

Learning from Resilience Strategies in Tanzania

An outlook of International Development Challenges



Pascaline Gaborit and Donath Olomi (Eds)


PETER LANG

Tanzania has been considered a model for development, peace, and stability despite the arrival of refugees from neighboring countries and the potential tensions related to climate change. Although it has accessed the rank of middle-income country, Tanzania still faces several challenges, particularly in the wake of the Covid-19 pandemic. The book aims at analyzing these challenges as well as the country's successes through a multi-disciplinary approach considering economic perspectives as well as conflict prevention, dialogue integration, climate change adaptation, forests' protection, and social perspectives – especially relating to women and girls.

The current Covid situation has shaken the whole world and raised many questions on how the different regions and countries could adapt and develop resilience strategies in an uncertain and ever-changing context. Therefore, the book is not only about Tanzania but also about what we can learn from the research on Tanzania in terms of vulnerabilities and resilience strategies. This book is an outlook of International Development Challenges.

This book is a collective book gathering more than twelve multi-disciplinary and experienced authors and co-authors. It is edited by **Dr. Pascaline Gaborit**, researcher, co-founder and director of Pilot4dev www.pilot4dev.com and **Dr. Donath Olomi**, director of IMED Institute of Management and Entrepreneurship Development.

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Introduction Chapter

PASCALINE GABORIT PHD

“There is hope in every African village” Bertrand Ginot Co-Founder Pilot4dev

This chapter is the introduction from a multi-faceted collective book, gathering multi-disciplinary research and analysis of several researchers. It approaches the different resilience strategies in Tanzania, in the wake of the COVID-19 pandemic. This collective research considers theoretical concepts such as resilience, gender equality, conflicts prevention and climate change.

Tanzania has been considered a model for development, peace and stability despite the arrival of refugees from neighbouring countries, and the potential tensions linked to the economy or to climate change. Although it has accessed the rank of Middle-Income Country, the country is at a crossroad still facing several challenges. The needs remain important in terms of health facilities, water, sanitation, climate adaptation, the development of civil society and poverty alleviation. At least 26.4 % of the population still lives in poverty¹. An important part of the population works in the informal sector in both urban and rural areas. The relations between the private sector and the public government have been stormy, while analysis on women's resilience strategies, climate adaptation, conflict prevention, multinationals/supply chains, or on the informal sector offer vastly different angles of approach. In 2020, the COVID pandemic has come as a shock worldwide, and has raised many questions on how the different regions and countries could adapt and develop resilience strategies in an unpredictable context. This collective book is not only about Tanzania, but about what we can learn from resilience strategies in Tanzania. It provides in alternance chapters based on empirical field studies and more theoretical chapters.

This introduction chapter first approaches resilience as a multi-disciplinary concept explaining why Tanzania is of particular interest in terms of research on resilience strategies (1). Then, a general description of the country is provided addressing the transformation needs of the country

¹ According to the world development indicators database the poverty headcount ratio at 1.90 dollars a day was still 49,1 % in Tanzania in 2016

and the shock created by the COVID pandemic (2). Finally, this introduction chapter will present the objectives of this research book (3), its methodology as well as its structure and content.

1. Resilience as a Multi-disciplinary Concept

Resilience is a cross-disciplinary concept referring to the ability to cope, recover and build back from stress, shocks, and crisis. Originated from the world of physics and sciences where it merely meant “bounce back”, it has been eventually applied to psychology, and has since then been widely used in other areas such as disaster management. Its use as a concept in policy discourse has been exponential since the 2000s (Brassett et al., 2013; Brinkmann et al., 2017). The soaring use of the concept of resilience in policies can be interpreted as a progressive acceptance that “sustainability” will not be an easy path, and that societies, economies, cities, organizations still need to cope with disruptions. In that sense, resilience is associated to a decrease in the faith towards continuous progress, especially in the areas of climate related disasters, economy, stability and development.

In the field of economics, the concept of resilience presents the advantage of considering the ability to recover from severe crises linked to exogenous factors, and to minimize the risks of recession (Hallegate, 2014). Economic resilience has been iconized by the country of Singapore which has been able to resist to the 2008 economic crisis, despite its remarkably high economic and territorial interdependence. This has been called the ‘Singapore paradox’ (Briguglio et al., 2008). In a Research paper dated from 2008 (Briguglio et al., 2008), the United Nations University explicitly links the concept of Resilience to Vulnerability. The authors of the paper define economic vulnerability as ‘the exposure of an economy to exogeneous shocks, arising out economic openness, while economic resilience is defined as the policy-induced ability of an economy to withstand or recover from such shocks’ (Briguglio et al., 2008). This definition links economic resilience to four broad areas identified as main factors-namely macroeconomic stability, microeconomic market efficiency, good governance and social development. In the present book, we will not restrict the concept of resilience to its economic application. The research will embrace different aspects and areas such as socio-economic development and realities (Part I), the adaptation to climate change and other global challenges (Part II) and the role of women (Part III). We will therefore

consider the broader definition: Resilience as a cross-disciplinary concept referring to the ability to cope, recover and build back from stress, shocks, and crises.

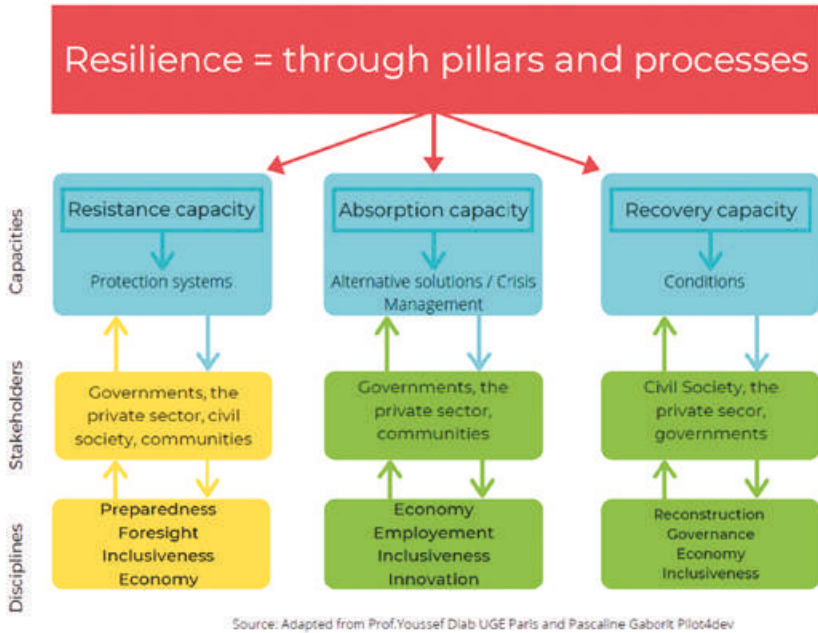


Fig. 1: Resilience through pillars and processes (Adapted from Youssef Diab EIVP team 2020, Pascaline Gaborit Pilot4Dev.)

The concept of resilience however comes along with strong limitations: its undifferentiated use may transform it into a new ‘buzz word’, emptied of its substance (Brinkmann et al., 2017). For some authors it would be inherently “messy” in its application (Harris et al., 2017). Its misuse would come with a “negative side” such as the one to underestimate the impacts of damages and disasters (Mahdiani, 2020). For instance, in a context of pandemic, post-disasters or post-terror attacks, focusing on resilience can be in contradiction with grief and support to the victims. ‘Resilience seems to carry a productive ambiguity that both resists exact definition and allows for a spectrum of interactions and engagements between policy and the everyday which are as (seemingly) effective as they are (apparently) apolitical’ (Brassett et al., 2013, p. 221).

The concept also has been criticized as addressing both a process and an outcome, or as ignoring the questions of power and justice (Harris et al., 2017, Chapter Féron).

Indeed, a focus on resilience related to the anticipation of risks in policies or in practice may bring losers and winners as resilience actions can be performed at the expense of some groups or stakeholders. Some authors such as Ziervogel et al. (2017) also highlight the fact that ‘the level of acceptable risk’ can very much vary from one group to another, as can the level of exposure to the risk. This raises governance questions – who determines the acceptable levels of risks? Under what ground? Who benefits from resilience actions or policies’ operationalisation? The Covid-19 crisis has quite synthesized such dilemmas in many countries, on whether the health, the economy’s vulnerability, or the population wellbeing and freedoms should be prioritized as the most resilient response.

Even more of a concern – practitioners in the areas of development and humanitarian aid sometimes see this concept as a real threat. The tagline ‘Only the strong survive’ could sooner or later be replaced by ‘Only the resilient survive’ in the practice of disaster management and humanitarian aid. In the sector of security, people (as opposed to groups, states or communities) could be increasingly considered as responsible for developing a response (Brassett et al., 2013). The use of the term – in an international context in particular – can induce an ideology ‘affirming the responsibility of non-Western societies for their own threats and insecurities, whether from conflict, poverty or environmental devastation’ (Chandler, 2013, p. 279). It also raises subsequent related questions – what is the contrary of resilience: is it destruction? (...) What are the indicators for a possible assessment?

The complexity of the concept and its application should however not dismiss or disqualify the use of resilience as a concept. Its appropriate use can bring strength to risk management practices in an uncertain or unpredictable context. This means that advocating resilience should be well-thought and embed complexity. For example, policy and development programs with a focus on resilience should not replace prevention and assistance to vulnerable groups. Disasters resilient infrastructure should add up to and not replace early warning systems. We should not exclude what we could call a “Titanic Syndrome” or a vicious circle by which a focus on resilience would overshadow the necessity of any

emergency response. Indeed, resilience should not mean less emphasis on the anticipation of risks.

