

IMPACTS OF THE COVID-19 PANDEMIC ON THE INFORMAL ECONOMY IN NAY PYI TAW, MYANMAR*

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Abstract

The informal economy is one of the crucial parts of a country's economy because of its essential role for the income generation of a large number of people. Developing and Least Developed Countries are to a substantial degree depending on the informal sector. During the Covid-19 pandemic the informal sector was much affected by lockdowns and restrictions in public and private spaces, including markets and restaurants. They had a significant impact on the lives of informal workers as a particularly vulnerable group of population. This study explores, based on international and national literature, the economic impacts of the Covid-19 pandemic on the street vendors and informal workers in Nay Pyi Taw, capital of Myanmar. It further develops suggestions for possible support to ease the situation of the local people and their livelihoods.

Keywords: Informal workers, informal economy, street vendors, Covid-19 pandemic, Nay Pyi Taw, Myanmar

Introduction: The Covid-19 Pandemic and Its Impacts on the Informal Economy

The world's societies have been affected severely by the Covid-19 pandemic since 2019, and its impacts hit very diversely individuals and communities. Myanmar first recorded a case of Covid-19 on 23rd March 2020. The Ministry of Health and Sport as focal Ministry for Covid-19 prevention and recovery plan launched rules and regulations, e.g., for travel restrictions, information on quarantine guidelines, supervision in Covid-19-related precaution measure including the stay at home policies, lockdowns and semi-lockdowns and domestic restrictions during the Covid-19 crisis. Moreover, the Ministry of Social Welfare, Relief and Resettlement collaborated and cooperated with different humanitarian organizations. The Ministry of Labour, Immigration and Population tried to organize the return of thousands of migrant workers working in neighboring countries (CERP, Myanmar).

Support and preventive measures to stabilise the economies in general and to protect especially the informal economies were initiated in many countries of the world, including in Myanmar. Here, like in other countries, many places like schools, workplaces and border areas were closed in order to prevent the spread of Covid-19 virus. According to the International Labour Organization (ILO 2020), about 1.6 billion workers in the informal sector had been directly impacted by the Covid-19 pandemic, facing estimates declines of their earnings to about 60%. About two billion workers and business owners of the informal sector worldwide had to stop their work or to work remotely from their homes.

Informal Economy: Definition and Concept

After the concept of the informal sector was introduced in the 1970s (Hart 1973) to describe the quickly growing urban poverty and survival economies in developing countries (e.g., micro-entrepreneurs, street food vendors, waste collectors), soon its scientific understanding and conceptual framing started to diversify. The term was introduced especially by the International

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Labour Organisation (ILO 1972). At first, it was used exclusively for (non-registered) economic activities (Sterly 2019). At that time the informal sector was understood to be fundamentally different from the formal sector, which consisted of state-registered and -legitimised businesses. Typical characteristics included its "ease of entry, reliance on traditional resources, small scale operations, labour-intensive and adapted technology, skills acquired outside the formal school system, and unregulated and competitive markets" (Sterly 2019: 149, referring to ILO 1972). Characteristic for the informal employment, family workers and other self-employed persons are that employees enjoy hardly any form of social and legal protection, predictable employment opportunities, housing subsidies, health support or pension. After the informal sector was first conceived of as problematic, it was later acknowledged as creating employment and generating income (Sethuraman 1981). Such a narrow understanding of two separate sectors which was dominant in the 1980s and 1990s, was extended to a perspective that underlined how closely coupled and connected the formal and informal parts of the economy are (Castells/Portes 1989). It became more and more obvious how intertwined both sectors in reality are. For instance, (informally) occupied employees without legal contracts can work in formally registered companies. Or production steps from larger, formal enterprises can be outsourced to smaller, informally organised units. Essential mutual dependencies and relationships, e.g. between international textile groups and their employees or suppliers, are often highlighted. Such dichotomies typical for scientific discussions in the past have meanwhile broadened, and also the previous pure economic focus was widened thematically, e.g. nowadays including further socio-economic, political or cultural entities. Also, beyond a poverty perspective, the enormous contributions of the informal sector to not only to the national economy, but particularly for securing the income generation of low-income and less educated people can hardly be underestimated. The 'informality-formality continuum' (Roy 2005: 148), the 'degrees of complementary and supplementary informalities' (Altrock 2012: 176 f.) or the 'co-production by formal and informal actors' (Mitlin 2008: 14) are nowadays acknowledged (Sterly 2019).

