

Urban-Rural Linkages in Times of Coronavirus Pandemic: Lessons from Musanze District in Rwanda

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Global Green Growth Institute Jeongdong Building 19F 21-15 Jeongdong-gil Jung-gu, Seoul 04518 Republic of Korea

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1. Introduction

Since December 2019, human life around the world has been put into turmoil due to the global spread of Coronavirus disease-2019 (COVID-19). The outbreak later resulted in worldwide disease transmission through the identification of infected cases and eventual deaths of a growing number of people. In the week starting January 13, 2020, the first cases outside of China was recorded in Japan and Thailand. Other than China, it is the United States of America, Italy, Spain, Germany, Iran and France that has been hit hardest by COVID-19. The United States of America had the most recorded cases in first few months of the outbreak, while nine months after the first recorded case, the United States of America, Brazil, India and Russia had the highest numbers of those infected with coronavirus. In nine months from the identification of first case, the world has identified almost 25 million individuals infected with COVID-19 and recorded more than 836,000 deaths.

The first case in Africa was recorded on February 14, 2020 in Egypt. In the East Africa region, Comoros, Burundi and Malawi managed to remain with no recorded COVID-19 cases in the first couple of months since the outbreak, while other countries such as Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, Sudan, Tanzania, Uganda, Zambia and Zimbabwe, reported their first cases in the first two weeks of March. All first cases were reported to be imported by residents or tourists arriving to countries by air. Rwanda recorded its first case on March 14, 2020.

Coronaviruses are named for the crown-like spikes on their surface and they have four main sub-groupings of coronaviruses, known as alpha, beta, gamma, and delta. Human coronaviruses were first identified in the mid-1960s. People around the world commonly get infected with human coronaviruses 229E(alpha), NL63(alpha), OC43(beta) and HKU1(beta) (CDC,2020). COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when

an infected person coughs or sneezes. COVID19's main difference with other coronaviruses is that it can be transmitted by infected people even before the early signs of disease become visible (WHO, 2020). Due to this important feature of COVID-19, in addition to closing their international borders, a number of countries have put into place additional restrictions on people's movement. In Rwanda, these measures that were introduced in March and further strengthened in April included the following: all employees of public and private businesses to work from home with restriction on unnecessary movements and visits outside the home, travel between cities and districts is suspended, public events and private gatherings (e.g., weddings) are not permitted, places of worship, tourism and recreation -such as cinemas, bars and restaurants were closed with exception of restaurants, which can only provide take-away services.

Educational institutions, at all levels, were closed while education is being provided through online systems for schools with such access. All of this raises questions about urban-rural linkages in times of pandemics, movement of people and goods, and what country specific lessons can be learned from this historically unique global experience.

In light of the above, the objective of this report is to provide a detailed assessment of urbanrural linkages in Musanze District in Rwanda, especially in the context of the current COVID-19 pandemic and measures that the Government of Rwanda put in place that are impacting the urban-rural flow of people and goods. This study discusses the implications of the COVID-19 pandemic and related measures on the use of local trade markets, local transportation, and workers engaged in those sectors in Musanze District, and how the pandemic might influence future planning, design, implementation and management of market trade related projects and programmes in the District.

2. Material and methods

In conducting the research for this report, a combination of material and methods has been utilized.

First, primary data was collected using surveys and semi-structured interviews. As part of the rapid needs assessment "Understanding Needs of Women Working at Markets in Musanze" authors of the report interviewed 40 market vendors from the Musanze District in January 2020 and engaged in exploratory discussion wherein questions were asked about their experiences at markets, before pandemics. In addition, 175 cyclists and pedestrians were interviewed in Musanze as part of an assessment on "Public Bicycle Sharing Possibilities in Secondary cities of Rwanda". While this an unpublished study, results were shared with the District of Musanze and also presented at the "Public Bicycle Sharing Regional Knowledge Exchange for African Cities Workshop" that took place in Nairobi, Kenya on the 10th October 2018. Furthermore authors of this report interviewed officials from national and local governments of Rwanda, as well as collected other primary data like photographs taken in Musanze District before and during the times of COVID-19 outbreak.

Second, the authors traced the ongoing developments related to the origin and global spread of COVID-19. This involved a day-to-day review of news, blogs, twitter posts and other online material on the developments related to COVID-19 from around the world. While that information was used for the introductory part of the paper, the authors used Rwanda's Ministry of Health public sources to trace and report on the outbreak development in Rwanda.

Third, document review was utilized in order to understand the recent developments in urbanization of Rwanda, especially Musanze District on the urban-rural linkages related sectors. Authors also reviewed global development agendas such as the New Urban Agenda to understand better the new approaches to urbanrural linkages issues.



Photo 1: Market vendors around main Kariyeri Market in Musanze before the pandemic, February 2020 @ Ilija Gubic

3. Importance of urban-rural linkages

Urbanization is a process that profoundly reshapes peri-urban and rural areas and has the ability to affect their economies, inclusiveness and sustainable development. In order for urban and rural areas to be sustainable, the current discourse of a political, social and geographical dichotomy must evolve to that of collaborative development and function linkages throughout the territory. Considering the ongoing urbanization, inequality and poverty globally, there is a renewed interest in delivering complementary and mutually reinforcing rural, peri- urban and urban areas. The interdependencies between urban and rural areas, their flows and functions are demonstrated through the local and national economic dynamics, social-cultural links and environmental synergies that occur across human settlements. These include financial remittances, access to food, migration, prevention and reduction of food loss and food waste, ecosystem services, goods, social services, transport, employment, energy and markets.

Given the global trend of economic growth in cities and towns, urban areas tend to draw the majority of domestic and international resources (public and private). This can have adverse effects on universal access to resources, services and opportunities, and warp the equitable distribution of economic and other benefits observed in the urbanization process. Balanced outcomes across urban and rural areas are a vital objective of sustainable development that leaves no one behind and should include investment in smallholders in rural areas. Rather than competing for scarce resources, the discourse needs to evolve towards understanding the synergies that can be obtained from sustainable, balanced investments and managing tradeoffs to achieve a shared destiny. Setting priorities and identifying the drivers could help reduce disparity throughout the territory (UN, 2015).