We suggest several precautions and clarifications for the concept to be used: the fact that resilience can be applied as a system trait, as a process and as an outcome (Brassett et al., 2013), the growing emphasis on measuring resilience (Moser et al., 2019), the importance of resilience strategies in dealing with uncertainty or unpredictability, the necessity to address multiple and diverse interests and the integration of the risks' anticipation in the analysis.

The UN Sendai Disaster Framework, adopted in 2015, is equally interesting to overcome all these questions, as it proposes a multiple-steps approach: prevention, preparedness, early warning, recovery and reconstruction. Although this Framework does not apply literally to all areas – like economic shocks – it has the advantage of countering possible misinterpretations. Authors such as Harris et al. (2017), have equally suggested the concept of “negotiated resilience” to address the concept in its complexity. They define it as a process that requires engagement with diverse actors and interests, and which will inevitably lead to possible diverse options and trade-offs. This concept of “negotiated resilience” is particularly interesting in the socio-economic area, as the economy entails many choices, options and reliance on macroeconomic policies. In contrast, the concept of “social-ecological” resilience defined by Beichler (2014) also presents the advantage of addressing the environmental and social issues but may be less relevant in a context of economic crisis or disasters' management.

Throughout this book and as we move on from one chapter to the other, the concept of resilience will be taken in its broad definition. By focusing on strategies, it enables to cover the realities of different contexts and stakeholders. Our choice answers practical, but also cross-disciplinary reasons. We should admit that there are necessarily multiple interests, stakeholders and decision-making mechanisms at stake in advocating resilience strategies. Let's illustrate this with environmental examples – the stakeholders working in the energy sector and the ones working in the water sector could have different views and interests on resilience strategies (Harris et al., 2017), the urban stakeholders will traditionally propose different resilience strategies than the ones involved in rural livelihoods. Even within cities boundaries, stakeholders active in residential areas will propose different resilience strategies than the

Tab. 1: Resilience in a nutshell and application to the book's chapters

Resilience	
Possible uses	Disaster management including pandemics or floods, climate adaptation, economic shocks, external shocks including conflicts or emergency situations.
Critics	Buzzword, covering both a process, a trait or an outcome, approach putting the responsibility on the impacted groups, may lead to a confidence excess and a decrease of risk anticipation (Titanic syndrome), may serve the interest of some groups and ignore the questions of power and justice.
Induced by the use of the term	Importance of the concept to deal with uncertainty, shift from understanding resilience to active resilience building, growing emphasis on transformation/changes, and on measuring resilience.
Orientations	Negotiated resilience, economic resilience, socio-economic resilience, resilience to disasters, environmental resilience
Disciplines Covered	Social, environmental, climatic, economic architecture and infrastructure planning, engineering.

Source author

ones involved in informal settlements. This co-existence of these multiple interests and views on resilience strategies is likely to be more important as the challenges are increasing.

The question of “build back better”, which is the latest stage of the steps approach to resilience, will lead to a diversity of options, solutions, debates and choices as there will not be one single path. The book will try to address resilience by covering different notions and understandings of the concept and its application depending on the priorities, scales, contexts, sectors or interests. Finally, by focusing on strategies it will reflect on the realities of different stakeholders.

The concept of resilience has the advantage of combining academic and practitioners' expertise (Brassett et al., 2013), which is very much necessary in a research program such as the project Pilot 4 Research and Dialogue. It also connects different disciplines and presents the advantage of being cross-disciplinary (Beichler, 2014). The concept will guide us through the potentials and risks of the economy, faced with probably the largest world's crisis known since the beginning of the 2000s. This publication's objective is to base our analysis on experienced research and analysis in the country, and to identify broader

thoughts and ideas on the resilience strategies and capacity to cope and recover from crises.

2. Tanzania at a Crossroad towards a More Sustainable Development Path

The project Pilot 4 Research and Dialogue is taking place in Tanzania. Tanzania is one of the largest countries in East Africa. According to the World Bank's figures in 2016, the country's population is very young: 45 % of the population is below the age of 15. The population is expected to reach 87.2 million in 2030. Currently with 58.2 million inhabitants, Tanzania's population is widely dispersed with 70 % of the population living in rural regions and a density of 60 hab/km².

Young people represent a strength for the country's future, with 800,000 young people entering the labour force every year (World Bank Group, 2016). The country is endowed with rich natural resources and an important wildlife which are key elements for developing a sustainable and resilient model of development (Garcia et al., 2017). Tanzania has a presidential-parliamentary system. The political power has been centralized around the presidency since the independence in 1961. In March 2021, Samia Suluhu has succeeded to John Magufuli as sixth President of the United Republic of Tanzania. She is the first woman President of the country. The country is currently embarked in its second five Year Development Plan (FYDP) 2016/2017–2020/2021. The aim of the FYDP II is 'to bring about fundamental improvements in Tanzanians' lives' with a focus on 'nurturing industrialization for economic and human development'. The plan rests on three pillars 'industrialization, human development, implementation and effectiveness'. The 3rd Five Years Development Plan is being elaborated. Despite the difficulties in analysing the exact state of the art, these documents are an important framework for policies, as is the Tanzania Development Vision 2025 (TDV).

Despite the country acceding to the lower-middle-income status in 2019, which is an undeniable achievement, Tanzania remains a developing economy in terms of per capita income (Garcia et al., 2017). In 2019, the GDP per capita is indeed estimated to be around \$959 (CIA, 2020). In the last decade, the country has reached high growth rates (6.8 % in average), based on its natural resources, and was one of the fastest

growing economies globally (Garcia et al., 2017). Although around 65–70 % of the Tanzanians are occupied in the sector of agriculture, other sectors have emerged: construction, wholesale and retail trade, public administration and manufacture contributed respectively to 12 %, 10 %, 7 % and 6 % of Tanzania GDP in 2016 (CIA, 2016).

The country has experienced several success stories in wildlife conservation programs both for land and marine ecosystems (Zeppel, 2011; Sullivan et al. 2014; Turner et al., 2014). Other success stories from the country include the soaring tourism sector – the country welcomed over 1.5 million visitors in 2019 – and a successful governance model for the mining sector, including a dialogue with the stakeholders and civil society (Bishagazi, 2020).

The improvement of education in the country has been remarkable. The primary schools' enrolment rate has risen from 59 % in 2000 to 95 % in 2017 (Garcia et al., 2017). Net enrolment in secondary schools has also expanded quickly from 6 % in 2001 to over 30 % in 2011, even though the corollary is that 70 % of the children are not benefitting from a secondary education. Indeed, fees for primary schools have been abolished in 2001, as well as fees for secondary education in 2015. Although strong barriers remain in terms of modernization and equipment, poor rural households have benefitted from basic education to catch up with their urban counterparts (Garcia et al., 2017). UNICEF, however, noticed that an important percentage of children remain out of school (around 2 million), that the learning skills efficiency remains insufficient, and that young girls face an important chance of school dropout². This was equally highlighted by previous research reports (Johnson, 2011).

2.1. Tanzania's Growing Economy and Transformation Needs

According to the main international institutions in the latest years and before the world crisis, the Tanzanian economy had shown positive trends, despite a slowdown over the two last years³. 'Improvement would be subject to favorable international trends, prudent fiscal management,

² [Education | UNICEF United Republic of Tanzania](#)

³ World development indicators, world bank 2020 <https://data.worldbank.org/country/Tanzania>

mitigation of financial sector vulnerabilities⁴, fair and consistent poverty alleviation, and implementation of reforms to improve the business environment⁵.

Tanzania has been considered a model for development, peace and stability despite the arrival of refugees from neighbouring countries and the potential tensions created by climate change. The EU Index Inform disaster risks categorizes Tanzania as a country with a high vulnerability to natural hazards but low risks in terms of human conflicts⁶. From a Human Development point of view, the needs remain important in terms of health facilities, water, sanitation, education, the development of civil society and poverty alleviation. At least 26.4 % of the population lives in poverty, and according to the world development indicators database, the poverty headcount ratio at 1.90 dollars a day was still 49.1 % in 2016. An important part of the population is currently working in the informal sector in both urban and rural areas (Chapter Pallangyo).

In terms of exposure to hazards and vulnerabilities, the question of public health remains at stake with a strong prevalence of Malaria, among others. In its terminology, the UNDRR (United Nations Office for Disaster Risk Reduction) defines vulnerability as a set of conditions leading to exposure to hazards: ‘Conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to hazards’. Vulnerability encompasses concepts such as sensitivity or susceptibility to harm, and lack of capacity to cope and adapt (Butterfield, 2020). According to the World Health Organization in 2019 and the Severe Malaria Observatory⁷, Tanzania is among the ten countries with the highest malaria cases and deaths (3 % of the global cases, 13.4 % of cases in East and Southern Africa and 5 % of global deaths). Waterborne diseases, such as Typhoid and Cholera, are also a concern for the population. So far, Zanzibar has experienced 17 major cholera outbreaks since 1978, especially in areas with a chronic shortage of water and poor access to adequate sanitation (UNICEF). The Government’s efforts to improve access to safe drinking water and sanitation are challenged by climate

⁴ Tanzania Economic Outlook, African development Bank, 2020 <https://www.afdb.org/en/countries-east-africa-tanzania/tanzania-economic-outlook>

⁵ Project Pilot 4 Research and Dialogue.