In developing countries six out of every ten workers are on average absorbed by informal economy, putting the informal sector in a crucial role of the aggregated economy (Koff 2007, Dimas 2008). This underlines that larger parts of the national GDP is generated in the informal economy in developing countries. Additionally, the informal economy is not easy to measure, thus its contributions to value added, output and employment, etc. can mostly only indirectly estimated. Furthermore, the informal sector is just only one part of much wider, multiple forms, ways and dynamics of informality (Kraas et al. 2019).

Nay Pyi Taw – Capital of Myanmar: Urban planning and layout

According to the records of the Department of Urban and Housing Development (DUHD), the Myanmar government planned a special administrative city project in the middle part of Myanmar near Lewe and Pinyinman Townships in 2001. Sufficient land for the new city was acquired in July 2003. The earliest master plan included housing for about 5,000 inhabitants and its relevant socio-economic infrastructure (DUHD 2022). In 2003, ten ministries and larger housing projects were established, which were later, in 2008, increased to 55 ministerial buildings.

Nay Pyi Taw became capital and Union Territory of Myanmar in 2005, consisting of five newly built townships, namely Dekhina Thiri, Pobpa Thiri, Uttara Thiri, Zabu Thiri and Zeyar Thiri and three old urban core areas which formerly belonged to Mandalay Region, namely

Lewe, Pyinmana and Tatkone. Here, since generations, urban development took place within the context of the old connecting road between Yangon and Mandalay. In these traditional cores, formal and informal housing complexes and diversified economic activities are complementing each other, providing shelter and essential work opportunities for the people.

As Nay Pyi Taw is located in a very convenient strategic location in the middle part of Myanmar, it was equipped with good transport infrastructure, such as a main railway line and station, an international airport and a national bus terminal. Moreover, it is well connected via intra-regional transportation networks. A 1,000-bedded General Hospital, the Myanmar News and Television Center, a large Convention Centre, a sports stadium and adjacent facilities of international standard were constructed in and after 2007. In 2019, already a total of 798,142 inhabitants were living in Nay Pyi Taw (DoP 2022), mostly public servants. Most of the people are living in civic buildings and government staff quarters. Moreover, the government implemented 3,000 affordable housing units in Nay Pyi Taw which are finished to about 70%. Recently, the implementation of a National State Academy (NSA) Project with a National Comprehensive University and an International Comprehensive University was launched. The Ministry of Science and Technology announced that students passing the Matriculation Examination in 2022 can apply for admission to the University of Technology in Nay Pyi Taw. From the beginning onwards, Nay Pyi Taw was constructed based on internationally-oriented plans with a clear layout (Fig. 1). Recently also, an integrated comprehensive plan for Nay Pyi Taw's sustainable development vision 2040 was published, following the vision for the city to be "green, intelligent and smart".

