

# Food Issues in the Context of the COVID-19 Pandemic: A Study of Ho Chi Minh City, Vietnam

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## Abstract

Food issues have become more important in the context of social isolation during the COVID-19 pandemic. Adopting the social survey and non-traditional security issue approaches, the study seeks to examine the precarious of people residing in Ho Chi Minh City, and is focused mainly on community food issues in the context of the COVID-19 pandemic. The study also aims to investigate the situation in Ho Chi Minh City during the coronavirus period and examine food security issues within urban settings as a feasible solution to food and nutrition concerns in Ho Chi Minh City during the 4th wave of SARS-CoV-2. Research shows that people in Ho Chi Minh City have faced many economic difficulties and limited food access during the pandemic, and witnessed changes in the procurement of food resources. The autonomic response pattern of people is to grow their own edibles at home. Indeed, policies and support from local authorities still need to play a more decisive role in ensuring food security for the city when there is a crisis similar to COVID-19 in the future.

**Keywords:** food issues, COVID-19, pandemic, Ho Chi Minh City, Vietnam

## Introduction

Since the first COVID-19 case was detected in Wuhan (China) in December 2019, the coronavirus has spread globally. As of May 29, 2022, 06:35 GMT, out of a total of 531,467,522 reported infections,

6,310,530 deaths were recorded (worldometers, 2022). In Vietnam, the first case of the coronavirus was detected in early January 2020. As of May 29, 2022, there have been 10,716,361 confirmed cases of COVID-19 with 43,078 deaths, reported also by Worldometers. As of May 29, 2022, a total of 220,441,206 vaccine doses have been administered for Vietnamese people ([tiemchungcovid19.gov.vn/portal](http://tiemchungcovid19.gov.vn/portal)). Meanwhile, Ho Chi Minh City (HCMC) is the epicenter of community outbreaks (from April to October 2021). From 27 April to 10 October 2021, HCMC witnessed 410,128 cases and 15,634 deaths (WHO, 2021). HCMC implemented tough social distancing rules under Directive No16<sup>1</sup> (then 16 plus) since 9 July 2021<sup>2</sup> and began a partial easing of restrictions according to Directive No18 from 30 September.<sup>3</sup>

COVID-19 has left many negative economic and social consequences worldwide. The United Nations fears the Sustainable Development Goals (SDGs) of eradicating poverty and inequality will not be achieved due to the prolonged pandemic (Nature Editorial, 2020). Sachs *et al.* once asserted that the pandemic had a direct negative impact on food security, poverty, health, social security, and food sovereignty (Sachs *et al.*, 2021)<sup>4</sup>. The groups most affected by the pandemic include

<sup>1</sup> On 31 March 2020, the Prime Minister issued Directive No.16/CT-TTg, which sets out Vietnam's strongest measures yet for preventing and controlling the COVID-19 virus (its contents as for instance all people are required to stay at home, except for trips to buy essential goods such as food and medicine, for emergencies, and to go to work at factories and businesses that remain open.; require people to strictly maintain a minimum distance of two meters when meeting others; gatherings of more than two people are prohibited in all public places, and outside/in front of workplaces, schools, and hospitals...)

<sup>2</sup> Infographic: Six localities impose tough social distancing rules under Directive 16 <http://news.chinhphu.vn/Home/Infographic-Six-localities-impose-tough-social-distancing-rules-under%22a0Directive-16/20217/44554.vgp> access on 15 October 2021

<sup>3</sup> HCMC relaxes social distancing measures, gradually restarts economic activities <http://news.chinhphu.vn/Home/HCMC-relaxes-social-distancing-measures-gradually-restarts-economic-activities/20219/45648.vgp> access on 15 October 2021

<sup>4</sup> World Food Summit in 1996 referred that food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. And at present it is developing food security and nutrition as defined by Food and Agriculture Organization of the United Nations (FAO, 2021). Food sovereignty refers to the right of each individual to determine their own food system which is based on an agroecological model, and accompanying social justice, operating on the basis of the biophysical limits of local ecosystems (Sélingué, M, 2007). On the one hand, food sovereignty is not based solely on the concept of food security, but to a certain extent, emphasizes food justice. Although food security focuses on the mass manufacturing of agricultural products, it does not solve the problems of production, distribution and control of food access (Hossfeld *et al.*, 2018).

youth, migrants, workers, small scale food producers, landless peoples and, more importantly, urban residents. In metropolitan areas, many people endure a vulnerable status because they depend on daily wages. There are inadequate financial reserves and a lack of social protection, such as any state welfare system when a shock (such as coronavirus pandemic) strikes.