⁶ [INFORM Risk – Dashboard \(europa.eu\)](https://inform-risk.europa.eu/)

⁷ [Tanzania | Severe Malaria Observatory](https://www.severemalariaobservatory.org/)

change factors, and the sea-level rise leading to the pollution of freshwater resources.

This book argues, throughout the pages, that the country has enough assets and resources to become a leader of sustainability and stability in the region. Tanzania's potential in terms of human resources and skills are tremendous, just as much as the challenges ahead.

Agriculture still employs 65–70 % of the population (World Bank Group, 2016). The sector mainly relies on a rainfed pattern. Therefore, it is very vulnerable to climate change, creating problems in terms of food security. The transformation from rainfed agriculture to irrigation agriculture remains an important challenge for the next few years (Teske et al., 2017). Access to electricity is equally a challenge – in 2014 only 11 % of the households were connected to the grid, and only 1 % was able to use the electricity for cooking (Duarte, 2015). Although the figures have increased, 35 million people still did not access electricity in 2019 (CIA, 2020). The reliance of the country to large hydropower energy supply makes it very vulnerable to climate change. In 2012 already, a drought period had caused severe disruption to the system (Teske et al., 2017; Garcia et al., 2017). The development of renewable energies represents an important opportunity to clamp down on deforestation (Teske et al., 2017; Garcia et al., 2017 chapters Gaborit, Bushesha et al.).

The country is indeed experiencing transformation needs in terms of forest conservation (Chapter Bushesha et al.) and challenges in climate adaptation (Chapter Gaborit). Indeed, most of the consumed energy comes from biomass and charcoal for household energy and cooking needs, leading to 100,000 to 125 000 ha of deforestation every year. The energy consumption is largely dominated by the consumption of biomass: 88 % of the total energy consumption is caused by the burn of biomass under the form of firewood and charcoal production for cooking in the rural areas (Duarte, 2015; Shaafsma et al., 2013; Rosa et al., 2018).

Just like other neighbouring countries, Tanzania is equally facing challenges related to governance, implementation of the tax system, fairness in tax harmonization, poverty alleviation, infrastructure, agricultural modernization, access to facilities in remote areas and job opportunities for the youth. Entrepreneurship and development are not only dependent on the skills development (Olomi, 2018), but also on the banking system to be more widely developed. Indeed, in a survey made by the World Bank Group, to the question “Do you have access to a bank account?”, only 23.4 % of the respondents have answered by the positive

in urban areas, and this figure was only 5.1 % in rural areas (World Bank Group 2020, p. 49). In general, to the other question “Do you have access to a credit card or debit card?”, only 6.7 % of the respondents have answered by the positive. This makes it exceedingly difficult for entrepreneurs, micro-businesses, and young entrepreneurs to thrive.

Stability, security, and inclusiveness are part of the country’s long-term positioning. Development depends on infrastructure, trade, investment, and improvement of agriculture, food security, access to healthcare, education and poverty alleviation. Heavy infrastructure investments in rails, ports, and roads as part of the government’s investment plan were expected to be one of the main drivers of the GDP. However, the issue of resilience in terms of infrastructures to counter economic shocks and climate change remains important (Rudari et al. 2018; Winthrop et al., 2018). Some experts also pointed out the question of the difficulties in finalizing the current important public works⁸.

According to the World Bank Group (2015), “*Tanzania will look dramatically different by mi-century*”. The country’s growing population will need to adapt to the already existing climate shifts, including rising temperatures, less predictable rainfalls and extreme weather events such as droughts, with spiralling effects on the agriculture sector.

Tanzania’s population is estimated to grow, as well as urbanization. The population is expected to triple from 45 million in 2010 to 87.2 million in 2030 and 130 million in 2050⁹. By 2020, it already exceeded 59 million. Young people are a massive potential for development and represent an asset for macroeconomic reforms. A growing population will trigger increased demand for infrastructure, amenities, but also food and consumption. Finally, with the new current global challenges ahead, the question of development, fairness, and resilience will be at the heart of many national economies, including in Tanzania.

2.2. From Transformation Needs to COVID Shocks

The Covid-19 pandemic has affected the whole world’s economy while the prospects for Sub-Saharan African economies remain unknown (Teachout and Zipfel, 2020; Ataguba, 2020; Alon et al., 2020; Danqah,

⁸ Project Pilot 4 Research and Dialogue 2020 www.pilot4dialogue.com

⁹ World Bank Group *Financing Climate-Resilient Growth in Tanzania*, September 2015.

2020). Although European governments managed to limit the economic damages by launching recovery programs, sub-Saharan countries were shaken by massive public debt, and shortfalls in state revenue (Tharoor, 2020). The most vulnerable groups, and poor people living in the informal economies are facing deprivation. The UN's World Food Programme (WFP) alerts against an increase in hunger and famine globally. At the same time, fatal health problems unrelated to Covid-19 also tend to increase (Tharoor, 2020; Teachout and Zipfel, 2020). Yet, the media focuses on Covid-19 while the researchers and journalists are hampered by the travel restrictions, making it difficult to find accurate data. As a result, evidence of the impacts of the pandemic on extreme poverty hunger and health (SDG 1,2,3) may be found only afterwards. According to the UN World's Food program, around 135 million people worldwide faced acute food insecurity before the pandemic, and that number is expected to double in the next few years. According to the International Growth Center research, the containment measures in Sub-Saharan Africa in May 2020 have already pushed an additional 9.1 % of the population into extreme poverty (Teachout Zipfel).

The other development programs related to the implementation of the SDGs may slow down or be cut, along with the implementation of new priorities. This trend may affect water and sanitation programs (SDG6) and the fight against climate change (SDG13). NGOs and international organizations warn us against a reversal in the implementation of the SDGs (Tharoor, 2020), while development aid and international solidarity could stagger in the next few years.

Despite the country not experiencing a strict lockdown and while agriculture has been maintained, specific sectors such as tourism, inter-regional trade and private investments were affected. Some authors demonstrate how negative news can harm economic development, especially in the tourism sector (Besley, Fetzer, and Mueller 2020). Indeed, recent research papers show that in Tanzania, the COVID-19 pandemic has negatively affected the lives of millions of people, especially in the areas of the agricultural sector, health, hospitality and tourism among other sectors.

According to the World Bank Group, general growth has remained perceptible: 6.1 % in 2019 due mainly to the rise in gold export' prices (World Bank Group, 2020). A quick estimate by some research authors report that 60 % of Tanzanians would be at risk of losing their jobs due to the pandemic's indirect consequences (Saleh, 2020). The negative impacts

of the COVID-19 pandemic caused severe food insecurity, the decline in tourism, banking sector, education, health, among others driven in large part across the globe and Tanzania is no exception (Saleh, 2020; Adam et al., 2020). ‘The COVID-19 pandemic and policy responses to it, both nationally and globally confronts the low-income and lower-middle-income countries of Africa with an economic crisis, which is potentially bigger than anything most have ever had to deal with outside of war and civil conflicts’ (Adam et al., 2020, p. 19). The government’s policy choices will depend on the evolution of the global situation in restoring global markets even though the protection of the most vulnerable populations may still be at stake during the recovery phase.

The restrictions have hardly hit the tourism sector which represented 26 % of the foreign income (World Bank Group, 2020) and it is expected that the hotel occupancy rate will decline from the 50.3 % average reported in 2019 (Saleh, 2020). Some prices of export goods have also been falling. For instance, from the beginning of 2020, prices for cotton and coffee have decreased by more than 10 % and 24 % respectively (Saleh, 2020). It is estimated that the major export destinations have slowed down for the key agricultural products, including fish, tobacco and coffee (Saleh, 2020). The local investors are expected to have less confidence and delay their investments (for instance, in the infrastructure or energy sectors). In general, agricultural exports have declined. The mining sector, which was a key success in the policy of national reappropriation of growth (while discouraging Foreign Direct Investment) in the years before COVID, is reported to face serious challenges such as the disruption of global supply chains, decrease of exportations and slowdown of operations by mining companies. Although it is too soon to have an exact estimate of the consequences on the economy, the elements above show that there is a risk of negative down spiralling for the whole economy.

In addition, the period of uncertainties has inevitably led to hesitations from the private sector while disruptions have hit the informal sector in food and goods’ supply. However, as still 65–70 % of Tanzanians are occupied in the agricultural sector, the damages may be more counted in terms of revenue loss, and in the risk that many Tanzanians would be thrust below the poverty line.

According to simulations from the 2018 World Bank Group Households’ survey ‘an additional 500 000 Tanzanians could fall below the poverty line, particularly those in urban settings relying on

self-employment and informal micro-enterprises' (World Bank Group, 2020). The question of food security is also critical. According to figures from the UNICEF in 2015, more than 2.7 million Tanzanian children under 5 years of age were estimated to be stunted, and more than 600,000 were suffering from acute malnutrition, of which 100,000 were severe cases. This trend is severely linked with the impacts of climate change but could also be worsened in the current economic context impacted by the COVID 19 pandemic. Although it was not possible to find current studies for Tanzania, other studies focused on Kenya and Uganda show a net increase of food insecurity among the local populations (Kansiime et al., 2020). Other research reports noted an increase in Kenya's food prices, especially for maize, eggs, vegetables and milk (Ogenga and Baraza, 2020).