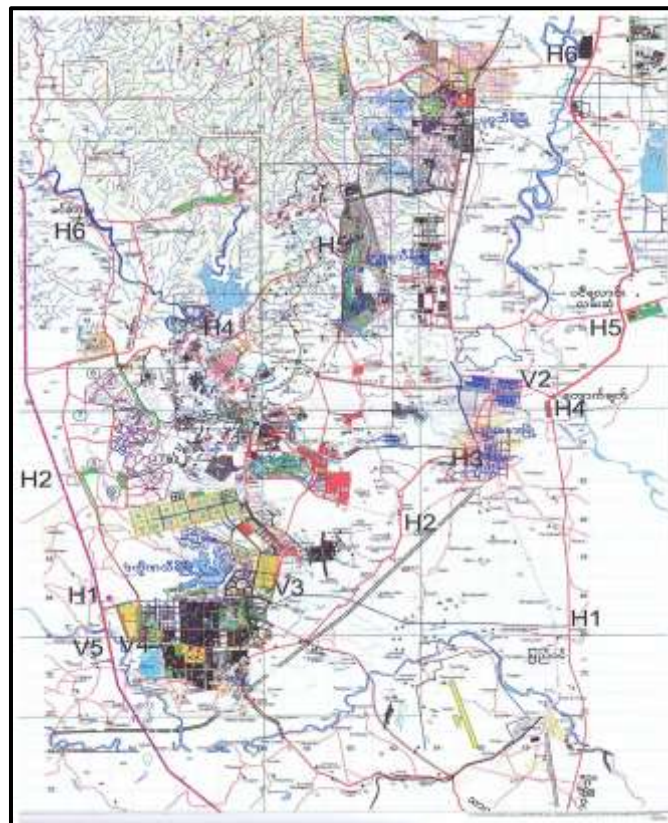


Figure. 1: The Layout Development Plan of Nay Pyi Taw

Source: Department of Urban and Housing Development, Ministry of Construction

Aims and Research Questions

Against the background of its special history as planned national capital – with substantial population in the old urban cores – the article aims at investigating in which way and to what extent informal housing and the informal sector were challenged by the Covid-19 pandemic and what kind of impacts of the Covid-19 pandemic can be found on the informal sector in Nay Pyi Taw. Based on the findings, suggestions for possible support to ease the situation of the local people and their livelihoods are developed. The guiding research questions are:

1. What role do informal settlements and the informal economy play in Nay Pyi Taw?
2. What are the main impacts of the Covid-19 pandemic on Nay Pyi Taw's informal economy and how has it changed?
3. Which suggestions and recommendations can be derived from the findings to ease the situation for the local people?

Material and Methods

The research is based, first, on a systematic literature study of recent national and international publications on informality, informal economy, urban street vendors and the impacts of the Covid-19 pandemic on urban informal economies. Second, available statistical data from the national and local administration on informal settlements, labour force and informal economy in Myanmar and in Nay Pyi Taw were collected and analysed. Third and predominantly, a qualitative approach using field observation, unsystematic talks and in-depth interviews in Nay Pyi Taw was applied in order to understand and evaluate the complex impacts of the Covid-19 pandemic on the informal settlements and economy. Here, knowledge, perceptions and evaluations of the local people on the impacts of the Covid-19 pandemic on the informal economy were collected. The cross-sectional qualitative survey was conducted between 1st June and 15th August 2022 with a survey and in total 25 in-depth interviews. Twenty interviews, all in Myanmar language, were made with informal workers and street vendors and five with urban experts (three with officers from the Nay Pyi Taw City Development Committee (NCDC), two from government residents in Nay Pyi Taw). During the interviews, careful note-taking, based on questionnaire forms, documented key statements were first compiled in Myanmar language, then translated into English. Quotes of interviewees are, as international standard, presented in an anonymized way, using abbreviations to distinguish the backgrounds of the interviewees, namely: "AO" indicates interviews with officers, "GR" with residents from government buildings, "SV" with street vendors and "IW" with informal workers. The interviews contained two parts, a) with general and related survey questions and b) with in-depth interview questions related to the research topic of the study. During the interview processes, the author used note taking that helped to remember the information and important data.

The quantitative questionnaire and qualitative guiding questions were developed based on literature and anchored in the conceptual framework of the study. The questionnaire includes five thematic parts (with altogether 44 questions), including demographic characteristic of the residents or migrants, reason for migration, expenditure of the informal workers and households, housing and living conditions and the impact of Covid-19 pandemic for informal workers. The

qualitative interviews were numbered with cipher numbers and codes (indicated with abbreviations behind statements and quotes).