Cities without markets¹ are unthinkable. The presence of markets in the urban fabric is

essential for a city's prosperity and can help build a sense of community, civic identity and culture. The liveliness and continuous use of markets as a public good, leads to urban environments that are well maintained, healthy and safe. Therefore, since ancient times, markets have been a critical part of cities in civilizations around the world.

However, when it comes to the outbreak of a pandemic like in the case of COVID-19 that is spread by contagion, the use of markets (and other public open spaces) comes under question. Namely, as COVID-19 is transmitted by contact, droplets and fomites (WHO, 2020) markets where social interaction usually happens, are becoming points of concern. Use of markets in times of pandemics is usually regulated to prevent infection. For example, the virus is thought to spread mainly between people who are in close contact within two meters through respiratory droplets when an infected person coughs or sneezes (Centers for Disease Control and Prevention, 2020). In addition to close contact in markets, a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose or possibly their eyes. At markets, such surfaces and objects might be market stands, trash bins, public toilets and other facilities.

4. Results and Discussion

Limited guidance on the role of local governments with regard to tackling pandemics and the use of public open spaces such as markets calls for governments and development organizations to develop such information. This report provides contours of some of the key developments from Rwanda and its management of markets during the times of COVID-19 pandemics and is based on the lessons learned, with a list of emerging perspectives on this issue. Conclusion and recommendations from this report could be further developed into guidance for local government on use of the markets, and more broadly public spaces, in times of health crisis, such as COVID-19.

4.1 COVID-19 pandemic and cities

Many global leaders in their respective speeches, have termed the COVID-19 pandemic as the biggest challenge faced by humanity since the World War II. These statements underline the gravity of the situation posed by the COVID-19 pandemic to national governments and their leaders in tackling this unprecedented challenge.

As COVID-19 started to spread around the world, most of the countries have closed their international borders in efforts to block the spread of this life-threatening disease; such measures have been replicated in other countries worldwide. In the same vein, various countries have put major restrictions on domestic and local travel. Rwanda's borders were also closed (Table 1) for more than 2 months, as such this had a major impact on Musanze District.

These steps have been taken by national governments because earlier experience had shown that international travel and cities played an important role in the spread of infectious diseases. The Health Report on Urban Health noted that, "increased international travel and migration have resulted in cities becoming important hubs for the transmission of infectious diseases, as shown by recent pandemics such

as H1N1 and Ebola virus" (WHO & UN-Habitat, 2016). The rapid spread of COVID-19 highlights the impact that urbanization and globalization could have on pandemics where it is easier for pathogens to be carried from one city to another within and across national borders. The twin processes or urbanization and globalization fuel the spread of pandemics, and thus quickly exacerbate the impact of most outbreaks, such as COVID-19.



Photo 2: Market vendors in Musanze practicing safe distancing by occupying green public space around the Kinigi Market, May 2020 © Ilija Gubic

5. Case Study: Urban-Rural Linkages in Musanze District

With a population of close to 13 million, and an annual growth rate of 2.86 percent, Rwanda plans to position itself as a climate resilient, low carbon, low unemployment, poverty reduction country, with a strong services sector by 2050 (Rwanda Green Growth and Climate Resilience Strategy, 2011). With one of the highest annual urban growth rates - an estimated 4.5 percent. the country is planning for an increase of its urbanization rate from 18.4 percent to 35 percent by 2024 (Ministry of Infrastructure, Rwanda's Economic Development 2019). and Poverty Reduction Strategy (2013-2018) identified six secondary cities as potential poles of urban growth to reduce migration to the capital city, Kigali, and develop opportunities in Rwanda's mostly border cities accounting for a guarter of the urban population (Ministry of Infrastructure and GGGI, 2016). National Land use Development Master Plan 2020-2050 also provided the future urbanization prospects, where Musanze, Rubavu, Rusizi, Nyagatare, and Huye will continue to develop as secondary cities with populations between 450 to 650 thousand people. As the rural urban phenomenon cannot be eliminated, the plan therefore is to direct urbanization towards healthy cities with several hundred thousand inhabitants (NLUDMP, 2020).

Kigali and Rwanda's secondary cities: Huye, Muhanga, Musanze, Nyagatare, Rubavu and Rusizi are currently revising their master plans in response to rapid growth and resultant pressure in urban infrastructure and services. The master plans are designed to achieve green urban development based on green city concepts. Given the rapid urbanization in Rwanda and fast-tracked economic development of Kigali and secondary cities and other emerging urban centers², the link between rural and urban areas is becoming increasingly important for Rwanda's sustainable development.

Recognizing the importance of integrated development of urban, peri-urban and rural areas, the Ministry of Infrastructure and the Global Green Growth Institute (GGGI) are supporting Rwanda's Districts in understanding the nature of urban-rural linkages on the ground and to provide a pathway for implementing District Development Strategies (DDS) 2018-2024³. To successfully implement the DDSs, Rwanda's Districts should be harnessing the combined potential of both urban and rural settings that their combined synergy generates, so that everyone benefits from the circular flow along the urban-rural continuum.

5.1 Assessment of Urban-Rural Linkages in Musanze District

Musanze District, in the Northern Province of Rwanda is strategically located in the foothills of the Virunga chain of Volcanoes, national park, and is attractive to tourism, business and agriculture investments. With reference made to the updated population results from the Ubudehe Profiling System managed by Local Administrative Entities Development Agency (LODA) related to demographic features of Musanze District, the latest population counts 406,485 people living in Musanze District, while Musanze city has 154,406 people (Ubudehe Profiling Data, 2018) with an urban population growth rate of 1.8% (National Roadmap for Green Secondary City Development, 2015). In 2050 the population is projected to be 861,500 for the District, while 474,000 in the city⁴.

This report examines urban-rural linkages of Musanze District in regard to the flow of people, capital, food and other goods, employment, between urban and rural areas. This report would also examine urban-rural partnership as the mechanism of co-operation that manage linkages

These emerging urban centers include; Kamonyi in southern province, Bugesera and Rwamagana in the Eastern Province

DDSs 2018–2024 are layout guidance for Rwanda's 30 districts to achieve their development vision and objectives, Vision 2020 and Vision 2050, emphasizing strategic interventions to implement the current NST 1. DDSs were the result of a year-long consultation process reviewing what remained from the 2013–2018 District Development Plan and developing new strategic interventions. While for 24 Rwandan districts the Ministry of Local Government (MINALOC) hired consultants to facilitate discussions and draft strategies, in Rwanda's six secondary cities, Global Green Growth Institute seconded its technical district assistants to facilitate discussions.