However, like other major past crises, Covid-19 will likely bring in economic, social and technological transformations, some of which may be important drivers for future resilience and sustainable development. These drivers are developed further and more in-depth throughout the book. They can include a modernization of the agriculture sector with smart irrigation systems, the increase of dialogue with the private sector to create a trusted environment for future investments (Chapter Olomi), the mobilization of youth as a strength, the improvement of resilient infrastructure (Chapter Gaborit), the protection of ecosystems (Chapter Bushesha), investments in renewable energies (Garcia et al., 2017; Teske, 2017), and engagement of a strong dialogue with the communities, and with civil society organizations. The World Bank Group also highlights in its report 'Tanzania Economic Update', that the digital economy could strengthen the effectiveness of the response to shocks and become a key driver of Tanzania's economy. The creation of mobile banking opportunities would facilitate investment and entrepreneurship and propose more inclusive models. At the same time, more generalized access to a reliable digital connection would support the recovery.

The country has been affected by the economic context of the pandemic, as well as by the sudden death of the former president. But it is also in an interesting transition with the new Presidency of Samia Suluhu since March 2021, the first woman President of Tanzania, representing and promoting the country's development as well as unity. Some observers see this as a hope for the country's future, as well as for Tanzanian women and minorities. The country is at a crossroad. Like in many other countries, we are at the crossroads of major changes, where the

transformations may enable some regions to leapfrog development and develop “no regrets solutions” in which the investments will be beneficial, whatever the uncertain future scenarios may bring. Specifically, this could cover technology updates, climate adaptive capacity, more inclusive approaches and support to the youth. The current crisis could reveal opportunities for many national and regional economies to “build back better”.

3. The Objectives of the Book and the Research Project

The book’s objective is to create a joint publication between European and Tanzanian researchers on resilience and vulnerabilities with a highlight on Tanzania in 2021. It brings together a cross-disciplinary analysis and complementary chapters. The authors illustrate the resilience and coping strategies which have emerged in different economic sectors, while they have been hit by endogenous and exogenous shocks (the pandemic, climate disaster’s impacts and the global recession). This publication is part of a larger cooperation project. The project Pilot 4 Research and Dialogue (P4RD)¹⁰ is co-funded by the European Union and has created a framework to develop research on the Development and economy in Tanzania. This research addresses the economy in its different angles and related development themes, including the remaining poverty gap, the inequalities and the implementation of the Sustainable Development Goals (S.D.Gs). This publication will capitalize on the project’s results while gathering additional expertise from researchers.

The project is also about Dialogue as a process to strengthen resilience and to reduce vulnerabilities. Research shows that despite the obstacles for carrying out a successful outreach process towards different stakeholders, the absence of a robust engagement process has costs and ramifications. For instance, it can result in the development of inappropriate solutions, increased conflicts and social tensions, absence of a shared vision for the future, “rebound effect” (whereby appropriate solutions are not appropriately used due to lack of community awareness), and ultimately a lack of preparedness and resilience.

Although the process can often be disorganized and contentious, as each group is pursuing different goals and interests, a solid public

¹⁰ www.pilot4dialogue.com

engagement process with true stakeholder participation and partnerships could better ensure the sustained, inclusive and meaningful transformation of regulations, built environment or practices (Klopprogge and Van Der Sluijs, 2006). But engagement and awareness raising also need clarity, simple, clear and comprehensive resources that would be made available to the public. This is not always possible to reach that clarity in an area such as climate change or the environment, where there are certainties, but also unpredictability (e.g. on the occurrence of climate-related events). ‘Even if decision-makers are actively seeking to develop genuine engagement and partnerships with stakeholders, an abundance of confusing and contradictory resources can serve as a barrier to solid engagement’ (Raven et al. 2018, p. 165). The private sector and citizens must be provided clear and easy steps on how best to contribute to developing solutions for climate and for the environment. Still, they often feel unarmed faced with questions like climate or the energy transitions (Friends of Europe debate series, October 2020). It is also a matter of social justice that the vulnerable groups, including people living below the poverty line, are engaged in the decision-making process. It is equally important to make sure that not only “big polluter” companies are included in the dialogue process, but that SMEs and micro-enterprises involved in climate mitigation, adaptation, Green Deal or SDGs related implementation plans, can also raise their voices to elaborate solutions. Therefore, strong mechanisms need to be put in place. Genuine and sustained stakeholders’ participation can rule out disagreements earlier, provide the opportunity to work through different scenarios and move plans towards more shared visions.

The right solutions, however, need to break down institutional and disciplinary silos. This was also the aim of our project Pilot 4 Research and Dialogue which brought up comprehensive research and engagement. The involvement of stakeholders therefore required a general level of trust and cooperation (Tilly, 2005). A complication also lies in the fact that decision makers often need to act as referees to solve potential conflicts (e.g. as regulator for the environment) and facilitate negotiations (which may reduce the level of trust for instance from the private sector). Therefore, to create consensus, to promote cooperation, and to move toward an equitable environmental management process, an intimate understanding of the motivations and drivers of different stakeholder groups is needed (Schaltegger, 2003). Lack of transparency between the public and the private sectors can be a key obstacle to reaching consensus

among the different stakeholders. Stakeholders also need to know who is accountable for the decisions on sustainability and climate solutions and how precisely they can contribute to the decision-making process.

The aim of the book is also to bridge a knowledge gap. The current economic literature on Tanzania (Adam et al., 2017) is addressing the economy and development as a “path” or a linear description towards a transformation (mainly from a rural economy to an industrialized or service economy). From a different angle, development studies addressed questions such as gender or the informal economies with investigative fieldwork and an extremely focused scope (Doyle, 2017; Eijdenber, 2019; Brockington, 2019; Steiler, 2020). Among this, there is no applied academic literature addressing the resilience to shocks and sectorial transformations in a context of uncertainties and change (e.g. induced by climate change, economic shocks, or the current pandemic). This lack of current literature can be easily explained by the difficulty to access data, and by the unconfirmed assumption that the Development of Sub-Saharan economies would be progressive. Therefore, the idea of the book is to develop a cross-analysis of both theoretical and field articles mainly based on Tanzanian research. It encompasses interdisciplinary research with the involvement of economists, social scientists, and experts on gender, experts on policies, and researchers on Development.

The book will be distinctive in its scope, approach and rationale. By focusing on the resilience and vulnerabilities of the economy in Tanzania, the book will provide a genuine framework to study further the Sub-Saharan economies confronted by shocks (in reference to the current COVID-19 pandemic, but also to the impacts of climate change and the economic recession). It will move beyond the state of the art by providing interdisciplinary contributions and chapters drafted by both European and Tanzanian academic researchers, experienced in their study field and familiar with international organizations. We will provide a well-thought and informed publication, based on research, analysis, cross-analysis and comparative analysis. Its approach will potentially lead to further use within forthcoming research and publications. The book fills a gap in the existing literature by focusing on a topic that has not attracted yet much attention, and on a country for which high level academic contributions are scarce. It can also raise interest in both researchers and students working on topics such as Sub-Saharan Africa, the political economy, development studies, the crisis, vulnerability, resilience and gender studies.

4. Structure and Content

The book has been thought and written at a difficult moment, including for research and data access. First, the pandemic complicated international travels and the project's panels of experts were organized mainly online. This means that the fieldwork has been done entirely by Tanzanian researchers. Secondly, this publication also came after the national elections which occurred in October 2020, followed by the death of President John Magufuli and the presidential transition in March 2021. This situation has created delays in getting the necessary authorizations for the access to data for some of the research. The book is a mix: it mingles the work of researchers with different backgrounds (economy, sociology, political science, experts in dialogue), and different methodologies alternating desk and literature review, analysis, as well as fieldwork. One of the main obstacles faced during the writing of this book was the question of the access to data. This has been solved by relying on existing preliminary past research, a qualitative analysis and a peer review system.

As there are very few specialized research books on Tanzania, we mainly relied on the national statistics and on the work of international organizations to collect and compare sufficient data. Most of the authors also included in-depth interviews with key informants as part of their research. Resilience came as the common thread guiding us along the different chapters.

The book will be split into three distinctive sections: Part I addresses the socio-economic impacts and realities, Part II is about the resilience to global challenges and climate change, and Part III finally elaborates on the role of women between vulnerability and resilience.

The first part of the book is indeed focused on *the socio-economic realities and impacts* in the year 2020.

This first part starts with an in-depth introduction of Tanzania's history – especially the stormy relations between the government and the private sector by Dr. Donath Olomi. These approaches are put in perspective from an angle of resilience-building. This chapter is very central to this book. It highlights the current situation and explains the need for further dialogue as the private sector could develop more employment opportunities for the youth.

It is followed by two chapters on the informal sector. The question of the resilience and coping strategies of the informal economy, are relevant

for several reasons. According to the IMF, the informal sector represents 34 % of the economy in Sub-Saharan Africa. Still, as some of the book chapters demonstrate, it can be up to 80 % for women in remote regions (Bishagazi). Therefore, the two first authors of the book (Pallangyo, and Bishagazi) explore in detail the repercussions of the socio-economic conditions of Tanzanian informal workers, and how the public policies responses should be shaped to weather the impact of the crisis on Tanzania's society.