Precarity refers to a combination of insecurity, uncertainty and vulnerability in post-industrial contexts in which the prevalent forms of labour are short-term, casualised, and little protected by either employers or the state. This phenomenon is increasing significantly (Arnold, 2013; Allison, 2014; Nguyen, 2019). In the condition of contemporary social and economic transformation, there is a new social class called the *precariat*, a group which performs *precarious* work, such as contract work, flexible and non-standard (atypical) work, temporary and seasonal work, homeworking, insourcing/outsourcing, freelance work, and accidental employment (Cruz-Del Rosario and Rigg, 2019). Arnold and Bongiovi (2013: 289-308) suggest that precarity is an outcome of late capitalism, or neo-liberalism amidst globalised conditions. It is distinguished by informal work that is unrecognised, unregistered, unprotected and (officially) uncounted – but has existed prior to globalisation (Bangasser, 2000).

In Vietnam, precarity studies focus on describing the insecurity and vulnerability of migrants in industrial zones or big cities. Dennis Arnold (2013) indicated that rural-urban migration is an aspect of Vietnam's economic development in which a significant proportion of migrants are employed in industry, a driving force of Vietnam's post-socialist transition and integration into the global economy. In a case study of Dong Nai province, one of the major export manufacturing centers in southern Vietnam, Dennis Arnold described migrants as particularly vulnerable, more so than local residents, creating marginalization and limiting access to social and labor protections due to the household registration system (*Ho khau*). In his case study of a construction enterprise in Ho Chi Minh City, Nguyen Tu Phuong found a paradox between expectations of workers' experiences, which were

grounded in the socialist era, and the realities of workplace injustice and insecurity in a market economy (Nguyen, 2019). Likewise, Do *et al* (2021) pointed out that migrants suffer from more hazardous working conditions than locals and has suggested stronger social protection policies for this group.

Ho Chi Minh City is the largest city in Vietnam with many industrial zones; migrant workers from the localities come to work there. To reduce the 4th wave of COVID-19, the municipal authorities implemented coronavirus-containing measures intensively, such as enforced social distancing and citywide lockdown causing many people to lose their jobs, especially those involved with the food industries. Although the government has made an attempt to ensure enough food supply for the people (Xay Dung Dang, 2021), food distribution has become difficult and prices have skyrocketed, making it hard for people to access food (Bui Thu, 2021). In response, the government has called in the military to assist in delivering food to the population (Chi Hieu, 2021).

Before COVID-19, most research on precarity in Vietnam described the living status of migrants in industrial zones or big cities. It mainly focused on representing their vulnerabilities to economic, social, legal, or political trends. Precarity in Vietnam, and HCMC in particular, during the time of COVID-19, specifically the vulnerability and insecurity of people in accessing food, has not been studied. This study will examine the precarity of two groups - locals and migrants - in Ho Chi Minh City, with a main focus on food issues.

The Nyéléni (2021) newsletter reveals urban food insecurity during the pandemic by illustrating that these areas suffer socio territorial inequalities, an important factor resulting in disparate access to adequate food supplies. Urban consumers also face supply chain disruptions through supermarkets along with increased consumption of industrialized products, and low nutritional quality.

Ho Chi Minh City is the epicenter of the 4th COVID-19 wave in Vietnam. The city's lockdown measures have helped to prevent the spread of the disease (Kim Anh, 2021), but they also disrupt the food supply chain from rural areas and neighboring provinces to the city

(Thanh Thuong, 2021). In addition, the closures of companies and factories have led to the city's economic downturn, causing many groups of internal migrants to return to their hometowns, as they can no longer remain in the city (Hong Chieu, 2021).