Current Master plan of Musanze City 2020 being revised uses 474,000 as a projected number of urban dwellers.

to reach common goals and enhance urban-rural relationships, namely partnerships of public and private sector, development organizations, civil society organizations, and other stakeholders.

The assessment of urban-rural linkages in Musanze District is based on a review of the District Development Strategy 2018-2024, draft Master Plan 2050 as well as previously conducted studies by GGGI with partners. Namely, in 2018 GGGI conducted a city-wide survey in Musanze District to assess Public Bicycle Sharing (PBS) possibilities⁵. The assessment provided information on the origin-destination routes and traffic volume to inform the design of the Public Bicycle Sharing programme. GGGI also carried out participatory mapping exercise with the key stakeholders to prepare a pilot area with defined docking stations (GGGI, 2018). In 2019, the Rwanda Housing Authority (RHA) and GGGI in partnership with the University of Rwanda and Rwanda Women's Network surveyed citizens on public open spaces and then mapped them and provided a technical assessment "Mapping Public Spaces to Inform Master Plan Revision for Rwanda's Secondary Cities"6 (RHA & GGGI, 2019). Following the mapping of public open spaces in Musanze District, where markets are mapped and assessed, the Ministry of Infrastructure, GGGI and Rwanda Women's Network conducted a rapid assessment on the needs of women working at markets (GGGI, 2020). The rapid needs assessment report provided recommendations on actions to be taken in order to facilitate easier work of women at markets.

This assessment of urban-rural linkages will also look at the impact of COVID-19 pandemics as certain measures on public transport, and access to public spaces such as markets were put in place (see Table 1).

Table 1: COVID-19 related developments in Rwanda (source: Compiled using data from official announcements by the Government of Rwanda since the first announcement by Prime Minister on COVID-19).

Date in year 2020 March First announcement by the 6 Prime Minister on COVID-19, informing on establishing a multidisciplinary team to assess and strengthen preparedness and response to potential epidemic; calling citizens to practice behaviour that would prevent epidemic. March Rwanda Biomedical Center put in place a special COVID-19 epidemic and response team. March Ministry of Health reported 14 the first COVID-19 case: an Indian citizen coming from Mumbai, India on March 8, reported himself at the health facility on March 13. Unnecessary movement to be avoided and public transport not to be overcrowded. March Ministry of Health reported 4 15 new cases, 1 of them with no recent travel history. Places of worship closed. March Two additional cases reported by the Ministry of Health. Both, public and private schools and higher education institutions closed. March Ministry of Health reported 1 additional case detected at the airport upon arrival.			
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The project aimed to carry out assessments in preparation for a sustainable mobility project, not only to assess the feasibility of the implementation of the pilot project, but also the potential return on investment and cost benefit analysis considering the ability of earning income as well as saleable credits. https://gggi.org/gggi-rwanda-team-conducts-city-wide-surveys-to-assess-public-bicycle-sharing-pbs-in-secondary-cities-ofrwanda/

To access the full study on public spaces in Rwanda's secondary cities, please follow the link: https://gggi.org/gggi-releases-mapping-ofpublicspaces-to-inform-master-plan-review-for-secondary-cities-in-rwanda-assessment/

Date in year	Instructions	Rwanda: Total cases
2020 March 20	All commercial flights in and out halted. Ministry of Health	(cumulative) 11
March	reported on 6 new cases. COVID-19 test kits from	17
21	support from private sector in China (Alibaba Group) arrived in Rwanda. Ministry of Health reported no new cases. With written announcement, Prime Minister of Rwanda banned unnecessary movement and visits outside the home and traveling within cities not allowed ⁷ . Motorbikes not	
March	allowed to carry passengers. Preventive measures in force:	17
22	no access to public open spaces, unless essential. Ministry of Health reported 2 additional cases from UAE.	
March 23	Ministry of Health reported 17 additional cases 16 of them being travelers from UAE, Kenya, USA, Qatar, and India with 1 case being a contact of a previously confirmed positive case	36
March 24	Ministry of Health reported 4 additional cases of travelers from Dubai, Belgium and a contact of a previously confirmed positive case.	40
March 25	Ministry of Health reported 1 additional case from Dubai.	41
March 26	Ministry of Health reported 9 additional cases, 7 of them being travelers from Dubai, USA and Netherlands with 2 cases being contacts of previously confirmed positive travelers.	50
March 27	Ministry of Health reported 4 additional cases of travelers from Dubai, USA and 2 contacts of a previously confirmed positive travelers.	54

Date in year 2020	Instructions	Rwanda: Total cases (cumulative)
March 28	Ministry of Health reported 6 additional cases of travelers from Dubai, USA and 1 contact of a previously confirmed positive traveler.	60
March 29	Ministry of Health reported 10 additional cases of travelers from Dubai, South Africa, Nigeria and East Africa.	70
April 1	 Shops and markets toremain closed except those selling food, medicine (Pharmacies), hygiene and cleaning products, fuel and other essential items. Motos are not permitted to carry passengers but may offer delivery services. Borders remain closed, except for goods and cargo as well as returning Rwandan Citizens and legal residents. Travel between different cities and Districts of the country is not permitted. Except for medical reasons or essential services. Transport of food and essential goods will continue to function. Restaurants and cafes will continue to only provide take-away service. 	82
April 17	 Farming will continue in preparation for the ongoing agricultural season B while observing guidelines from health authorities. Borders remain closed, except for goods and cargo as well as returning Rwandan Citizens and legal residents 	138