In her article, Dr. Kaihula Bishagazi discusses the welfare effects of the COVID-19 pandemic on the vulnerable segments of Tanzanian society, including women and youth in the Tabora Region. This chapter also examines the relevance of the main macroeconomic policy measures that have been announced so far to counteract the effects of the crisis. To do so, the author has based her analysis on historical data and on the most recent information accessible at the time of the publication in combination with a Rapid Assessment Study conducted in July 2020. This assessment showed that the period has heavily impacted women and girls in the Tabora region, with a decrease in earnings, and has in parallel exposed them further to gender-based violence.

Through their respective studies, the two first authors provide a basis for more inclusive policies and advocacy supporting the informal sector and finding potential mitigation strategies for key actors of the informal sector – particularly for marginalized groups.

In the final article of the first part, Wambura Messo and Felix Nandonde consider the potentials of the livestock sector. The authors analyse the recent developments in the livestock sector and assess how the pandemic has impacted this multi-faceted business area. The author provides findings on the impacts of the crisis on the food supply and addresses the recovery factors.

The second part addresses the question of *resilience to global challenges and climate change*. The project Pilot 4 Research and Dialogue attempted to identify resilience strategies and good practices which could facilitate the country's prosperity in the future. Economies in Sub-Saharan countries are more exposed to global trends (such as the crops market prices). They are also affected by global hazards (e.g. incurred by climate change). Floods and droughts are disruptive for the agricultural markets and for the food supply. As these economies are mainly based on agriculture, such events have strong impacts and repercussions on poverty and inequalities.

Dr. Felix Nandonde et al. (Nandonde, Gaborit) address Multinational Enterprises (MNEs) and local supply chains in the view of a long term sustainable economy. This chapter details how the supply chains and the local economy could be better centred on the needs, whereas the second part addresses more general prospects for sustainability strategies.

The following chapter (Gaborit) addresses the resilience and vulnerabilities in terms of climate change. It argues that the impacts of climate change are increasing, and that additional environmental degradation will multiply the severity of the impacts. This general chapter is followed by a joint research (chapter) with Prof. Magreth Bishesha on the extent to which forest protection is a critical factor for future resilience and sustainability strategies.

Ali Mjella and Hans Determeyer analyse the private sector's resilience strategies (with an analysis of the Best Dialogue project). This chapter equally echoes the book's background chapter by Dr. Olomi.

In the next chapter by Dr. Saida Fundi the author assesses community participation's practice and adequacy in water resources governance through Water Users Groups and Water Users Associations. The chapter explores how these users' groups have been shaped, and whether it has been sufficient to promote civic participation and long-lasting changes in civil society's behaviours, in the view of rational use of resources (and resilience). The chapter highlights important needs in terms of access to water, drinkable water, irrigation for the agricultural sector and the needs in terms of water and sanitation. The author analyses the necessary balance between the need for policies and public investment in infrastructure, and the civic participation of water users. As such, the author also addresses the question of governance-structured resilience in a context of disruptions.

Finally, in the last chapter of the second part, Prof. Elise Féron together with Cecilae Jensen, address why the links between conflict prevention and resilience are particularly relevant for future research studies.

Finally, the book's third part addresses the question of *the role of women between vulnerability and resilience*. Both international organizations and research have highlighted the difficulties for women in Tanzania in terms of access to secondary education (Johnson, 2011) or to access land (Moyo, 2017). In Tanzania, women have an average of five children and are more exposed to school dropout and poverty in the rural areas of the country. The project Pilot 4 Research and Dialogue has integrated

a gender analysis into all of its research activities. The proposed chapters also show the necessity to move away from easy and simplistic assumptions when it comes to women.

Prof. Elise Féron's chapter addresses the questions of vulnerability and resilience by analysing them through the lens of gender, age, ethnicity and other social markers. This enables the author to provide an intersectional approach to vulnerability and resilience. This is done by identifying obstacles, challenges and avenues where improvements can be made so that civil society can adapt more efficiently and swiftly to change.

The article led by Constantine Georges discusses the place of women's participation in the Tanzanian economy. The author observes the current labour force statistics and conducts a comparative analysis of gender distribution across several work sectors. The overarching issue which this paper examines is the exclusion of women in various economic sectors in Tanzania. This paper, in the process, highlights inequalities of access between genders across economic fields.

Finally, in the last chapter of the third part, Theophil Michael Sule discusses women's engagement in the Tanzanian informal sector by identifying the drivers of this engagement and its restrictions. It also explores how those results can be used meaningfully to promote development-oriented policies.

This book relies on a multi-disciplinary approach, with a general analysis of the links between the public and the private sectors. It addresses the resilience strategies in several areas such as the local economy (MNEs and local supply chains), conflicts' prevention, climate adaptation or the forests' protection. The informal sector is being analysed in at least two chapters. The book also develops an analysis of climate adaptation as a factor for long term resilience, two chapters on the role of women in the economy, and a more generic one on the concept of gender as intersection. Finally, the question of governance in the water sector comes as an illustration underpinning possible resilience strategies.

Tanzania is at a crossroad with many hopes linked to the current transitions. This book is about what we can learn from the resilience strategies in the country, in the view of global important challenges linked to resilience and sustainability.

For the theory, there is certainly no simplistic overview on, how resilience strategies can be successful in certain sectors and whether there are “push factors” that could be activated. There are also no easy solutions to answer vulnerabilities and the exposure to hazards and shocks. The questions of “access”- access to education, access to healthcare, access to employment opportunities and access to technologies to modernize the agricultural sector – and “inequalities” among others, are not always consensual despite their direct impact on the reality of the resilience strategies.

The related questions such as fairness or exposure to shocks sometimes induce many complex realities and overshadow the diversity of the individuals working in key sectors -such as agriculture- or in the informal economy who appear to be vulnerable or exposed economic sections. Throughout the chapters, we indeed highlight the different parameters and challenges of multiple and diverse resilience strategies involved towards more sustainability. This book is an outlook of international development challenges.

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Background Chapter: The Vulnerability and Resilience of the Economy in Tanzania: A Historical Context

DONATH OLOMI PHD

1. Introduction

The United Republic of Tanzania is the second-largest economy in East Africa, with a population of almost 60 million (World Bank, 2020). It comprises the mainland, which was formerly known as Tanganyika and the islands of Unguja and Pemba (Zanzibar) in the Indian Ocean. Tanzania is bordered by eight landlocked countries – Burundi, the Democratic Republic of Congo, Kenya, Malawi, Mozambique, Rwanda, Uganda and Zambia as well as the Republic of Seychelles in the Indian Ocean.

The mainland became a German colony in 1885 – following the partitioning of the Sub-Saharan African (SSA) area among major European powers at the 1884 Berlin Conference. After the Germans' defeat during the First World War in 1918, the colony became a British Protectorate under a United Nations Mandate until 1961, when Tanganyika became independent. In 1964, Tanganyika united with Zanzibar, a newly independent island state, to form the United Republic of Tanzania (URT).

According to the World Bank, the country acquired the status of lower medium income in 2020, with a per capita income of USD 1080 (World Bank, 2020). The distribution of wealth is heterogenic – the *National Economic Survey* (URT, 2019) reported that more than 70 % of Tanzanians live in rural areas where the level of poverty is high compared to urban centres. Indeed, agriculture is employing about 66.3 % of the rural population. It is also worth adding that a 2010 baseline survey of micro, small and medium enterprises (URT, 2012) recorded 3.2 million businesses, 89 % of which were informal (no business license). The informal sector accounts for 80 % of employment and contributes 39 % to GDP.

The country's economic history can be divided into four distinct epochs, representing different economic policy stances. These are (i) the pre-colonial era, (ii) the socialist era, (iii) the economic liberalization era and (iv) the post 2015 era, characterized by the re-emergence of economic nationalism, concerted anti-graft actions and the Covid-19 pandemic. In every era, businesses – including informal – small and large ones have had to navigate in precarious environments resulting from specific international economic crises, national policy stances as well as natural calamities, including the current pandemic and their aftermaths.

This chapter provides a historical overview of the evolutions of the private sector in Tanzania, highlighting the major developments and vulnerabilities experienced by the sector, as well as its resilience. The aim is to provide the reader with the context in which the private sector has been operating in Tanzania. The chapter relies on a literature review, a thematic analysis and a presentation of the findings.

Therefore, the first part of the chapter focuses on a historical account of the country's development, the challenges faced by the private sector and how it has, in some cases, managed to survive. This includes the pre-independence period, the socialist period, the economic liberalization period, crackdowns on corruption and the Covid-19 pandemic. Then a second part of the chapter synthesizes the various drivers of vulnerability, before the presentation of the conclusions.

2. The Private Sector through Major Development Epochs

Over the years, the private sector has been highly vulnerable to a changing context in terms of economic policies and developments in the international environment.

2.1. The Pre-Colonial and Colonial Period – Before 1961

During the pre-colonial days, local and international trade existed as well as cottage industries like weaving, food and beverage production, black smithery and woodworking in Tanzania. Colonial governments have imposed a regulatory framework designed for formal businesses, leaving the informal economy under the supervision of traditional chiefs. Colonial regulations and competition from imports largely suffocated

the established indigenous enterprises (Rweyemamu, 1973) which were exclusively informal.

This formal-informal dichotomy survived until now. The formal sector, is mainly represented by small, medium and large scaled enterprises, has had close linkage and high dependence on developed countries for technology, inputs and markets. While the informal sector, made of micro enterprises and supporting at least 70 % of the population (ILO, 1993) has relied on simple, mainly indigenous technology, localised markets and untrained workforces (ILO, 1972).