Urban agriculture and gardening have become an emerging trend of the people in Ho Chi Minh city to provide a self-sufficient food supply during the COVID-19 pandemic (Loc Lien, 2021). Nonetheless, food security in Vietnamese cities in the context of this coronavirus pandemic, remains under analyzed. Thus, the study aims to (1) investigate the levels of precarity in HCMC during the coronavirus period; and (2) examine food security issues within urban settings as a feasible solution for food and nutrition concerns in Ho Chi Minh City during the 4th wave of SARS-CoV-2. As the pandemic is still ongoing, the time frame for the study covers early 2020 to the end of September 2021.

## **Research Methodology**

To explore people's lives on the ground and the changes in the food system as well as the attitudes of people towards food-related policies during the coronavirus outbreak, the study employs a participatory approach to examine the precarity of two main groups - locals and migrants – related to food issues in Ho Chi Minh City (Gijjt, 2014). The participatory approach allows participants to actively assess the conditions with which they became involved, and express their views and attitudes about a given policy in a specific context. Participatory evaluation can be used to get qualitative data (such as maps or stories) or quantitative data (measures of values expressed as numbers (Gijjt, 2014). In this study, the authors only make use of the participatory approach to obtain quantitative data from locals based on food conditions, policy satisfaction and the intention of participants, thereby deriving some policy recommendations. The results become useful in urban spaces like Ho Chi Minh City for a number of reasons. On the one hand, the participatory approach allows people to actively contribute solutions to food-related problems. On the other hand, it is also a suitable method of measuring attitudes at the local level.

## Participants and Data Collection Procedures

An online survey was conducted using Google Forms. The authors employed a self-administered questionnaire which could be finished in 10-15 minutes. Questionnaires were distributed to local residents in HCMC through various social media platforms such as Facebook and Zalo. Participants responded directly to the survey via smartphones, laptops or other electronic devices using Google forms. After contacting and discussing with participants the purpose of the study, data was collected after obtaining a consensus from participants. Participants' approval and response rate was 100%. For each questionnaire, participants filled in answers anonymously. In case respondents did not fully understand the question, the authors provided further clarification.

Young adults staying in HCMC during the pandemic were eligible to take the online survey from 20th September to 1st October 2021. People under the age of 18 not residing in HCMC during the coronavirus outbreak were not included in the survey results.

## Data Analysis

Descriptive statistics were used to describe precarity among demographic groups in HCMC. By applying a set of modified survey questions provided by García-Sempere *et al* (2019), the study examined food issues in HCMC. The results were divided into four main indicators, namely (1) Access and availability, (2) Production, (3) Consumption, and (4) Social fabric. Descriptive statistics of these data were calculated by Excel 2020 and expressed as a percentage.

The study used a 5-point Likert scale (0 = complete distrust/dissatisfaction to 5 = complete trust/satisfaction) to investigate the attitudes of people in HCM towards the government and local authorities, food-related policies as well as food acquisition and eating patterns in the post-COVID-19 period. We created these questions partly based on the intention and motivation of citizens towards safe food in the future based on previous research (Dang *et al*, 2021). Data were further calculated by using the software SPSS Statistics 20.

## Demographic Characteristics and Some Precarity Features

Participants under the age of 18 not residing in HCMC during the pandemic were not included in the final results. The final sample comprised 283 (locals = 116; migrants = 167). Some demographic and economic precarity data are provided in Table 1.

Both locals and migrants in HCMC who participated in the survey had a relatively young mean age of 24.7 and 27.9, respectively. The majority of migrants did not own household registration books (78.4%). While most of the local participants lived with others (96.6%), the number of migrants sharing home space was at a high rate as well (77.2%).

Regarding food-related news, the majority of respondents answered that they regularly get updated information about food via newspapers (online/hard copy) and social networking sites (Facebook, Zalo, etc). However, the data show paradoxically that although young people pay much attention to newspapers (mostly online) and use social networking sites, both locals (38.8%) and migrants (30.5%) faced technological difficulty in getting food-related news.

In terms of economic insecurity, Table 1 shows that the number of people doing office work accounted for a high proportion of both locals (16.4%) and migrants (26.3%). Meanwhile, the proportion of unnamed work (*others*) was recorded at a very high rate in both locals and migrants at 44.8% and 30.5%, respectively. In addition, a large number of local participants said they had lost their previous jobs temporarily or permanently because of COVID-19 (36.2%). This figure for migrants is higher, accounting for 44.3% of the respondents.

