

# The Impact of Covid-19 on Household Food Security and Income Generation in Mufulira District, Copperbelt Province

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## Abstract

Household food security poses as a great challenge in most households especially in Africa. The ability to have sufficient food available at all times is deemed as a luxury. With the emergence of the Corona Virus disease commonly known as Covid-19, many countries have suffered economic recessions due to border closures, lockdowns, loss of human resource, diversion of funds hence leading to people losing their jobs, businesses going down and loss of family heads due to the virus. Therefore, this led to household food insecurity in most households and low-income generation. The purpose of the study was to investigate the impact of Covid-19 on household food security and income generation in Francis Mukuka, Mufulira District, Copperbelt Province. The specific objectives were to find out how Covid-19 has affected household food security, to examine the impact of Covid-19 on household income and to investigate measures put in place in order to cope with Covid-19. A case study research method that included a structured interview guide was used to collect data online from a sample of 26 respondents. The respondents were made up of those in employment and business owners, the married as well as those who are single. The study findings show that most households had challenges in feeding the family all the three meals required per day and they experienced inability to have all the desired food. They also revealed that people generated low income hence most of the respondents had to diversify into farming, doing part time business and looking for extra jobs. It was also found that, during the Covid-19 restriction measures, prices for goods had gone up, people were failing to purchase most things for their basic needs and those who could afford were buying in bulk because of restriction of movements. After the lifting up of Covid-19 measures, prices for goods have dropped. In view of the findings, the following recommendations were made. Increase the number of people on the Farmer Input Support Program (FISP) to increase agriculture production so as to achieve related sustainable development goals.

## 1. Background

As a social determinant of health and sustainable development, food security is of global concern with about 10% of the global population and 19% of Africans severely food insecure due to inadequate income capacity and other resources (Mcintyre 2003). The coming of the Covid-19 disease has disrupted global development agenda and economic plans of all nations across the globe. To contain the spread of this pandemic, countries commenced lockdowns, self-isolation, and social distancing given the rapid rise in the population of infected persons. These anticipated restrictions in physical, social and economic activities interrupted the ability to earn a living and affected economic sectors at various levels ranging from the primary sector to manufacturing thereby threatening the attainment of the second Sustainable Development Goal (SDG2) targeted at achieving food security, ending hunger and improved nutrition, (Nicola, 2020).

The upsurge in population over the past decade has seen most of Zambia's rural population migrate to urban areas to better their livelihoods. Most of these people operate small businesses and others do farming, some are in informal employment. However, the coming of the novel Corona virus has affected everyone in both rural and urban areas. More than half of the world has been and still is affected or is under some form of social distancing regime designed to contain the health crisis. Business activity has fallen sharply because of a combination of policy action and personal responses designed to reduce risk of contracting the virus (Goolsbee, 2020).

Corona virus disease (Covid-19) is an infectious disease caused by a newly discovered corona virus. It was first identified amid an outbreak of respiratory illness cases in Wuhan city, Hubei Province, China. It was initially reported to the World Health Organization (WHO) on 30<sup>th</sup> December, 2019. On January 30<sup>th</sup>, 2020, the World Health Organization declared Covid-19 outbreak a global health emergency. On March 11<sup>th</sup>, 2020 it was declared a global pandemic, (Gallegos, 2020). According to World Health Organization (2021), from January 3<sup>rd</sup> 2020 to 18<sup>th</sup> June 2021 there have been 122,224 confirmed cases of Covid-19 with 1,525 deaths in Zambia reported to World Health Organization. As of 15<sup>th</sup> June, 2021 a total of 147,220 vaccine doses have been administered. Covid-19 cases in Zambia continue to increase as the country is now in the third wave of the pandemic (Muchanga *et al.*, 2020). Pandemics affect households as lives are lost, reduction in production, loss of jobs, economies are affected and social lives of people. According to Robinson (2020), a pandemic is a disease outbreak that spreads across countries or continents. It affects more people and takes more lives than an epidemic. The World Health Organisation (WHO) declared Covid-19 to be a pandemic when it became clear that the illness was severe and that it was spreading quickly over a wide area. The upsurge in the Covid -19 cases has brought an economic constraint on all. Covid-19 has caused a global economic recession causing many to lose income and leaving many vulnerable people unable to afford the food they need. Like the rest of the world, African countries are reeling from the health, economic and social effects of Covid-19. The continent's governments have responded by imposing rigorous lockdowns to limit the spread of the virus. The various lockdown measures are undermining food security, because stay at home orders have among others, threatened food production for a continent that relies heavily on agriculture as the bedrock of the economy. Focusing on Africa, Shupler (2020), discovered that 88% of the respondents from a Kenyan informal settlement were food insecure while a survey of 600 Ethiopian households conducted by Abate (2020) found that two thirds of the respondents observed a decline in their source of income with lower income households experiencing the highest impact. In South Africa, households where members depend largely on labour income and possess a lower educational qualification were more likely to be food insecure while Inegbedion (2020) found that the pandemic adversely affected transportation, security and farm labour, which may undermine the production of food in Nigeria. Zambia, like any other country has been severely affected by the Covid-19 pandemic therefore it is in this regard that this research aims to ascertain the impact of Covid-19 on household food security and income generation in Mufulira district of Copper belt province.