After the defeat of the Germans during the First World War, the economies of present-day Tanzania, Kenya and Uganda were all under British rule and integrated under the East African Common Services Commission which later became the East African Community after independence. The economic block shared several common services including air, rail, and roads as well as posts and telecommunication, all of which were publicly owned. Until 1966, the region also shared a common currency, which was managed by the East African Currency Board.

There were subsidiaries of multinational corporations operating alongside few small and medium local enterprises, mostly owned by Asians.

2.2. The Suppression of Capitalism – 1961–1980s

The first Five-Year Development Plan (1961–1966) envisaged development of the economy by attracting Foreign Direct Investment (Hartmann, 1983). Parallel to these efforts, the new independent government started to establish state enterprises. In 1962, the government established the Tanganyika Development Corporation (TDC) to promote, finance, develop and manage state business undertakings. Over 10 state corporations had been set up, acquired or restructured before 1967 when the country adopted the Arusha Declaration – the socialist blueprint (Wangwe, 2018).

Following the Arusha Declaration, banking, import-export, insurance, large scale manufacturing and transport, commercial buildings and large farms were nationalised. The government invested massively in state enterprises henceforth. A confinement policy restricted wholesale trade for selected commodities to parastatals. By 1985, there were 400 parastatals accounting for 20 % of GDP and about two-thirds of employment in the formal sector.

Private sector entrepreneurs were looked upon as exploiters and “enemies of the state” (Ngowi, 2009).

Regulations were introduced to bar party officials and civil servants from engaging in business activities. Since almost all educated Africans were civil servants or party officials, this meant that business activity was left to Asians and the indigenous people who lacked enough education to work in the public sector (Mramba, 1984; Bagachwa, 1992; Wangwe, 2018). This policy further delayed the emergence of indigenous entrepreneurs. However, rather paradoxically, the government established the Small Industries Development Organization (SIDO) to support development of small-scale industries throughout the country (Mramba, 1984). Some of the industries created would come to prove helpful when industrial parastatals could not supply the products they were designed to produce.

The international oil crisis of the early 1970s was followed closely by the break-up of the East African Community in 1977 and a costly war between Tanzania and Uganda in 1978–1979, inducing a long economic crisis in Tanzania. The crisis resulted in serious shortages of foreign exchange, inputs and consumer products; increased inflation; lower crop prices and reduced purchasing power. The shortage of imported inputs and spare parts, coupled with poor management and graft, resulted in the reduction of industrial capacity utilization by 20–50 % with state enterprises becoming increasingly reliant on subsidies (Nord et al., 2009). As a result, real GDP was contracted each year from 1981 to 1983. Also, industrial output and capacity utilization fell by between 15% and 25 % annually, while the transport system and other public services deteriorated dramatically due to a lack of maintenance (Mans, 1994).

The drastic erosion of purchasing power among employees and peasant farmers forced an increasing number of people to take up petty business activities as a survival strategy. The increasing reliance on petty businesses for subsistence fuelled rural-urban migration and informal activities.

Despite having been weakened over the years, the private sector started filling the void created by parastatals by establishing backyard factories for some products such as soap, clothing, cosmetics, shoe polish and vegetable oils and smuggling in products through porous borders. The shortages stimulated a parallel market for both locally and imported products, with most traders colluding with state distribution company officials to buy and hoard products for sale on the black market.

Still, the state could not fully embrace the private sector – there were conflicting views within the ruling party and the government regarding what should happen to the private sector. For several years, the government policy was ambiguous. Hartmann (1983, p. 342) reports that, in response to calls from some government and party leaders to provide more space for the private sector, a research paper prepared by the party argued that: “ (...) *to allow the existence of private capital is a temporary measure. This step should not be seen as an attempt to destroy the policy of Ujamaa. As far as the agricultural sector is concerned, the private sector should not be allowed to function there at all. Likewise, trade/commerce should be in the hands of the state. The time has come to fight capitalism and exploitation and their temptations, otherwise, the roots of capitalism will continue to expand and to spread.*”

In 1983, the government launched a ruthless crackdown on “economic saboteurs” – which embedded mostly traders. Thousands of entrepreneurs were arrested, charged and jailed under the Economic Saboteurs and Organized Crimes Act (Mans, 1994). This crashed the nascent indigenous private sector just when it was finding its way to fill the gap left by the crumbling parastatals.

2.3. The Economic Reforms and the Survival of the Fittest – 1980s–2015

When the 2nd phase government of President Ali Hassan Mwinyi took over in 1985, the situation was so bad that it felt compelled to accept the conditions of both the World Bank and the International Monetary Fund (IFM) to liberalize trade and to start implementing a radical transformation which entailed a reversal of the socialist policy. The reforms involved the liberalization of virtually all sectors of the economy, privatisation, and retrenchment of workers from the civil service and other public institutions. Under the reforms, the government gradually changed its economic policy from reliance on state enterprises to the promotion of foreign investments and local entrepreneurship. The government’s role was redefined to focus on facilitation rather than direct ownership over and operational management of the enterprises. About 150 out of 385 parastatals were privatized between 1994 and 1998 and the privatization was almost completed by 2003 (Wangwe, 2018).

The reforms were accompanied by retrenchments and by the freezing of employment, leading to a further increase in the number of people whose only means of survival was self-employment.

While the reforms provided relief in terms of availability of imported products, the governance of the economy was not conducive to growth and jobs' creation. It was clear that the government needed to go beyond liberalization and privatization to achieve a meaningful level of investment and growth. Starting from 1995, the 3rd phase government of President Benjamin Mkapa engaged in an aggressive reform program, which included the development of policies, strategies and institutions that would support a private sector led economy. Measures taken as part of the implementation of the 1996 Sustainable Industrial Development Policy (SIDP) included the establishment of the Tanzania Investment Centre, investment incentives for both local and foreign investors, infrastructure development as well as the development of small business, trade and sector specific policies and strategies (Wangwe, 2018).

Unfortunately, following trade liberalization and the 2nd coming of foreign investors, the indigenous producers were largely crushed by cheap imports, more efficient technologies and better-quality products made by foreign investors (Wangwe, 2018).

The 4th phase government of President Jakaya Kikwete found an existing strong foundation for economic transformation. The private sector had already started taking root. The government largely maintained the policy stance of the 3rd phase, and the country witnessed a consistent GDP growth of over 6 % between 2005 and 2018. In addition, the space for political, media and civil society increased significantly.

A key agenda of the 4th phase government was to bring structural transformation from an agrarian, low-income state to a semi-industrialized middle-income economy, in line with the Tanzania Development Vision 2025. The Long-Term Development Perspectives Plan (2011/12–2025/26) and more operational Five-Year Development Plans were introduced as frameworks for the realization of Vision 2025 (URT, 2011).

It was recognized that the private sector was struggling to emerge from the many years of central planning due to several factors, including poor availability and high cost of power, transport infrastructure, skills and finance, a complex and costly business regulatory and tax administration framework, slow changing command economy attitudes and a very high incidence of informality. Among others, the development plans, along

with sector policies and strategies prioritized these binding constraints over the private sector's development (URT, 2011).

Grand corruption, embezzlement of funds, poor management of public funds and natural resources, red-tape, laxity and bureaucracy in the public sector have all acted as barriers to poverty reduction in the country from independence¹. However, the scale of corruption appeared to increase with each successive administration. Alarming high levels of corruption were indeed reported during the 4th phase. The problem of graft was picked as the rallying point for the burgeoning political opposition. During the 2015 general elections, the candidate of the ruling party campaigned on the necessity to fight endemic corruption (Wangwe, 2018).

2.4. The Crackdown on Corruption – 2015 Onwards

The government led by President John Magufuli, which came to power after the 2015 elections expressed his wish to see a thriving private sector. Consistent with this wish, he committed to addressing the main challenges faced by the private sector, which he identified as corruption, bureaucracy, over-regulation and multiplicity of taxes and levies. The government developed a blueprint for regulatory reforms, restructured some regulators and abolished over 100 levies and fees between 2016 and 2020.

At the same time, the president expressed vows to deal squarely with elements in the private sector which use corruption and other illegal means to acquire wealth. The government also sought to adopt a heavy-handed approach in fighting corruption. Indeed, corruption has been among the complains of the private sector due to its negative impact on the cost of doing business and an unfair playing field. For this reason, resolute action is needed to address it.

Nevertheless, some of the approaches used to tackle corruption had considerable adverse effects on the private sector. For example, the high-handed approaches were used to deal with companies that were perceived to have breached the law, evaded or delayed tax payments. In some cases, their managers were detained.

¹ https://knowledgehub.transparency.org/assets/uploads/helpdesk/Country-profile-Tanzania-2019_PR.pdf (accessed January 2021).

Significant damage was done before the government saw the need to moderate the approach. For example, Gerald (2020, p. 4) reports that on April 27 2020, the Executive Director of the Tanzania Investment Centre, a government agency charged with facilitating investments warned that: *“The tax authority has been closing businesses accused of not paying taxes...the approach is discouraging local and foreign investors and scaring away potential entrepreneurs.”*

This sentiment came after the private sector had endured at least three years of a crackdown by the tax authority, which led to business closures and to the loss of existing and potential investors.

Some prominent investors were arrested and charged with corruption or money laundering crimes – some of them remaining incarcerated for years. In 2020, the government passed a law that allowed them to enter a bargain plea with the Director of Public Prosecution. Scores of entrepreneurs were released from jail after bargain pleas under which they paid hefty fines.