In terms of financial aid, due to economic and employment instability, people needed financial support from the state to buy food during the lockdown. Only 20.7% of locals and 26.3% of migrants knew they were eligible for financial assistance from the government. Among them, the percentage of people assuming they would not/or did not know whether they were eligible for assistance accounted for a very high percentage in both local (79.3%) and migrant (73.7%) groups. At the time of this survey, had the pandemic situation continued in the months of October, November, and December in 2021, both groups expressed

their desire to receive financial support from the government and local authorities (locals = 78% and migrants = 69.9%).

**Table 1** Demographics and some precarity features in Ho Chi Minh City, Vietnam

Demographics and some precarity features		Locals	Migrants
Initial sample		117	169
Removals	Comprehension check	1	2
<b>Final sample</b>		116	167
Age (years)	Mean	24.7	27.9
	Std. Dev	6.7	8.2
Household book ( <i>số hộ khẩu</i> ) (%)	Yes	94.8	21.6
	No	5.2	78.4
Living arrangements (%)	Alone	3.4	22.8
	Home sharing	96.6	77.2
Information sources for food news (%)	Newspapers (online and paper)	67.2	53.3
	Social networking sites	29.2	38.3
	Television	0.9	2.4
	Friends, neighbours, relatives, etc	0.9	4.2
	Street loudspeakers	0.9	1.2
	Others	0.9	0.6
Tecnological difficulty in getting food-related news (%)	Yes	38.8	30.5
Occupation (%)	Medical workers	6.9	9.0
	Education and training	12.9	10.8
	Freelance workers	7.8	8.4
	Free labourers / unskilled labourers	8.6	7.2
	Officers	16.4	26.3
	Business people	2.6	7.8
	Others	44.8	30.5
Job loss temporarily/permanently (%)	Yes	36.2	44.3
Financial aid (%)	Yes	20.7	26.3
	No	37.9	46.7
	Do not know	41.4	27
Financial support demand (%) (out of "No/ Do not know" in Financial aid indicator)	Yes	N=92 78%	N=123 69.9%

## Food Issues in Ho Chi Minh City during the Pandemic

Tables 2 and table 3 display the overall food issues in Ho Chi Minh City before and after the coronavirus pandemic. The assessed indicators are grouped into four large groups, namely (1) Access and availability; (2) Production; (3) Consumption, and (4) Social fabric. We will look at indicators based on two groups of people: locals and migrants, to see the changes in food structures over time.

### Locals

In terms of access and availability, local participants experienced a big shift when the percentage of individuals/households growing their own edible plants at home increased sharply from 16.4% before the pandemic to 31.0% during the COVID-19 outbreak. Meanwhile, the proportion of individuals/households raising animals for food (*animal husbandry for food production*) remained relatively stable. In addition, before the COVID-19 pandemic, the food sources of local families relied mainly on the local markets (51.7%) and supermarket/convenience stores (38.1%).

These figures changed significantly when the percentage of food supplies from local markets decreased to only 21.5% and local families depended mainly on food from supermarkets/convenience stores (41.4%). Notably during the COVID-19 outbreak, locals also received additional food supplies from relatives, increasing from 3.4% to 5.2%. There were also two new food sources that were important during the pandemic: individuals/groups/charities (9.5%) and local authorities (3.4%).

With regards to food production, before the time of COVID-19, local people basically trusted the information about food provided by suppliers when shopping (69.8%). Notably, 48.3% of the locals thought that the prices of food items before COVID-19 was often changed. This percentage increased significantly up to 92.2% during the pandemic.

Regarding food consumption, there was no big change among local people, as they regularly consumed products from supermarkets, rather than food prepared at home, both before and after COVID-19

(25.9% and 23.3% respectively). However, the trend of sudden changes in people's tastes emerged, as the percentage of locals who said that they enjoyed consuming country/home-grown foods rose from 28.4% before the pandemic to 71.6% during the pandemic.