Date	Instructions	Rwanda:	Date	Instructions	Rwanda:
in year		Total cases	in year		Total cases
2020	Travel between different	(cumulative)	2020	Services to remain closed	(cumulative)
	cities and Districts of the			Public and private transport	
	country is not permitted.			between different	
	Except for medical reasons			provinces and City of Kigali	
	or essential services.			are not permitted	
	Transport of food and			 Motos and bicycles are 	
	essential goods will			not permitted to carry	
	continue to function.			passengers but may carry	
	Shops and markets to			goods and continue to	
	remain closed except those			offer delivery services.	
	selling food, medicine			Borders remain closed,	
	(Pharmacies) hygiene and			except for goods and	
	cleaning products, fuel and other essential items.			cargo as well as returning Rwandan Citizens and	
	 Motos are not permitted to 			legal residents. Meetings	
	carry passengers but may			in public spaces and mass	
	offer delivery services			gatherings are prohibited.	
April	 All resumed services to 	225		gatherings are prombited.	
30-	adhere to health guidelines	223	May	 Movements are prohibited 	297
May	from the Ministry of		18	from 9pm to 5 am except	
,	Health (hand hygiene,			with permission.	
	mask wearing and social			Services to continue	
	distancing).			 Public and private transport will continue within the 	
	Movements are prohibited			same province, however	
	from 8pm to 5 am except			transport between different	
	with permission.			provinces and City of Kigali	
	Services resumed			remain closed. This is to be	
	 Public and private business 			resumed by 1st June 2020.	
	to resume with essential			Services to remain closed	
	staff while other employees			 Motos and bicycles are 	
	continue to work from			not permitted to carry	
	home. Markets to open			passengers but may carry	
	for essential vendors			goods and continue to	
	not exceeding 50% of registered traders.			offer delivery services.	
	 Public and private transport 			Regular moto services shall	
	to resume within the same			resume on June 1st, 2020.	
	province.		June 2	Services to continue	384
	 Bus operators to ensure 			Public and private business	
	passengers maintain			to resume with essential	
	social distancing and only			staff while other employees	
	passengers will masks will			continue to work from	
	be allowed onboard.			home.	
	Manufacturing and			Motos are permitted to carry passengers except in	
	construction sectors			carry passengers except in Rusizi and Rubavu Districts.	
	to open with essential			Nusizi and Nubayu Districts.	
	workers only.				

Date in year 2020	Instructions	Rwanda: Total cases (cumulative)	Date in year 2020	Instruc
	 Public and private transport between provinces shall resume except movement to and from Rusizi and Rubavu Districts. Transport of goods and cargo will continue with no more than two people onboard. Services to remain closed Borders remain closed, except for goods and cargo as well as returning Rwandan Citizens and legal residents Public transport within Rusizi and Rubavu District is closed. 		June 30- July July 15	Service Me ca in loc Service Bo ex ca Rv res Moven shall re and fro for good prohib Service
June 16	 Domestic and international tourism for visitors travelling with charter flights (individuals and groups) will resume. Hotels to resume operations and encouraged to participate in domestic tourism promotion and offer conference services. Public and private transport between provinces shall 	636		 Pla ma up au Ma zo Service Bc ex ca Rv
	resume except movement to and from Rusizi and Rubavu Districts. Transport of goods and cargo will continue with no more than two people onboard. Services to remain closed. Borders remain closed, except for goods and cargo as well as returning		July 29- August	• Puto state con hor Ka
	 Rwandan Citizens and legal residents. Public transport within Rusizi and Rubavu District is closed. 		August 14	• Put to 50 ottle to rot

Date in year 2020	Instructions	Rwanda: Total cases (cumulative)
June 30- July	 Motos are permitted to carry passengers except in Rusizi and zones under lockdown in City of Kigali. Services to remain closed Borders remain closed, except for goods and cargo as well as returning Rwandan Citizens and legal residents. 	1025
July 15	Movement within Rusizi district shall resume but travel to and from the District (except for goods and cargo) remain prohibited. Services to continue Places of worship may resume services upon approval of local authorities. Motos are permitted to carry passengers except in zones under lockdown. Services to remain closed Borders remain closed, except for goods and cargo as well as returning Rwandan Citizens and legal residents.	1435
July 29- August	 Public and private business to continue with essential staff while other employees continue to work from home. Tourism will continue and Kanombe International Airport will reopen on 1st August 2020. 	1693
August 14	Services to Resume • Public and private business to continue not exceeding 50% of existing staff while other employees continue to work from home on a rotational basis.	2293

Date in year 2020	Instructions	Rwanda: Total cases (cumulative)
	 Motos are permitted to carry passengers except in zones under lockdown. Tourism will continue Services to remain closed Movements of goods and people within Rusizi shall continue but movements between Rusizi and other Districts remain prohibited. 	

5.1.1 Rapid Assessments of Markets in Musanze District

To further strengthen the work on urban-rural linkages, where markets are crucial points in the flow of people and goods, MININFRA and GGGI in collaboration with Rwanda Women's Network (RWN) conducted a rapid assessment on "Understanding the needs of women working at markets" in two markets in Musanze.8 The Musanze's DDS 2018 leading up to 2024, was prepared using a participatory approach, identified public spaces as one of a number of important socio-economic public assets that would be developed by the District, where markets as public spaces were highly prioritized. The strategy lists include Musanze's plans to design and construct modern markets and other selling points along main roads of the district to facilitate trade within the district. The rapid assessment also informed the ongoing revision of the "Gender Mainstreaming Strategy in Infrastructure Sector" previously developed and adopted in 2017 by MININFRA with support of GGGI9.

The rapid needs assessment report was done in January 2020 for the Kariyeri agricultural market in city center and agricultural market in Karwasa located along the road from Musanze District to Burera District. Both markets are Musanze District owned properties (infrastructure) and are run by the market's leadership committee, which is responsible for the day-to-day management of the markets. The vendors that work in both markets are mostly residents of Musanze District and were the key stakeholders involved in the study where 20 women working in Kariyeri market and other 20 in Karwasa market were interviewed.

The women that participated in the rapid assessment from both markets were involved in selling either agricultural products with the most traded products/goods being various types of fruits, potatoes, sweet potatoes, cassava, fresh maize, vegetables (tomatoes, carrots and onions), flour, rice, sugar, cooking oil; with a few selling fish and related products.¹⁰ These fresh agricultural products were found to be brought to Kariyeri market early in the morning by farmers to supply the market vendors in Kariyeri while in Karwasa market, the women sometimes transport their products by bicycle or by foot and then sell at a slightly higher price. In terms of income, an average earning per day was RWF 13,750 and RWF 10,725 for Kariyeri and Karwasa respectively with the highest reported at RWF 50,000 and lowest at RWF 1,000 based on factors of time seasons, which makes the women's livelihoods unstable and long-term planning is a challenge - especially when they do not have alternative sources of income¹¹.