Results and Findings

Informal Settlements in Nay Pyi Taw

According to an expert interview (AO.02), over 1,700 households in Nay Pyi Taw were living in informal settlements in 2020. Due to its rapid urbanisation, the fastly growing capital of Nay Pyi Taw on plenty of available land offers vast work opportunities, especially for street vending and transportation. Thus, Nay Pyi Taw is among one of the most attractive cities for migrants since its construction started in about 2003 (DUHD 2022). The informal settlements can mainly be found behind government housing units and near hostels. About 30 per cent of the migrants in the five new townships migrated there from the old three townships; they now often live in rented housing. Nearly 70 per cent of the migrants came from other states and regions. Currently, many more migrants from some of the conflict-affected areas moved to Nay Pyi Taw during 2021-2022 in order to seek opportunities for their livelihoods.

Labour and Employment in Myanmar

In the fiscal year 2019-2000, over 1,081 thousand persons were registered in 91 Labour Exchange Offices of the Department of Labour from different townships across Myanmar, including 18 in the Yangon branches and 73 in the other states and regional branches (MMSIS 2023). The characteristics of the labour force in 2019 can be summarised as follows (Table. 1): The composition of labour force in 2019 shows a clear concentration in the agriculture and agricultural procession sectors, followed by the construction sector and then the industry and services sectors. Myanmar still has a strong agricultural economy, with most of the people are living in rural areas and working in the agricultural sector. During the Covid-19 pandemic and the currently country's situation, people form rural and agricultural communities are facing disadvantages because of limited labour exchange, transportation barriers and high inflation rates.

Table 1: Labour Force Participation Rate, Unemployment Rate, Composite Rate Labour Underutilization and Employment to Population Ratio by Age Group

Age Group	Labor Force Participation Rate	Unemployment Rate	Composite Rate of Labor Underutilization	Employment to Population Ratio
15-19	25.8	1.9	9.1	25.3
20-24	67.8	1.2	5.4	67.0
25-29	79.4	0.6	3.6	78.9
30-34	77.8	0.3	2.8	77.6
35-39	76.6	0.2	2.7	76.5
40-44	74.7	0.1	2.5	74.7
45-49	71.3	0.2	2.5	71.2
50-54	65.9	0.1	2.1	65.8

Age Group	Labor Force Participation Rate	Unemployment Rate	Composite Rate of Labor Underutilization	Employment to Population Ratio
55-59	57.9	0.2	1.9	57.8
60-64	37.3	0.1	1.7	37.3
65*	13.8	0.2	1.5	13.7
Youth (15-24)	45.7	1.4	6.5	45.1
Working Age Population				
(15+)	59.4	0.5	3.3	59.1

Source: Annual Labor Force Survey 2019 (Myanmar Statistical Yearbook 2021; MMSIS 2023)

Informal Economy in Myanmar

According to data from the World Bank, Myanmar has 54.8 million people with a median age of 27.1 years. Life expectancy at birth is at 64.7 and 28.6 % of the population are children of 0-14 years, 65.6 % are working group people with an average age of 15 to 64 years (all data: 2021; World Bank n.d.). Because of this age composition, coupled with low proportions in the industry, many, especially young people, have limited access to the labour market. Two key events within the last 15 years triggered accelerated migration dynamics which were also affecting Nay Pyi Taw substantially, namely the Cyclone Nargis disaster and the Covid-19 pandemic.

Myanmar as one of the most disaster-affected countries, is exposed to multiple types of hazards, including cyclones, earthquakes, flooding, landslides and droughts. After Cyclone Nargis hit in 2008, hundreds of thousands of the disaster-affected people moved as migrants to the urban areas of Yangon and vicinity, especially to the industrial areas of Hlaing Thar Yar, Shwe Pyi Thar and Dagon Seikkan Townships in search for job opportunities and livelihood. Most found job opportunities in the informal economy. UN-Habitat estimates that nearly 300,000 migrants moved from the Ayeyarwady Region to the area of and around Yangon after Cyclone Nargis.