When examining the social fabric related to food issues in urban areas, 92.2% of respondents say that they encouraged the sharing of agricultural products before the coronavirus outbreak (*encouragement of food sharing practices*). Among these, 72.2% responded that they shared their family's agricultural products with others during the outbreak. Before the pandemic, the number of people participating in the exchange of information with the government on food issues accounted for only 14.7% (*food-policy participation*). During the pandemic, due to lockdowns and social distancing, people mainly updated their information about food from the government/local authorities. However, only 56.9% of locals said they acquired timely information about the city's food issues (*food information obtained on time*).

Regarding post-lockdown practices, although the impact of COVID-19 on the economy and employment has been great, the majority of locals said they will stay in HCMC to continue their old jobs (88.8%). Meanwhile, the proportion of people looking for a new livelihood is 10.3%, and less than 1% of the participants intend to go abroad.

### Migrants

In terms of access and availability, migrant participants showed a slight upward trend in the consumption of homegrown food. The proportion of individuals/households growing their own edible crops at home increased from 13.8% before the pandemic to 20.4% during the pandemic. Meanwhile, the proportion of individuals/households raising animals for food was low and did not increase. Furthermore, before the pandemic, consumers obtained their food mainly from supermarkets/convenience stores (56.3%) and local markets (32.9%). This ratio changed significantly as the share of food supplies for migrants from territorial markets fell to only 15.6% and those from supermarkets/convenience stores decreased slightly to 46.7%. At the same time, two

new food sources became important for migrants during the pandemic: individuals/groups/charities (8.4%) and local governments (6.6%). Meanwhile, the food supplies from relatives always accounted for only a small proportion and did not change significantly.

Regarding food production before the COVID-19 outbreak, migrants basically trusted the information about the food provided when shopping (65.9%). It is noteworthy that 38.9% of respondents said that pre-COVID-19 food prices were subject to frequent change. This figure increased significantly up to 82.0% during the pandemic (*food-price volatility*)

With regard to food consumption, although a large percentage of migrants consumed processed food from supermarkets (46.1%) before the pandemic, the number of people who said they liked to eat country/homegrown dishes rose to 77.8%. After the COVID-19 outbreak, the proportion of people depending on processed food in supermarkets decreased to 24.6%, while the taste for home-grown/country dishes grew to 85.0% among migrant participants.

When it comes to the social fabric related to food issues, the vast majority of migrant respondents said they encouraged the sharing of agricultural products before the pandemic (92.2%) (*encouragement of food sharing practices*). In addition, 79.4% of the migrants said they shared their family's agricultural products with others during the outbreak. Before the pandemic, the number of people participating in the exchange of information with the government on food issues was 18.6% (*food-policy participation*). During the pandemic, due to the citywide lockdown and people staying home, migrants mainly updated their information about food from the government. However, only 51.2% of the respondents said they were updated with timely information on the city's food issues (*food information obtained on time*).

Looking at the post-lockdown intention indicators, the majority of migrants responded that they will stay in HCMC to continue their previous work (76.6%). The percentage of people looking for a new livelihood was 7.8%, while 12% intended to return to their hometown. The rate of people intending to go abroad was 3.6%.

**Table 2** Food issues before the COVID-19

Food issues before the COVID-19		Locals (Percentage) n=116	Migrants (Percentage) n=117
<b>Access and availability</b>			
Home cultivation of edible plants.	Yes	16.4	13.8
Animal husbandry at home for food production	Yes	5.1	4.8
How families obtain food	Local markets	51.7	32.9
	Retail household	6.0	8.4
	Supermarkets, convenience stores	38.1	56.3
	Relatives	3.4	1.2
	Others	0.8	1.2
<b>Production</b>			
Trust in food information	Yes	69.8	65.9
Food-price volatility	Yes	48.3	38.9
<b>Consumption</b>			
Food consumption	Yes	25.9	46.1
Food preference	Yes	28.4	77.8
<b>Social fabric</b>			
Encouragement of food sharing practices	Yes	92.2	92.2
Food-policy participation	Yes	14.7	18.6

