and adaptive capacities of food supply chains and their actors determine the resilience of the food systems.

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