During the Covid-19 pandemic, 16 large garment factories were closed in Yangon in April 2020 during semi-lockdown and lockdown announcements (Brancati/Minoletti/Riambau 2020). Myanmar's GDP growth rate declined to 0.5 % in 2020. During this time, the workers' wages also changed, for example by measures of reduced overtime hours or performance bonuses. Employers expressed that they were paying a basic salary when the factory closed (ILO 2021). The International Monetary Fund (IMF) estimated a GDP decrease of 17.9 % in the fiscal year 2021 driven by combined economic and other factors.

In Myanmar, nearly 84.7 % of the workers are engaged in the informal economy and 56 % of the workers are self-employed or work in family business (ILO 2021). Many of them moved as migrant workers from, e.g., underdeveloped and remote areas, to more prosperous urban areas, including to Nay Pyi Taw. According to the interviews, different push and pull factors, combined with social reasons meshed. While before 2020 most of the migrants came from Yangon and central Myanmar. This migration accelerated during the period of 2019 to 2022. After 2021 many migrants came from unstable areas because of their livelihoods, health

care, education for their children, social and political security (SV.08). As Nay Pyi Taw offers plenty of land, has very good infrastructural assets and is well connected within the country's transportation networks, attractive factors encourage migrants to come to and live in Nay Pyi Taw. So do the many job opportunities.

The Government of Myanmar (GoM) and Nay Pyi Taw City Development Committee (NCDC) established night markets in Nay Pyi Taw between 2009 and 2013 and accommodated street vendors, but many do not have licenses for street vending. However, the vendors need to obey the market by law. They need to pay daily tax to NCDC (AO.01).

At the beginning of April 2020, GoM introduced domestic restrictions such as stay at home programs, work from home, semi-lockdowns in cities and towns and lockdowns for schools and workplaces including markets. So, Nay Pyi Taw's night markets had to be closed three times during the lockdown periods from September to November 2020, from 1st to 24th May 2021, and from June to November 2021. But all daily markets had been kept open with time limitations, especially shops with essential goods such as food, medicine or purified water. However, NCDC did not permit to keep shops open offering commodities goods. Restaurants were allowed to practice takeaway delivery. NCDC provided handwashing stations with soap and disinfection opportunities which they arranged at the entrances of the markets. They also supported essential information and established points for knowledge sharing of Covid-19 rules and regulations, for instance how to wear and remove masks properly (AO.02).



Figure. 2: Announcement for Myoma Night Market Hours by NCDC. Photo: Thaw Tar

GoM has issued and implemented a comprehensive program named “Overcoming as One: Covid-19 Economic Relief Plan (CERP)” on 27 April 2020. CERP focused on protecting lives, employment and income in Myanmar during the Covid-19 pandemic. It included seven goals and respective strategies: “To improve macroeconomic environment through monetary stimulus; reduce the impact on the private sector through improvements to investment, trade and banking sectors; reduce the impact on labour and workers; reduce the impact on households; promote innovative products and platform; improve healthcare systems strengthening and increase access to Covid-19 response financing (including Contingency Funds)”. These goals

were related to improve the macro-economic recovery, reduce taxes and give relief, credit and loan support for small and medium enterprises (SME). In addition, GoM contributed for households and workers such as the provision of up to 150 units for free electric consumption per month. This programme was extended until May 2021 and then finished (Ministry of Planning and Finance 2020). The interviews pointed out that cash and in-kind transfer are more useful and beneficial for households. In the same way, CERP assists a cash transfer to poor households but it is not easy to get this cash distribution. Households without have ID cards and census records cannot apply for the credit. In this point of view, the informal workers need to understand labour rights, rule and regulations. It was demanded that the respective authorities and CSOs should provide adequate knowledge sharing for the informal sector in this respect (GR.02).