### Food Policy Satisfaction and Intention

Figure 1 displays the level of people's satisfaction with the government and the Ho Chi Minh City authorities in handling the COVID-19 pandemic (*trust in the government* and *local authorities*). Following are the indicators of people's satisfaction with food distribution policies (*Food-policy satisfaction*) and people's satisfaction toward the speed of local government disbursement of money to support the people (*Financial aid satisfaction*). Finally, there is a group of indicators representing people's thoughts and desires regarding three items: (1) the support of volunteer activities, such as food distribution from artists, donors, rice ATMs, oxygen ATMs, etc. (*Volunteering activities*); (2) Will

**Table 3** Food issues during COVID-19

Food issues during COVID-19		Locals (Percentage) n=116	Migrants (Percentage) n=167
<b>Access and availability</b>			
Home cultivation of edible plants	Yes	31.0	20.4
Animal husbandry at home for food production	Yes	5.2	7.2
How families obtain food	Local markets	21.5	15.6
	Retail household	19	16.1
	Supermarkets/convenience stores	41.4	46.7
	Relatives	5.2	6.6
	Individuals/groups/charities	9.5	8.4
<b>Production</b>			
Food-price volatility	Yes	92.2	82.0
<b>Consumption</b>			
Food comsumption	Yes	23.3	24.6
Food preference	Yes	71.6	85.0
<b>Social fabric</b>			
Food information obtained on time	Yes	56.9	51.2
Post-lockdown intention	Staying in HCM to continue my work	88.8	76.6
	Find a new livelihood but still in HCM	10.3	7.8
	Return to hometown (for migrants)	-	12
	Go abroad	0.9	3.6

to participate in information exchange with local authorities on food policy or food-related issues if given the opportunity (*Food-policy participation intention*), and (3) Prioritizing home cooking to ensure health and food safety during and after the pandemic (*Food practice intention*).

The rating scale is from 0 = complete distrust/dissatisfaction/disagree to 5 = complete trust/satisfaction/agree.

As can be seen from Figure 1, people's trust in the government and local authorities was at the "moderate" level. Meanwhile, both locals and migrants expressed "dissatisfaction" with the food distribution policy and the financial support programs. The indicators were only at the "average" (*food-policy satisfaction*) and "lower than average" levels (*financial aid satisfaction*), respectively.

The majority of respondents said support from volunteer activities such as food distribution through artists, sponsors, rice ATMs, oxygen ATMs, etc. was important to them. This index was remarkably high (*volunteer activities*). Likewise, many residents expressed their willingness to participate in information exchange with the local authorities on food-related issues if permitted (*food-policy participation intention*). In terms of cooking intention, this index was extremely high, meaning the vast majority of people—both locals and migrants—would prioritize cooking at home during and after the pandemic for food safety and health protection (*food practice intention*).

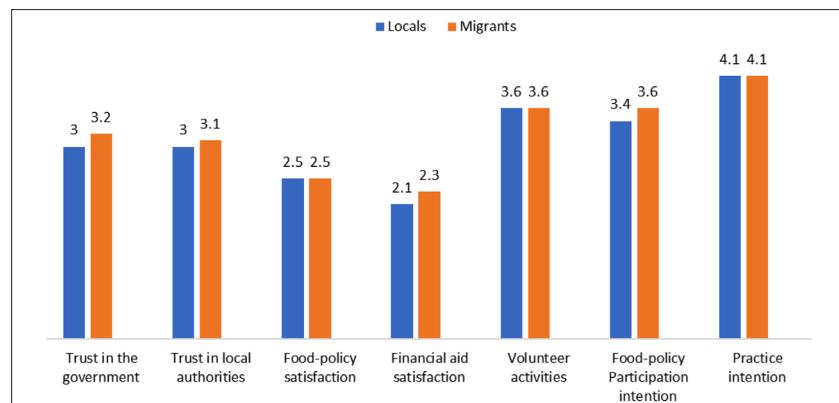


Figure 1 Food policy satisfaction and intention

## Discussion

The COVID-19 pandemic has left a profound impact not only on health issues but also socio-economic aspects of the people residing in HCMC, especially during the fourth outbreak of the Delta variant.