State enterprises were re-established or strengthened, and preference was generally given to state owned entities when procuring a range of works and services such as construction, consultancy, air travel, telecommunications, conference facilities, ICT, property rental. Apparently, the motivation was to combat tax evasion and corruption in procurement and to manage government expenditure. This, however, severely affected private companies involved in these sectors, leading to cut downs on employment and taxes, therefore lowering their indirect economic contribution such as procurement, training opportunities, and inspiration for potential investors, including the youth.

It is unclear whether these policies integrated in their design the negative collateral impacts on local and foreign investors' confidence and on the attractiveness of the country. Under the 5th phase government, debating government policy was not tolerated. Most individuals, public and private sector leaders, members of parliament and the civil society avoided it after witnessing what befell those who tried to debate or criticize government decisions. Since many of the stances towards the private sector were not declared government policy, it is possible that some public sector officials took the crackdown further than the President intended.

Although the effects of the 5th administration's approach to dealing with state and private companies has not been systematically analysed, anecdotal evidence shows that these policies severely affected the private

sector. Some businesses closed down, and some established entrepreneurs relocated to neighbouring countries. Between 2005 and 2015, Tanzania was one of the most preferred destinations for foreign investment in Africa; being among the 10 biggest recipients of FDI in Africa. According to the Bank of Tanzania (BOT) reports, the FDI inflows increased from US\$ 1.23 billion in 2011 to US\$ 1.51 billion in 2015. The trend dropped to an average of US\$ 924.4 million between 2016 and 2018 in response to the deteriorating business environment.

In March 2021, the 5th phase President John Pombe Magufuli passed away. In line with the Constitution, the Vice President, Ms. Samia Suluhu Hassan, took over the Presidency. The government started reversing many of the problematic approaches, including allowing the public to constructively debate and criticise the government and forbidding many of the damaging economic governance practices such as unfair taxes, closing and forcefully collecting money from investors' bank accounts with outstanding tax bills and other forms of investors' mistreatment. President Samia Suluhu has been on a mission to restore investor confidence and attract private sector's investments since assuming office in mid-March 2021.

2.5. The Covid-19 Pandemic

The current Covid 19 pandemic came as an additional blow to the private sector as it was still reeling from the effects of the crackdown by the 5th governmental phase affected by the other drivers of vulnerability listed above.

Since the first COVID-19 case on March 16th, the government implemented less stringent responses compared to other countries, including its neighbours. The government emphasized that COVID-19 was a disease like any others and advised citizens to resort to prayer and traditional remedies to combat the disease. By April 29, when the data was last released, 509 confirmed cases were reported. Since May 2020, tests are only performed for patients and for people planning to travel.

Businesses, including bars and restaurants have always remained open, although large gatherings, schools, colleges were temporarily banned, before being allowed again in late June 2020. Similarly, educational institutions were briefly closed and allowed to operate since the end of June 2020. This approach allowed the country to limit the economic

disruption. Despite the limited containment measures, the private sector was seriously affected by the pandemic. Tourism, one of the cornerstones of Tanzania's economy, contributing about 17.2 % to its gross domestic product, representing over 600,000 direct jobs and 25 % of foreign investment was severely impacted (URT, 2020). This resulted in multiplier effects on jobs, incomes and businesses in most sectors.

3. Factors Underpinning the Vulnerability and Resilience of the Private Sector

From the above discussion, as well as from various other analyses, there are several factors that contribute to the vulnerability and to the resilience of the private sector in Tanzania. These are summarized below:

Tab. 1: Drivers of vulnerability

Governance	<ul style="list-style-type: none"> • Complex and costly business regulations, for micro and small businesses • Inconsistent and unpredictable policies and regulations • High, duplicative, unclear taxes, fees, levies • Lack of legal protection for informal micro enterprises • Fake and counterfeit inputs and products due to weak enforcement • Unfair competition from informal operators and smugglers • Crowding out of the private sector in some activities
Poverty	<ul style="list-style-type: none"> • High levels of poverty mean daily needs and emergencies can deplete or wipe out capital for micro enterprises. • High levels of unemployment and dependency place serious strain on low-income earners' businesses • Most businesses are informal and unable to operate within the legal framework
Social cultural factors	<ul style="list-style-type: none"> • High value placed on (and high cost) of social events (burials, weddings, initiations, etc.) often depletes capital. • Women handle disproportionate burden of family upkeep and are often denied some property rights and voice
Access to financial services	<ul style="list-style-type: none"> • Low level of financial literacy • Lack of collateral • High interest rates • Lack of health and other forms of insurance
Awareness and capacity	<ul style="list-style-type: none"> • Low level of technical and business skills • Limited availability of appropriate and affordable extension/business development services

Tab. 1: Continued

Organization and voice	<ul style="list-style-type: none"> • Absence of efficient economic groups or cooperatives • Limited advocacy skills
Weak infrastructure	<ul style="list-style-type: none"> • Lack of appropriate workspace • Lack of land zones for specific types of businesses • High cost of power and power outages • Poor road access (especially in rural areas)

Sources: Wangwe and Mmari (2014), Olomi, Urassa and Juma (2018), URT (2018), Wangwe (2018)

Some of these factors account for resilience of the private sector. For example, despite its many drawbacks, informality provides the opportunity for persons with low levels of resources and skills to flexibly engage in the entrepreneurial journey with very limited resources, to operate on a seasonal or part-time basis and to switch activities and sectors depending on opportunities. Extended families can be a drain on resources but can also function as a source of cheap labour and a form of insurance against calamities and unemployment. While social relations can be a drain in capital, an increasing number of people have turned them into informal sources of revenue. For example, in 2006, a third of the population was served by informal community financial groups, family and friends and by 2015 there were approximately 23,000 informal financial service providers with 700,000 members and an estimated capital of Tshs. 86 billion (URT, 2017).

4. Conclusion

This chapter has offered an overview of the economic development (and of the private sector) in Tanzania, highlighting the main drivers of vulnerability and resilience. It can be concluded that the private sector has suffered multiple blows, all the way from pre-independence days arising mostly from drastic policy changes with consequences that were not sufficiently considered. The first blow was experienced by the indigenous enterprises which were smashed by colonial regulations. The Asian and European dominated formal private sector was systematically suffocated through the socialist policies adopted by the 1st independence administration. The public enterprises established during the socialist experiment also failed miserably. When the private sector attempted to regrow to fill the void left, it was crushed once again.

Global economic reforms and a new administration in the mid-1980s provided the opportunity for policy re-orientation which encouraged private investments. Unfortunately, the transition was so hastily implemented that the remaining parastatals and most privatized ones as well as the few private companies that had been established, were not prepared for the stiff competition from more efficient foreign investors and imports. Slowly however, indigenous enterprises re-emerged. Many suffered another blow during the crackdown against corruption. It can be concluded that successive administrations and the country itself could have achieved far more in terms of development if major policy changes were adopted after consultations with the private sector, enabling them to build on the capabilities that were already in place while addressing identified gaps or new policy goals.

It can be argued that the three well-intended crackdowns in 1967, in 1983 and in 2015–2021, respectively, resulted in pulling down the entrepreneurial and productive capabilities of the economy.

In addition to these crackdowns, the private sector had to contend with costly and sometimes ambiguous or unpredictable policy and regulatory environments as well with limited capacity and awareness. The COVID 19 pandemic has worsened the situation even further.

Although there are many factors contributing to the resilient nature of the private sector in the face of these challenges, they were never able to compensate the disruption in economic activities, incomes, and livelihoods by the various policy shifts.

The main lesson from this experience is that even when with the best intentions, governments should take more time and engage in consultations before taking measures which can potentially reverse gains already achieved in a productive capacity. This could enable to prepare the economy better in countering natural calamities, such as the COVID-19 pandemic and others.

It should also be emphasized that the private sector is more likely to thrive in a state of policy consistency and predictability. Ambiguities in policy stance could be just as damaging as bad policies.

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Part I

SOCIO-ECONOMIC REALITIES AND IMPACTS

Chapter 1

Informal Workers in Tanzania: Coping Strategies and Resilience Factors

WILLIAM AMOS PALLANGYO¹

1. Introduction

The informal sector takes a larger share of economic activities in Tanzania as it employs around 80 % of the population. However, the sector faces several constraints, including the recent Corona virus (COVID-19) pandemic. The pandemic has affected both formal and informal sectors worldwide. While the actual impacts on informal workers and their coping strategies in Tanzania remain unknown, this chapter gives a comprehensive overview of its consequences. Although Tanzania has not experienced a strict lockdown, some sectors such as tourism, international and regional trade, agriculture, petty trade and private investments are experiencing comparative negative impacts from the pandemic related restrictions. This chapter addresses the socio-economic conditions of informal workers in the current context and situation. It further points out some coping strategies adopted by informal workers as resilience factors. Lastly, it revisits the existing public measures and suggests more policy responses to support the informal sector.

The chapter is based on a systematic search that was performed out of government documents and accessible peer-reviewed articles published from December 2019 to December 2020. The review included informal workers' literature, social protection policies and other information related to the impacts of the pandemic. The chapter is centred on informal tourism, petty trade and small-scale farmers. The sampled respondents were selected from three administrative regions namely, Dar

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es Salaam, Arusha and Mbeya. Dar es Salaam is a business capital city of Tanzania, with a larger population of over 4.3 million people who are mostly employed in the informal sector. Arusha is the most popular touristic region and Mbeya is among the major producers of cereals in the country.