After first recorded case of COVID-19, certain measures were put in place by the Government of Rwanda (see Table 1). It was on March 21, 2020 when the Government made the announcement that all shops and markets should be closed with the exception of those selling food,

GGGI's supports Secondary Cities of Rwanda in planning the distribution of economic growth, achieving the national urbanization target and supports poverty reduction, inclusive growth and job creation. In Musanze, GGGI facilitated the development of the District Development Strategy and supports Musanze city in revising its master plan. The Public Bike Sharing system is being piloted in Musanze, to support the city in promoting non-motorized transportation. GGGI also has its staff embedded in the District Government supporting the elaboration of Local Urban Development Plans. With Rwanda Housing Authority and other partners such as the University of Rwanda and Rwanda's Women Network, GGGI mapped public spaces in Musanze showing the underutilized potential of green open public spaces within the city

This rapid assessment report especially studies women's needs to further contribute to the inclusion of women in urban planning and other decision-making processes and use of the study to better understand gender mainstreaming in that infrastructure sector that GGGI has been continuously working with the Rwanda's Ministry of Infrastructure. For more information about GGGI's work on gender mainstreaming in infrastructure sector, please read: https://gggi.org/infrastructure-gender-mainstreaming-strategy-review-workshop-held-in-musanze-district/

Most products are from the District of Musanze. They are produced in local rural areas, for sale in the urban center. Most women working at markets are retailers, not farmers.

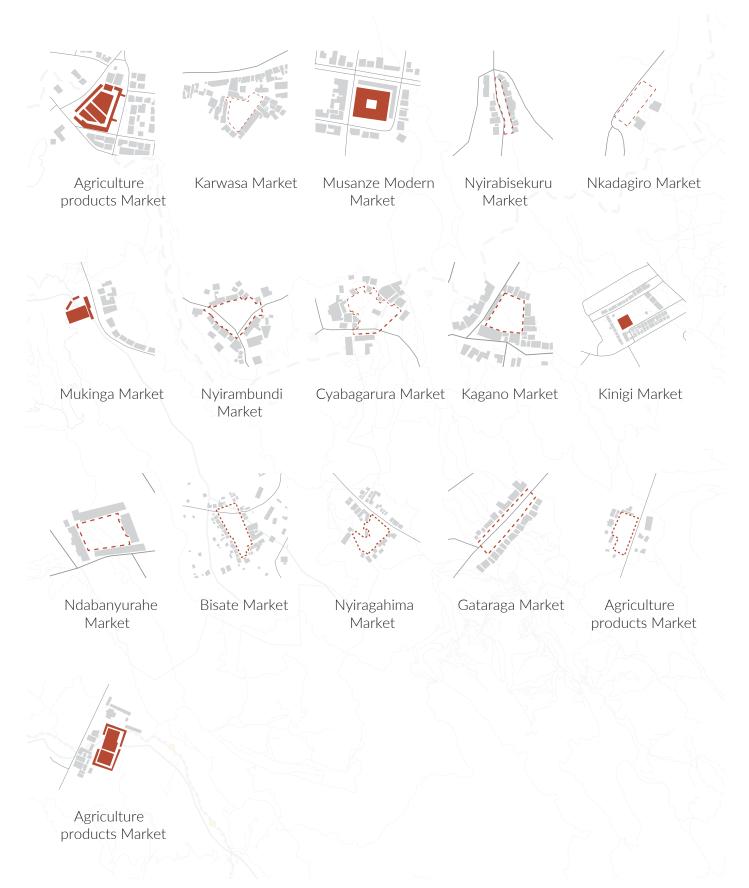


Illustration 1: Typology of Markets in Musanze District: The typologies show the existing infrastructure for the Markets in Musanze and their linkage to the neighboring areas as some are open air and others built-up structures along the main public infrastructure. This differentiates the needs each market area needs i.e. need for constructing modern markets and improving the facilities to improve the working conditions necessary ©Global Green Growth Institute.

medicine (pharmacies), hygiene and cleaning products, fuel and other essential items. After the announcement, Kariyeri market continued operating from 7 a.m. to 1 p.m. observing safety regulations such as social distancing maintaining at least 1 meter apart from other people and washing hands at entry. To avoid crowding within the Kariyeri market, Musanze District officials through joint action meetings allowed some of the market vendors to use the open space at Musanze's bus park to facilitate trade with regulations of keeping safe distance applied. Both markets kept operating in the same hours, however not all were renting the tables since the bus park open space did not initially have the facilities, therefore the sellers were dispersed on ground to achieve 1-meter distance from each other, while private company contracted by the District still collects the fees.

The assessment from January 2020 documented that most of the market vendors, majority women, do not have alternative sources of income (GGGI, 2020), preventive measures brought to fight COVID-19 pandemic are significantly influencing livelihood of market vendors, with no other means to support themselves and families during the COVID-19 pandemic. To manage the economic shocks that arose as a result of the COVID-19 lockdown, the government of Rwanda initiated a program to cater for the wellbeing of the citizens mostly the vulnerable through provision of basic needs. For the National level to successfully target the poor and most vulnerable, it was facilitated by its poverty mapping and profiling database locally known as Ubudehe which categorizes households according to their economic status. It's through this social protection framework that government was able to support families mostly affected by COVID-19 by first of all registering those reported to have lost jobs among the marginalized groups and casual workers and then using the decentralized system and other partners to ensure the distribution of the support (food and other needed items) was done efficiently. In terms of access to financial and information services, the rapid needs assessment report found that 50% of the women working at markets have bank accounts while the other half of respondents indicated limited capacity to open and run a bank account but rather use mobile money accounts same as those with bank accounts¹². However, the majority of the women said they access informal financial services through solidarity groups managed through their own mobilization, where money is contributed by members on a regular basis (daily and/or weekly), saved/lent to members and shared out by members on a monthly/annual basis. Women indicated not having received any formal training on savings/basic business management skills.

To avoid the current situation where market vendors have no other skills or alternative sources of income, it is suggested that the Government collaborate with development partners and other stakeholders to provide training in business management that could strengthen market vendor skills needed to expand their business opportunities or explore other alternative businesses leading to improved economic and social status for themselves and communities. This would boost their livelihoods after the outbreak and support their resilience to future disasters or shocks.