## **2. Methods**

According to Creswell (2012) qualitative approach is a type of educational research in which the researcher relies on the views of participants; asks broad general questions; collects data consisting largely of words (or text) from participants. Chiwala & Muchanga (2022) further emphasize that, before selecting any research approach and framework, the topic under investigation must be compatible with the methodological choices. This study used qualitative case study design by collecting data and analyzing it, describing and getting the views from people regarding the impact of Covid-19 on household food security and income generation in the area. A total of 26 adult participants were chosen using purposive sampling, (Saunders,2012). Based on gender and age, the participants were sampled out of the total population of the area. Primary data collection was used to collect data using an online structured interview, (Anja, 2018). Emerging data was analyzed using constant comparative data analysis as it involves breaking down the data into discrete units and coding them into categories and allows the researcher to develop concepts from the data by coding and analyzing at the same time finding patterns within the data. The overarching research questions in the study were; how has Covid-19 affected your household food security and income generation and how has income generation affected household food security? The study was guided by some ethical considerations namely; participants will be free to withdraw from the study and feel free to ask any questions regarding the study. All the information collected will be confidential furthermore, all morals, values, norms, culture and perspective of people in the area will be treated with respect and treated as equal and abide by all ground requirement.

## **3. Findings**

The data obtained from the target group was qualitative and has been analyzed by show of tables. The findings were presented under themes which were derived from the research objectives to show the responses given by the respondents. Table 1 shows how the respondents household food security was affected by Covid-19. The majority representing nine (9) respondents had difficulty in feeding the family while the minority

representing 1 experienced budget overrun. Table 2 shows how respondents income generation was affected by Covid-19.

Table 1: summary of how Covid-19 affected household food security in the study area

Characteristic	frequency	percentage
Very difficult to feed the family	9	34.61
Inability to meet all nutritional requirements	2	7.69
Short supply of food	6	23.07
Budget overrun	1	3.84
High cost of food	3	11.53
Affected source of income	5	19.23
<b>Total</b>	<b>26</b>	<b>100%</b>

Table 2: summary of the impact of Covid-19 on income generation in the study area

Characteristic	frequency	percentage
Low income	10	38.46
Business slowed down	8	30.76
Reduced market	2	7.69
Unable to buy goods for selling	2	7.69
Made more money	4	15.38
<b>Total</b>	<b>26</b>	<b>100%</b>

Source: Field data, (2021).

Table 3 shows the impact of income generation on household food security. The majority experienced inability to have all the desired food while the minority had to restructure the food budget.

Table 3: Summary of impact of income generation on household food security in the study area

Characteristic	frequency	percentage
Low income leading to less food	5	22.72
Reduced number of meals per day	3	13.63
Restructured budget for food	2	9.09
Inability to have all the desired food	12	54.54
<b>Total</b>	<b>22</b>	<b>100%</b>

Source: Field data, (2021).

Table 4 shows measures adopted by respondents in order to reduce the impact of Covid-19. The majority adopted farming in order to increase income and food while the minority started saving money, diversified their business and changed their diet.

Table 4: Summary on measures adopted in order to reduce the impact of Covid-19 in the study area

Characteristic	frequency	percentage
Started saving	2	7.69
Started gardening	4	15.38
Farming	9	34.61
Started small scale business	4	15.38
Changed the diet	2	7.69
Eating twice a day	3	11.53
Diversified the business	2	7.69
<b>Total</b>	<b>26</b>	<b>100%</b>

Source: Field data, (2021).

#### 4. Discussion

##### How Covid-19 affected household food security

The study findings revealed that families had challenges to feed the family because of reduced income, loss of jobs and increase in number of people at home and due to social constraints imposed by government. In a

study conducted by Ouma (2020), the social distancing and lockdown measures that governments had put in place to save lives and suppress the transmission of the virus had resulted in a significant reduction of economic activity across all major economies. At the household level, struggling families are increasingly seeing breadwinners lose their jobs and selling productive assets in order to survive. Restrictions on trade have led to reduced imports and price hikes including high transport costs, increasing prices for agricultural inputs, increase in food prices and business closures. Restrictions on movement have led to job losses and a decline in household incomes. In another study by Bose (2021), the results in the United States also showed that 32.6% of food-insecure households were not using federal food assistance programs and 40.5% of respondents who reported a job disruption during the pandemic received unemployment insurance. Researchers also demonstrated that certain demographic groups were at higher odds of experiencing food insecurity, such as women, younger individuals and those with lower income.