During the Covid-19 pandemic, the lockdown and semi-lockdown restrictions including restaurants and food shops affected for food and vegetable vendors as an economically especially vulnerable group – though essential for the food supply of the entire population. It became evident that the customers changed their behaviour in ordering more goods and services online via phone apps and online shops. They also want to reduce their travel time, obey the Covid-19 restriction's regulation, avoid crowded places and enjoy e-commerce. Some consumers were willing to buy food and beverage from online sale markets. Thus, some of the street vendors transformed their businesses to mobile selling and they tried to sell their products, e.g. fruits, vegetables and other goods, to buyers online. Significantly, customers also enjoyed the food ordering process and bought from mobile vendors because it was easy to select based on criteria like fair price, availability, quality and convenience.

Most of the workers lost their employment and income, some received reduced wages (SV.05). So not only they individually but also their families do not have any incomes. Some are jobless and are facing hunger. So, many become street beggars, including women and children. They are willing to get credit or investment opportunities from the government or private sectors but it is not easy to get those for the time being. Very often CSOs and individual donors provide rice, food and clothes. One of the striking advantages in Nay Pyi Taw is the very good situation of health care facilities because the GoM provides public hospitals and clinics – and even workers and vendors can and do frequently visit them. So they can save enormous amounts of money instead of spending it in private health care facilities (Table. 2 and 3: Health care facilities in Nay Pyi Taw).

Due to the lockdown in Nay Pyi Taw, most of the food and vegetable sellers from the night markets and many of the daily wage workers became street vendors during the pandemic. They are now selling their product to customers near hostels, open and public spaces. Many are practicing mobile types of vending with motorcycles, Tuktuks and hand barrows. Many are street vendors for almost three years now but they still have no vending licenses. Many are requesting upgrading of facilities provided, e.g. waste disposal bins and storage facilities near their shops. The reason is that they are living in informal areas so some of their selling products and material are difficult to store and carry (SV.09). Apart from the fact that the lockdown was impacting their livelihoods, they do not want to move to other places as they said that Nay Pyi Taw is very convenient due to very good health care facilities and affordable education for their children. Even though they live in informal settlements they could get medical treatment from public hospitals and clinic. Most of them were fully vaccinated against Covid-19 at the time of the fieldwork.



Figure. 3 Women selling vegetables as significant contribution to the country's economy.
Photo: Thaw Tar

In interviews with daily wages workers (e.g. IW.10), it turned out that several people moved with their families from Yangon to Nay Pyi Taw about ten years ago. Many grew up or stayed in informal settlements in Nay Pyi Taw. Many got jobs in the service sector, e.g. as cleaners in ministries first, later applied for better jobs at the same ministry. Many migrants worked hard to improve their qualifications and incomes; their children passed the matriculation exams and want to work in the formal economy. They are realizing the benefits of the formal economy and want to get the same social protection and benefits such as pensions, housing subsidies etc. Many migrants lived in informal settlement first, where the water supply situation is very difficult as is the electricity supply. Many are using solar energy for lighting and receive water supply from the vicinity of monasteries. Many migrants raise worries in respect to the situation of higher education because there are, apart from Yezin Agricultural University, the University of Veterinary Science and the University of Forestry and Environmental Science. There is no art and science universities or colleges of Higher Education yet in Nay Pyi Taw (IW.10).

Some street vendors and workers voluntarily undertook a transition from the formal to the informal economy because of the good income opportunities (IW.02). One person mentioned that he decided to leave his former employment in the formal sector as upper divisional clerk (with an income of 198,000 MMK per month and government-provided housing) before the Covid-19 pandemic. After his transition to the informal economy, his income as self-employed person rose to between 15,000 and 20,000 MMK per day. The costs for rental housing only was 50,000 MMK per month. When the GoM ordered the Covid-19 restrictions and lockdown instructions for all workplaces in April 2020, he started to face problems such as the access to market was very limited for all people due to the travel restrictions. Difficulties to get raw material from suppliers. Also it was difficult to apply for SME loans from the GoM. Sometimes, respondents underlined that they want to participate in the government activities to return to formal jobs.