In terms of Water & Sanitation, the market in Kariyeri, was found to have access to water and sanitation facilities, and separate units to cater for the needs of men and women in the market, and unit vendors or visitors living with disability. A fee of RWF100 is paid for the services, per use. On the other hand, all of the women interviewed in Karwasa market shared that they do not have adequate sanitation facilities; what is available is limited in number, is very old and in bad condition. Similarly, the facilities are not separated to cater for the needs of men and women in the market. The current facilities do not have running water installed within them, thus, making it difficult especially for women and children.¹³

Prior to the first COVID-19 case recorded in Rwanda on March 14, 2020, the Government was stressing the importance of putting into practice hand hygiene and social distancing as effective methods to prevent the transmission of a potential coronavirus outbreak. Cities, towns

Due to the need of certain measures when applying to access loans, which is usually a limitation to women as might not be having property rights, etc. women tend using cooperative savings or solidarity groups where they can access loans without providing documents for back up paying off options. Results came from survey conducted in two markets in Musanze. More comprehensive data on the issue can be found in Rwanda's Financial Inclusion Strategy (2019-2024).

This statement is related to the water needed to operate the washrooms/sanitary facilities. The pit latrine or ecosan toilets were constructed without inbuilt water infrastructure.

and villages were practicing hand hygiene by putting water tanks and antibacterial soaps in front of shops, in public open spaces, and other areas. Markets in Musanze District also followed the advice and established hand washing stations, which are managed by the market management committee through providing water billed on the market water account and soap supplied from the collected fees received for hygiene and safety from vendors.

After COVID-19 reported cases in Rwanda and measures by the Government of Rwanda on March 21st, 2020, general modern markets and shopping malls in Musanze District were closed, while trade markets continued operating. Markets would need urgent reconstruction, especially toilets, as the rapid needs assessment report recommends "constructing a modern facility for Karwasa market including adequate sanitation and hygiene facilities to promote better working conditions, creating decent work and more job opportunities for women and other Musanze

residents" (GGGI, 2020) that would contribute to the public health and prevent any future outbreak in Musanze District.

Issues of improved water and sanitation should not be done only for Government owned infrastructure such as markets. United Nations Human Settlements Programme (UN-Habitat) recently shared a position on COVID-19 advocating for local authorities to work with communities to improve hygiene and sanitation (UN-Habitat, 2020), which in turn would prevent public health risks or slow down public health outbreaks.

This research was conducted in the markets of Kariyeri and Karwasa as well as in Byangabo, Kigasa, Gataraga, Cyabagarura, Kinigiand Musanze in Musanze District with various sellers in order to determine how the COVID-19 pandemic have affected their commercial activities and above all, their livelihoods (Illustration 1).

MUSANZE DISTRICT

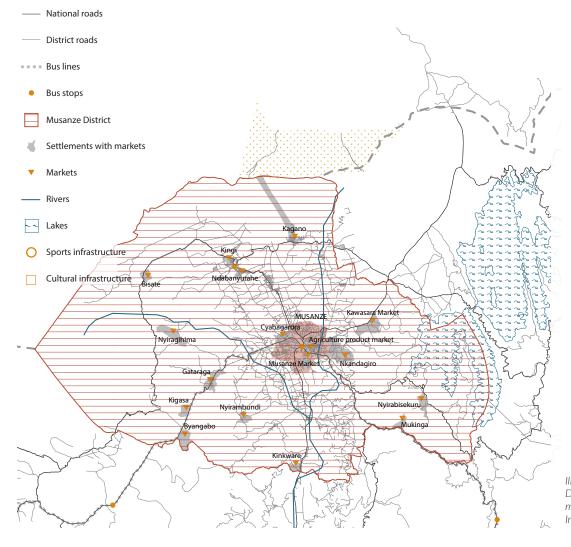


Illustration 2: Map of Musanze District with 16 mapped trade markets © Global Green Growth Institute

There are 3 markets located on the Kigali-Musanze-Rubavu Road hence many passengers would be stopping on the way to Rubavu or Kigali to buy food, especially fruits. Those markets are in Byangabo, Kigasa and Gataraga. Authors interviewed a fruits seller at the market in Byangabo who stated that, "Before the COVID-19 pandemic, she could generate as high as 100.000 RWF monthly income after paying taxes and other expenses related to her business". As she was selling fruits, considered as an essential good during the nation-wide quarantine, she was allowed to continue to operate. Yet, during the lockdown, her sales drastically decreased, managing to generate only 3000 RWF income in first two weeks of the lockdown. In addition to fewer people visiting the market, fruits, and other food items she had eventually perished which made her business unsustainable during the lockdown period. After the lockdown was lifted and the government set measures for markets to open for essential vendors not exceeding 50% of registered traders, she says that things are going back to normal slowly but people are not coming to the market as usual because they do not travel as it was before due to the increase of transport fares and the closure of the borders. Currently, she earns 40.000 RWF per month¹⁴.

Clothes and another non-food merchandise were not allowed to be sold during the lockdown. A clothes merchant in Musanze modern market said that before the lockdown, he was able to generate a monthly income of 350.000 RWF. During the lockdown, he stayed at home like the rest of market vendors not selling food or other non-essential items. Although the lockdown was lifted and interviewer can operate, he says that business is not running as previously since "people don't have money to spend on clothes nowadays". His profits decreased to the point that he cannot exceed 100.000 RWF per month. He also mentioned that he used to go to the Democratic Republic of the Congo to buy clothes that he sells at the market, yet due to the border closure, he is not able to expand his offer.

Musanze is also known for its large number of hotels, restaurants and lodges. Their suppliers are from the modern food market in Musanze city known as "Kariyeri market." One of the suppliers who supplies potatoes to a couple of the hotels



Photo 1: Market in Musanze during the lockdown in April 2020, where only shops with essential items such as food were allowed to operate.

©Andrew Kabera

in the city said that they are grateful for those hotels and their businesses was doing great before the COVID-19 pandemic came and could generate more than 500.000 RWF income per month.