### **Impact of Covid-19 on Income generation**

According to the Business Survey launched by Ministry of Commerce, Trade and Industry undertaken with the support from the United Nations Development Program (UNDP) to assess the impact of the Covid-19 pandemic on various businesses in Zambia, the results of the survey show that Covid-19 had a major impact on businesses in Zambia. Seventy one percent (71%) of the respondents indicated that their businesses were partially closed while fourteen percent (14%) were totally closed. Only fifteen percent (15%) reported to have maintained normal operations. The education, transport, catering and accommodation sectors have been particularly impacted by Covid-19 while other sectors were almost not affected. Eighty five percent (85%) of businesses working in education reported to be completely closed, while sixty percent (60%) of businesses in the human health and social work sector maintained normal operations. The survey also revealed that the majority of enterprises are committed to continue operations by adhering to the new normal requirements to do business alongside Covid-19 threats. Enterprises have further resolved to adopt new development strategies by embracing and exploring new business models, accelerating technological, product and services innovation, and strengthening global reach of supply chain and expansion of overseas markets. The findings of the study reveal that due to Covid-19 peoples income reduced tremendously because of business closures for example teachers who work at private schools found themselves not being paid because schools had closed. Due to restrictions in movement, conducting business activities was also a challenge to generate income hence many of them found themselves venturing into farming, looking for other jobs as well as conducting multiple small-scale businesses. This has led people to not rely heavily on imported food products because people are growing their own food.

### **Impact of income generation on household food security**

The study findings revealed that the majority of the people experienced inability to have all the desired food hence affecting the nutritional intake. A study conducted by Zambia Food Security Issues (2003) reports that, a large portion of Zambia's poor cannot command food resources because they simply cannot afford to purchase it at the prevailing prices. In rural areas, the small-scale farm households are not able to command food resources because of their low per capita productivity to grow and store enough food to provide for their families throughout the year, (Zambia Food Security Issues, 2003). Another study by Economic Commission for Africa's (ECA) adds on that, vulnerable households affected by Covid-19 face a 17.1% increased probability of moving into transient poverty, a 4.2% increased probability of staying in poverty for a decade or longer and a 5.9% fall in the probability of moving out of poverty. Increased poverty levels due to Covid-19 will exacerbate existing income inequalities. As documented in recent reports, the accessibility and affordability of healthy, sustainably produced food has become even more challenging in this pandemic. High value commodities, like fruits and vegetables, meat, fish and dairy, while readily available for now, tend to be more vulnerable to logistical problems because their production is labour intensive and the products are highly perishable (Sustainable nutrition for all, 2020). While low-income households already spend an average of 35% of their income on food, an additional loss of income will bring more households below the poverty line, preventing them from meeting their daily food needs. In a similar study by Brown (2020) on the reality of Covid-19 burden on food security in the Horn and Eastern Africa, the findings reveal that COVID-19 restrictions are also negatively impacted households' livelihoods in urban areas, as federal and state governments implemented lockdown measures and movement restrictions, which limited access to employment. These measures led to a decrease in both formal and

informal trade. The combined loss of household income and in some cases price increment led to an increase in the population-facing crisis. Due to movement restrictions and mandatory business closures, household income from casual labour and petty trade declined to be below normal, especially in urban areas within the region Nairobi, Juba, Kampala and Addis Ababa. Millions lost incomes, failed to access resources needed for day-to-day well-being and will require new skills/training or new ways of supporting their livelihoods. Quarantine measures further limited farmers access to their land and limited their access to essential agricultural inputs. As a result, crop production was below average, leading to more severe food insecurity and malnutrition in the medium to long term. This therefore calls on all to practice sustainability in terms of food consumption, purchasing as well as sustainable farming practices.

### **Measures adopted in order to reduce the impact of Covid-19 on household food security and income generation**

The findings from the study in Francis Mukuka revealed that the majority (12) respondents resorted to farming ranging from backyard gardening to small-scale farming in order to mitigate the impact of Covid-19 on income generation. In similar studies conducted in Sierra Leon and Bhutan the report showed how government working with the World Bank responded to the impact of Covid-19. In Sierra Leon, under the smallholder commercialization and agribusiness development project supported governments Covid-19 response initiatives with inputs, land mechanization services and extension services to support rice farmers. The World Bank financed social safety net project also scaled up its cash transfer system to provide support to the most vulnerable households. In Bhutan, the World Bank realigned its portfolio to support food distribution in the short term and enhance food production in the medium term through inputs supply and irrigation, (World Bank, 2021). In another study by Open Knowledge, a surprisingly low 40 percent of rural households reported income from farming as a means of livelihood over the previous 12 months. Part of the explanation for this may be because rural household producing for subsistence purposes would sell any surplus. In the absence of adequate social protection or social insurance, most households facing income shocks adopt different coping strategies to maintain their food consumption. Other studies reveal that, coping strategies included, for instance, reducing certain types of consumption, selling productive assets, or borrowing Koos (2020). The diversion to farming led to an increase in consumption of organic foods compared to the inorganic foods that are genetically modified organisms. This therefore has led to ecofriendly consumption practices.

### **5. Concluding remark**

The study was set to investigate the impact of Covid-19 on household food security and income generation. Conclusively, it was revealed that most households had challenges feeding the family all the three meals required per day and also experienced inability to have all the desired food. The findings also revealed that people generated low income hence most of the respondents had to diversify into farming, doing part time business and looking for extra jobs. The study findings also show that during the Covid-19 restriction measures, prices for goods had gone up, people were failing to purchase most things for their basic needs and those who could afford were buying in bulk because of restriction of movements. After the lifting up of Covid-19 measures, prices for goods have dropped.

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