The study found that there is a paradox in the relationship among age, technology and food information indicators. Although the majority of participants (locals and migrants) were young adults capable of digital literacy (*online newspapers and social networking sites*), they face difficulties in using technology to update information related to food-related policies in the city during the pandemic. The main reasons include changes in shipping regulations and the closure of markets due to sudden detections of infectious diseases, which come about frequently, greatly affecting food distribution patterns.

More importantly, economic instability has affected access to food. A large number of people, whether locals or migrants, have lost their jobs temporarily or permanently due to the pandemic (*job loss*), causing them to fall into financial difficulty. Although the city authorities have issued some supportive policies, the number of recipients is still quite modest (financial aid/yes answers), while the number of people who do not know they are eligible for financial assistance from the local authorities account for a large proportion of responses (financial aid/do not know answers). Besides this, the need for financial support exists not only among migrants but also local residents (*financial aid demand*). Therefore, the study suggests that further research should focus on exploring economic and financial measures as well as other practical policies to support the people when crises similar to COVID-19 occur in the future.

Although COVID-19 has left many negative impacts, it is also an important driver for new sustainable and radical changes<sup>5</sup>. For example, with a case study of Nepal, Pradhan et al. (2021) showed similar results when the trend of food self-sufficiency (rooftop gardens in urban spaces) increased rapidly during the lockdowns. Meanwhile, the COVID-19 pandemic has significantly changed the food buying habits and eating patterns of people in HCMC. Before the pandemic, while locals and migrants both depended mainly on food supplies from local

<sup>5</sup> As for Vietnamese Prime Minister Nguyen Xuan Phuc (now President Nguyen Xuan Phuc), he has repeatedly stated in his cabinet meetings that we must turn difficulties into opportunities (biến nguy thành cơ) during the Coronavirus/SARS-CoV-2 epidemic.

markets or supermarkets, it forced people to rely on supermarkets for food supplies during the coronavirus outbreak. Depending mainly on food supplies from supermarkets/convenience stores along with other business costs (such as regular testing for COVID-19 among employees, inter-provincial shipping fees, etc) has caused market price fluctuations (*food price violation*). Due to the difficulty of food distribution issues and unstable prices, the study found that there is a new trend in how to create a self-reliant food supply during the pandemic among people, which is to grow edible plants at home. This trend appeared in both subject groups, although locals showed a tendency to do it more commonly than migrants. As the result, the preference for country/home-grown food, which was seen clearly in the migrant group before COVID-19, is now more popular among the local groups. Thanks to the change in eating patterns, both locals and migrants tend to cook at home for health and hygiene purposes instead of relying on processed food in supermarkets/convenience stores. In addition, the plants grown are not only consumed at home, but also shared with other people in the area. The study would suggest that a new approach to food policy in HCMC emerged during the pandemic in both local and migrant groups with the development of food supply autonomy.

Last but not least, although there is the phenomenon of people actively creating their own food supply, it basically comprises only edible plants instead of animals raised for meat. Therefore, the authorities and their food policies still play a vital role in ensuring food security. In addition, economic downturn and slow financial support have made it difficult for people to survive, especially migrants, when more and more are moving from the city back to their hometowns. This will cause a dearth of human resources in the city with which to revive the economy, particularly the manufacturing sector, when the pandemic eases.

Some limitations still exist in the study. First, data was collected through an online survey, which is convenient but might affect reliability of the study. Second, participants' self-assessment of given items may be shaped by social bias. However, in the context of HCMC's city-wide lockdown during the COVID-19 outbreak, these limitations

are unavoidable. Consequently, further research would be useful (perhaps employing an interview or field trip approach) for investigating new changes in food security policy when society returns to a "new normal" of the post-COVID-19 era.

## Conclusion

This study has focused on food issues in Ho Chi Minh City, the epicenter of the COVID-19 pandemic in Vietnam. Due to strict anti-epidemic measures, the study indicates that the COVID-19 crisis has exacerbated the economic precariousness of migrants as well as locals greatly impacting food access. The research shows that a food supply autonomy phenomenon has become prevalent among residents during the outbreak, especially the locals. However, vegetables grown for food are still primary staples, rather than meat and fish which provide protein for meals. Therefore, food-related policies and measures from the authorities still need to play a decisive role in stabilizing food security for any crises similar to COVID-19 that may occur in the future.

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