Housing and Quality of Life

According to an urban expert (AO.03), the quality of life in Nay Pyi Taw is on high level. The environmentally friendly and livable city offers technically up-to-date hard and soft infrastructure, institutions and stakeholder participation as we as an educated clientele with creative, aware and educated mindsets. As Nay Pyi Taw is a safe and less crowded city compared to Yangon and Mandalay, some people bought plots for a second home. Thus with rapid urbanisation, land prices doubled and a lot of land speculation occurred particularly during 2021 and 2022. So, the respective departments need to control and regulate the planning guidelines. Interviewees further mentioned that Nay Pyi Taw recently offers less job opportunities, mostly for street vendors and construction workers. The expert raised the demand that the GoM should undertake further development opportunities for residents as the city already implemented an industrial zones, hotel zones and numerous MICE infrastructures. During the Covid-19 period, some of the construction works and hotel services were closed. Quality of life is also affected by contrasting experiences: GR.01, e.g., mentioned controversies with residents from informal settlements behind their housing units because of insufficient water supply and waste management in the informal settlements. While most of the food vendors can be found there, customers and sellers should be more aware about food hygiene and related issues. Further, serious health worries for the informal settlement areas were raised. Health education was explicitly mentioned in order to lift the general health levels and food safety for their agricultural products.

Consequences of the Covid-19 Pandemic: Potentials and Constraints

Apart from the already mentioned consequences, further specific potentials and constraints because of the consequences of the Covid-19 pandemic were mentioned in the interviews.

Development Potentials

- The pandemic has raised substantially the awareness on the importance of food security for all. As the suppliers tried to promote their products via different online channels and established delivery systems with suitable prices, with emerging supply also job opportunities were created. Likewise, as the suppliers promoted their products or goods as fresh, they became more accessible and affordable for all communities, creating a win-win situation for both sides. But also food ordering patterns slightly changed during the Covid-19 pandemic as many customers changed their behavior from ordering food to preparing food by themselves.
- During the Covid-19 pandemic, gender roles in the work places and processes started to change, as was mentioned several times. Women were able to work more independently and use their skills from home, they can offer self-prepared food and sell it online.

Constraints

- For many residents in informal settlements, it was difficult to get the necessary financial capital for small and medium enterprises (SMEs) (GR.02).
- As the inflation rate increased, partly day by day, adequate access to credit was lacking (GR.02).
- The same held true for adequate investment opportunities (SV.05).
- Due to lockdowns and restrictions the municipal services, especially for informal settlements and informal workers decreased, such as the water supply or the electricity and waste management (IW.10)
- Further, the public transportation system was neglected and has difficulties to rejuvenate – due to limited customers and growing wishes to travel self-independently (IW.02)
- Due to restricted and decreased transportation, street vending had to expand and required suitable space for storage facilities (SV.09)
- Also some interviewees mentioned the raise of domestic violent, especially against women and children in the informal settlements, during the Covid-19 Crisis (IW.09)

Discussion, Suggestions and Recommendations

Based on the field survey and interviews, the following suggestions and recommendations can be made which shall assist and support the people in the informal settlements and the informal sector and can help easing their livelihoods. First, the focus is on general requirements of informal settlements and the informal economy, second on specific needs of street vendors in the informal economy in times of the Covid-19 pandemic.

- The government should consider and decide to equip street vendors with sufficient potable water and electricity supply as well as appropriate drainage and services (according to GR.01).
- NCDC as well as the city's municipal body is one of the responsible institutions for street vending, so NCDC needs to review and monitor the street vending activities in respect to, e.g., food safety, location, time and obstruction to traffic (according to AO.03).
- The authorities and communities need to provide more small business and social support facilities such as suitable market places for street vendors (according to SV.05).
- Capacity enhancement and knowledge sharing for street food safety and food hygienic practice as essential for improved food preparation processes need to be taken into account in order to reduce the danger of food-borne diseases for communities (according to GR.01).
- A proper monitoring of the informal economy is needed. The authorities should listen to the essential needs, different voices or the perspectives of those who are working in the informal sector (according to IW.12).
- The authorities should invite representatives from the informal settlements in order to jointly develop inclusive policies. The representatives from street vendors and informal workers should be encouraged to participate and engage in dialogue discussions with the local government or authorities (according to AO.03).