During the lockdown, they were also allowed to operate but she says that they were not gaining any profit because those hotels, restaurants and lodges were closed. Their incomes reduced to 35% of their previous earnings. Following the communique on the 16th June 2020, where, "Public and Private transport between provinces was considered to resume except movement to and from Rusizi and Rubavu Districts." Domestic and international tourism for visitors travelling with charter flights (individuals and groups) was also considered to resume. Although hotels and restaurants are now allowed to operate, the supplier said that things are yet to return to normal because those hotels are not operating in full for them to buy potatoes in bulk but she said that it is not as bad as it was during the lockdown; she said that she can now get to a monthly income of 250.000 RWF.



Photo 2: Market at Cyabagarura with no main market infrastructure, May 2020 © Ilija Gubic

5.1.2 Rapid Assessments of Public

Transportation in Musanze District In Musanze District, 10.1% of citizens regularly use public transport, 51.3% use public transport often. 31.0% use public transport sometimes and the rest 7.6 % do not use at all public transport (Integrated Household Living Conditions Survey-4, 2013/14). By public transport we include motorbikes and buses. The District currently has no bus lines operating within the city or dedicated terminal. Citizens rely on bus lines operating from Kigali or Rural Sectors to urban centers within the District. By 2024, the District strategizes to have 5 bus lines, 5 bus terminals, and 18 kilometers of cycle lanes constructed to promote non-motorized transport (GGGI, 2019).

In 2018, GGGI conducted a study in Musanze District, a city-wide survey to assess Public Bicycle Sharing (PBS) possibilities.¹⁵ The assessment included an origin-destination route and traffic volume survey to inform the design of a PBS programme. As a planning practice, the team also carried out a participatory mapping exercise with key stakeholders i.e. bicycle cooperative,

private sector representatives, transport agency representatives, District business development staff, coordinator of women council at the District, citizens, civil society, hotels and private development sector managers and media. The participatory workshop developed a pilot area scheme for the PBS pilot system with defined docking stations with different capacities based on the demand of the area (GGGI, 2018). In Musanze district, only 10.6% of the population possesses bicycles, 0.4% has motorcycle while 0.8% have cars. This is far below the national level which is 15.8 %, 0.9% and 0.8% respectively for bicycle, motorcycle and cars (District Development Strategy, Musanze District, 2018).

To reduce the spread of coronavirus, the Government of Rwanda put in force several measures that led to the cessation of bus transport from Kigali to Rubavu via Musanze District on March 21, 2020. The measures read as: "Travel between different Cities and Districts of the country is not permitted, except for medical reasons or essential services. Transport of food and essential goods will continue to function". In addition, the same Prime Minister's announcement put into force a ban of all the rides with motorbikes stating "Motos are not permitted to carry passengers but may offer delivery services. Other public transport within cities will only operate for essential movements and with at least one-meter distance between passengers." The effect was immediately seen in Musanze District.

The rapid needs assessment on women working at markets that the Ministry of Infrastructure, GGGI and Rwanda Women's Network jointly conducted in January 2020 (GGGI, 2020), highlighted that most of the women vendors walk to the market while going to work and leave their homes by 6:00 a.m. The journey on average takes forty (40) minutes for those working in Kariyeri market and twenty (20) minutes for women in Karwasa market. At the end of the day, most of the women reach back home at around 8:00 p.m. and the majority indicated that they do not feel safe during this journey at night as most of the

The project aimed to carry out assessments in preparation for a sustainable mobility project, not only to assess the feasibility of the implementation of the pilot project, but also the potential return on investment and cost benefit analysis considering the ability of earning income as well as saleable credits. https://gggi.org/gggi-rwanda-team-conducts-city-wide-surveys-to-assess-public-bicycle-sharing-pbs-in-secondary-cities-of-rwanda/

rural roads do not have public/street lighting.16 The women also shared that the available means of public transport when returning home are motorcycles and bicycles taxis.¹⁷ The women from Kariyeri market use them occasionally with the highest transport fare per trip at RWF 1,000 and lowest at RWF 200 which can make as high as 10% of their average daily income at the market.

There is a need in the District for proper public transportation system connecting urban and rural settlements of Musanze District that would increase productivity and safety, especially for women working at markets. Having such a system in place would also increase livelihood opportunities along the transit corridors and enable a faster recovery of the District's economy. The District should also prioritize certain projects and programmes closely linked to the livelihoods of the most affected during the COVID-19 pandemic when implementing the District Development Strategy.

Women vendors typically walk home with all of their earnings from the day, hence additional fear. They do not save/deposit money in town, close to the market before walking home.

Further research could be done to map the areas where women working at markets live in order to better plan and strengthen connectivity/ 17 safe mobility.

6. Conclusions and Recommendations

6.1 Conclusions

This assessment done from March to August 2020, firstly as desktop research and later as a field study in Musanze District contributes to filling a gap through evidence-based documentation of experiences and needs of market vendors and other workers in Musanze District whose businesses depend on functional urban-rural linkages that were interrupted due to the measures put forward to limit the spread of the coronavirus. The assessment identifies the type of support (especially expected from the Government and infrastructure sector stakeholders) that could improve the quality of businesses and working environment for the market vendors once the pandemic is over.

Interviews with the market vendors demonstrate the wide spectrum of their experiences working in Kariyeri and Karwasa markets, also in Byangabo, Kigasa, Gataraga, Cyabagarura, Kinigi and Musanze including the know-how they have working in the markets. It has highlighted the kind of financial services available to vendors and support given by the Government for those affected by the measures put in place to reduce the transmission of coronavirus.

Women's burden of combining market work and childcare (especially for younger children) was apparent in this assessment. Such circumstances require more mental and physical exertion from women, and affects their productivity and stress levels which can lead to challenges with proper childcare management. From the study, it is clear that the market has a functioning leadership structure that helps to mediate conflicts and keep order in the market.

However, there is a limited number of women participating in a leadership role. It is evident that no mechanism is in place to address gender equality and inclusion related issues and women specific needs, which tend to be complex, normalized and perceived as private in nature.

The study reveals that women (as well as men) do not have access to mainstream financial services and that they have had no training in savings skills, business management or running a small-scale business. However, it is encouraging that women are self-organized and familiar with informal saving and loan operations.