- Academics and researchers should be encouraged to conduct more surveys and research investigations on and for the informal economy and the informal settlements in order to understand the special needs and to develop adequate responses and concrete suggestions for their social protection, labour rights, training and capacity building for their livelihoods (according to GR.02).
- The informal workers should collaborate and cooperate with the local government, NCDC and the authorities. Active participation and engagement are important for all level of decision-making processes. So, the street vendors, entrepreneurs and informal workers should build good communication bridges between the local authorities and them because this may lead to constructive exchange to reduce burdens in different stages (according to IW.02).
- Street vendors and food sellers should practice food hygiene processes, i.e. they should be aware not only cook, prepare, and store food, but to use safe raw material. Further, waste should be disposed into garbage containers (according to GR.01).
- Both customers and sellers should wear masks and obey the Covid-19 instructions and related policies (according to AO.02)

Conclusion

This study emphasises the impacts of the Covid-19 pandemic on the informal settlements and informal economy using primary data form in-depth interviews and survey conducted (marked as IW, SV, AO and GR) in Nay Pyi Taw. The finding reveal how the informal sector has been affected by the consequences of the Covid-19 pandemic. The impacts, however, show various specific challenges in respect to income and expenditure, working hours, employment status, location and livelihood of the informal sector in Nay Pyi Taw. According to interviewees, the GoM provided some cash transfers to low-income families but there were limitations. Kinds of social assistances (both as cash- and in-kind transfer) are effective tools for a government for a positive intervention during the Covid-19 pandemic. It is possible, however, that the GoM and civil society organisations may need to contribute in cash-based programs and as in-kind programs and tax breaks for short periods. It is also recommendable that the GoM should consider long-term business performance and competitiveness for an adequate private sector participation. Without support to the low-income families and the informal sector increasing poverty due to the Covid-19 pandemic will become widespread. The GoM, local authorities and the private sector should cooperate and, for instance, design vocational training programs that provide technical assistance for market-based training to support the livelihood of people in the informal sector. Such programs should especially be targeted to the youth, to women and people with handicaps and for persons from the informal sector. Furthermore, specific programmes are needed to adequately improve the potentials of the existing hotel zone and the industrial complex. A special street vendor registration scheme could be established throughout the country.

Appendix

Table 2: Public Hospitals in Nay Pyi Taw (2015-2020)

Year	Specialist Hospital		Specialist Services		Others		Station		Total	
	No.	Scheduled Bed	No.	Schedule Bed	No.	Schedule Bed	No.	Schedule Bed	No.	Schedule Bed
2015-2016	4	2,000	5	1,700	7	325	7	112	23	4.137
2016-2017	4	2,000	5	1,700	7	325	7	112	23	4.137
2017-2018	5	2,050	5	1,700	6	275	7	112	23	4.137
2018-2019	5	2,050	5	1,700	6	275	7	112	23	4.137
2019-2020	5	2,050	5	1,700	6	275	7	112	23	4.137

Source: Department of Medical Services

Table 3: Availability and Utilization of Hospital Resources (absolute, average and percentage value)

Year	Total number of surgical operations	Average number of out-patient per day	Average number of in-patients per day	Average duration of stay (in day)	Percentage of occupancy based on available beds	Percentage of occupancy based on sanctioned beds	Averages turnover of patients per bed per year	Average turnover interval (in days)
2016	20,251	2.115	1.125	5.1	53	44	38	4.4
2017	23,423	2,138	1,154	5.3	545	46	37	4.5
2018	26,027	2,451	1,275	5.5	58	43	39	3.9

Source: Health Management Information System, Department of Public Health

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