6.2 Recommendations

Following the analysis and conclusions above and after interviews with the market vendors and other workers depending on urban-rural linkages for their business, the following recommendations should be taken by the Government and stakeholders in urbanization (infrastructure) multi-sector in order to further support small businesses at markets and others depending on urban-rural linkages that were heavily affected:

- 1. Promote the urban patterns for green economy, particularly working with nature, leveraging on density, clustering of competitiveness and optimizing infrastructure. For instance, investing in green infrastructure can provide the unifying framework for creating a continuum between the green elements of rural and urban landscapes. Ensuring a sustainable future for cities requires urban forestry, urban agriculture, horticulture, biodiverse gardens and parks, public space, and other disciplines to be strategically integrated. Modelling territorial and scenario analysis may help to understand how to work and live with nature.
- 2. Promote inclusive investment, finance instruments and systems to support both urban and rural areas and reduce the disparity in the provision of sustainable infrastructure and services between urban and rural areas (particularly in energy, transport, health, education, water, green spaces and sanitation).
- 3. Put security systems (including public lighting) in places on the main streets from market to rural areas to ensure the safety of market workers, especially women after

- market closure and as they go back to their homes at night;
- 4. Support and invest in women's potential by establishing linkages with banks for women friendly financial services in order to improve women's access to finance;
- 5. Construct a modern facility for Karwasa market including adequate sanitation and hygiene facilities to promote better working conditions, decent work and more job opportunities for women and other Musanze residents;
- 6. Invest in regular and adequate public transport to facilitate the movement of people and goods following recommendations on use of public transport in times of public health emergencies;
- 7. Implement vertical and horizontal evidence based interventions by public, private and civil society actors, which tackle food waste and loss. This should include multi-stakeholder dialogue to enable food recovery, redistribution and knowledge transfer; prioritization and coordination of interventions by governments, private sector and civil society; resource mobilization and infrastructure provisions through publicprivate partnerships; implementation capacity to address an increasing social demand; tools for monitoring and evaluation that provide guidance on food safety and quality (including human nutrition) and that capture further data on the four dimensions (availability, access, utilization and stability) of food and nutrition security.
- 8. Facilitate connectivity and low carbon mobility through the improvement of transportation networks and communication between urban and rural areas to allow universal benefit and access to quality public services, which tend to be concentrated in urban areas due to population density and economies of scale.
- 9. Strengthen city-region food systems through the inclusion of efficient and accessible markets and distribution systems in urban planning and design. In addition, promote urban and peri-urban agriculture involving technologies such as hydroponics, vertical farming and low cost/energy greenhouses that can serve as alternatives to bringing food producers closer to consumers. This will improve food security, nutrition and

- take into consideration the changing diets of urban populations as well as increase employment and income generating activities.
- 10. Reduce environmental impacts (including air and soil pollution) by protecting forests, water and water sheds, avoiding land fragmentation and defending ecosystems and biodiversity. Efforts should be made to use planned city extensions and infills, low-carbon and smart cities and other strategies that promote density and compact human settlements.
- 11. Investing in innovative and sustainable rural infrastructure should also be a priority, such as decentralized power networks based on renewable energy, long-lasting roads, well organized periodic services such as markets, health clinics, and long-distance education.
- 12. Prioritize concerns and experiences by women and men as integral part of the design, implementation, monitoring and evaluation with a modern facility that promotes their livelihoods and mainstreams gender infrastructure.
- 13. District Planning Unit to ensure that redevelopment plans for the markets are integrated in the District performance contracts to enhance and support urbanrural partnerships, in implementing the National Urbanization Policy, District Development Strategies, etc.

7. References

Centers for Disease Control and Prevention. (2020). Human Coronavirus Types. National Center for Immunization and Respiratory Diseases. Published online on 17/09/2020: t.ly/3bE3

Global Green Growth Institute. (2020). Understanding the Needs of Women Working at Markets in Musanze. Seoul: Global Green Growth Institute. Available online: t.ly/m66T

Government of Rwanda. (2011). Green Growth and Climate Resilience: National Strategy for Climate Change and Low Carbon Development. Kigali: Government of Rwanda. Available online: t.ly/A6B4

Government of Rwanda. (2013). Rwanda's Economic Development and Poverty Reduction Strategy 2013-2018. Kigali: Government of Rwanda. Available online: t.ly/3llm

Government of Rwanda and Global Green Growth Institute. (2015). National Roadmap for Green Secondary City Development. Seoul: Global Green Growth Institute. Available online: <u>t.ly/SI1K</u>

Government of Rwanda. (2020). National Land Use Development Master Plan 2020-2050. Kigali: Government of Rwanda. Available online: t.ly/ggFT

Ministry of Infrastructure and Global Green Growth Institute. (2017). Gender Mainstreaming Strategy for Infrastructure Sector. Kigali: Ministry of Infrastructure

Musanze District. (2018). Musanze District Development Strategy 2018-2024. Kigali: Government of Rwanda. Available online: t.ly/jEqm

Musanze District and Surbana Jurong. (2020). Revision of Masterplans and Development of New Green Conceptual Detailed City Development Plans for Six Secondary Cities of Rwanda. Interim Report.

Office of the Prime Minister. (2020). Statements on Cabinet Decisions. Kigali: Office of the Prime Minister. Available online: t.ly/piMg

Rwanda Housing Authority and Global Green Growth Strategy. (2019). Mapping Public Spaces to Inform Master Plan Revision for Rwanda's Secondary Cities. Seoul: Global Green Growth Institute. Available online: t.ly/rVCB

Rwanda Land Management and Use Authority. (2020). National Land-Use & Development Master Plan 2020-2050, Integrative Report. Kigali: Rwanda Land Management and Use Authority. Available online: t.ly/xaiY

United Nations. (2015). Habitat III Issue Papers, 10 – Urban-Rural Linkages. New York: United Nations. Available online: t.ly/bOVg

United Nations Human Settlements Programme and World Health Organization. (2016). Global Report on Urban Health: Equitable Healthier Cities for Sustainable Development. Geneva: World Health Organization. Available online: t.ly/hXww

United Nations Human Settlements Programme. (2020). Key messages on COVID-19 and informal settlements. Published online on 13/05/2020: t.ly/Omk7

World Health Organization. (2020). Coronavirus overview. Published online on 17/09/2020: t.ly/W7q9



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