The interviews were administered to 140 informal workers with the following age brackets: 0–35 years (61.94 %), 36–45 years (26.12 %), 46–55 (9.70 %) and 56–65 years (2.24 %). It was observed that most of the informal workers in the country are in the youth age group. The married informal workers were 50.36 %, singles were 45.99 % and widows/widowers were 3.65 %. In terms of education levels, 28.68 % were university graduates, 22.79 % had a diploma, 33.09 % had secondary education, 12.50 % had primary education and 2.94 % had not completed primary school. In terms of respondents' occupations, 24.64 % were involved in small-scale farming activities such as the selling of cereals, 53.62 % were doing petty trade and 21.74 % were involved in informal tourism activities. The chapter explores and provides answers to the following three questions: What are the impacts of the COVID-19 pandemic on the socio-economic conditions of informal workers in Tanzania? What are the coping strategies of informal workers after COVID-19 in Tanzania? and lastly, what should be the best policy responses to address the pandemic's effects in Tanzania?

2. The COVID-19 Pandemic's Magnitude Worldwide and in Tanzania

The coronavirus (COVID-19) is an infectious disease caused by the severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) (Bchetnia et al., 2020). Although the first case was detected in China, the plague has become disastrous worldwide. The July 2021 World Health Organization statistics already indicate that globally there have been 184,105,272 confirmed cases of COVID-19, including 3,988,565 deaths (WHO, 2021). Statistically, there is a continuous increase of new cases as summarised in Fig. 1.

Although the COVID-19 pandemic is still relatively recent, it is expected to create a severe economic slowdown. The early forecast by the International Monetary Fund (2020) pointed out that the global economy would contract by about 3 % in 2020. The World Bank (2020)

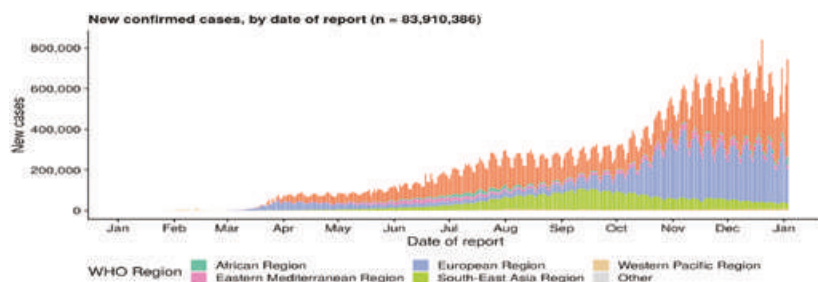


Fig. 1: New confirmed COVID-19 cases between January 2020 and January 2021

forecasted a 5.2 % contraction in global GDP. Similarly, the OECD (2020) forecasted a fall in global GDP by 6–7.6 %, depending on the emergence of future waves of COVID-19. All these forecasts are calling for detailed studies on the impacts and coping strategies in various socio-economic activities including the informal sectors.

The countries worldwide have adopted several public health measures to prevent COVID-19 from spreading, including social distancing (Fong et al. 2020). Other COVID-19 measures include the closure of businesses, schools, community centres, prohibition of mass gatherings, lockdown and restricted local and international travels. However, history confirms that pandemics do cause severe negative impacts on economic activities, at least in the short run. These impacts range from an avoidance reaction due to social distancing measures (individuals might forgo consumption and purchases of certain goods and services), small direct costs (hospitalization and medical costs), larger indirect costs (loss of labour, production), and offsetting or cascading effects such as the disruption of services and travels (Jonas, 2013).

The COVID-19 pandemic is a major economic shock, and it presents significant repercussions in terms of unemployment and underemployment for informal workers. The COVID-19 pandemic has affected businesses all over the world. It has led to the shutdown of countless companies. Families might resort to negative coping strategies such as the distressed sale of assets, resorting to loans from moneylenders or child labour (FAO, 2020). Most countries were caught unprepared on how to handle COVID-19 despite decades of warnings regarding the threat of global pandemics (CFR, 2020). The evolution of the disease and its

economic impact were highly uncertain, which makes it difficult for policymakers to formulate an appropriate macroeconomic policy response (McKibbin and Fernando, 2020). Equally so, the countries had insufficient information for the policymakers to address various sectors including sanitary measures. While many studies are needed in the medical sector about COVID-19 prevention and curing, more studies are also needed to cover socio-economic perspectives and impacts.

3. Overview of the COVID-19 Pandemic in Tanzania

The impacts of COVID-19 are being felt in different ways and the measures taken by respective governments also differ in their focus and comprehensiveness. For instance, in Tanzania, the first COVID-19 case was reported on 16 March 2020. Through WHO guidelines, the country provided a number of recommendations including discouraging all forms of public and religious gatherings as well as social distancing to prevent further spreading of the disease. In the aftermath, the Tanzanian government imposed a ban on public gatherings (except for worship), political meetings and sport, music and community events. Additionally, the government closed down schools and universities, suspended all the international flights and mandated the wearing of facemasks.

However, the COVID-19 containment measures in Tanzania were markedly less strict than in many Eastern African neighbouring countries. Tanzania's unique coronavirus policy is slightly less strict than the one of neighbouring states. Zambia, Kenya, Uganda, and Rwanda have adopted broader measures such as hand hygiene, cough etiquette, face masking, social distancing and occasional lockdowns (Ongawae and Ongawae, 2020). Moreover, on May 18, 2020, the authorities lifted the suspension of international flights in and out of Tanzania. Effective since June 1, 2020, the authorities also allowed the opening of upper-secondary and tertiary schools as well as the resumption of sport activities and events. On June 29, 2020, all other educational institutions reopened. As a result, all restrictions due to COVID-19 were lifted by July 2020.

4. The Informal Sector in Tanzania

The informal sector consists of informal enterprises and own-account workers (Schwettmann, 2020). The ILO (2018) report indicates that

informal employment is the main source of employment in Africa, accounting for 85.8 % of all employment. About 90 % of workers in developing countries rely on the informal economy (Bonnet, Vanek, and Chen, 2019). On a worldwide scale, there are approximately 2 billion informal workers identified as individuals with casual work arrangements or no fixed salary (ILO, 2020a).

The informal sector is a source of employment for a majority of poor Tanzanians (URT, 2007). The country has experienced a notable increase in the total number of employees in the informal sector (NBS, 2014). The Integrated Labour Force Survey (ILFS) of 2014 pointed out that 40 % of all households in Tanzania mainland were occupied in informal sector activities. The contribution of the informal sector in the country's economy is huge and covers a wide range of activities. The informal sector is an important source of employment for many poor Tanzanians (URT, 2007). The sector comprises small units, largely based on kinship and specializing in narrowly defined products or general merchandise (Wangwe and Mmari, 2014). It mutually covers the self-employed in unofficial businesses (unincorporated or unregistered enterprises) as well as unofficial jobs (without social protection through their work) (ILO, 2002).

The COVID-19 pandemic has quickly revealed the vulnerability of informal workers. The informal workers are neither visible in social protection programs nor protected by formal sector employment (ILO, 2020a). Tanzania, as many other countries, has been economically and socially affected by the spread of COVID-19. The number of COVID-19 reported cases was relatively low² and restrictions were lifted in Tanzania by July 2020. This being said, the pandemic has negatively affected both the economic formal and informal sectors. The effects of COVID-19 are widely noted in agriculture, health, hospitality, tourism, education and banking among other sectors. The literature points out a loss of income, especially for the people working in the informal sector who survive on daily hand-to-mouth incomes, a reduction in income from remittances and the disruption of food systems (Demeke and Kairuki, 2020; ILO, 2020, UN-habitat and WFP, 2020).

The COVID-19 pandemic has triggered unemployment and underemployment for many informal workers. The livelihoods of the

² Although the exact figures are unknown.

self-employed and wage workers were disrupted by lockdowns and restrictions of movement. The informal economy is indeed particularly vulnerable to health shocks as informal workers are mostly not covered by social protection systems. Livelihood earnings from low and irregular incomes are inadequately represented in local and national governance structures and unprotected by labour laws (Schwettmann, 2020).

The informal workers remain an exceptionally vulnerable group to the economic and labour market shocks of the COVID-19 pandemic. The latter has affected almost all spheres of life. Most of the social-economic activities have either been halted or been scaled down in an effort to arrest the spread of the pandemic. McKibbin and Fernando (2020) opine that infectious diseases of a pandemic nature can affect households, governments and businesses in different ways, can increase business costs, public health care expenditures and can finally change labour supply due to mortality and morbidity.

The COVID-19 pandemic has had significant impacts on the unemployment and underemployment of informal workers. Almost 1.6 billion informal workers are significantly impacted by lockdown measures and/or working in the hardest-hit sectors worldwide³. So far, there were no strict lockdowns in Tanzania, but the activities were disrupted due to the closure of some businesses, schools, universities, as well as due to the restrictions of movements to and from neighbouring countries. Social distancing and other measures also affected the ability of informal workers to provide for their families. There are direct and indirect economic relations between the formal and the informal sectors. The relationship and its implications are vividly seen, as many organizations have scaled down their operations. The tourism, international airlines, food and recreation, sports and arts sectors employ many informal workers, and are among the most affected industries in the country.

Although public servants and formal workers are less impacted, informal workers have endured more hardship. The restrictions on the international movements of people have affected imports and exports. The sudden downscaling of economic activities to contain the propagation of COVID-19 is having a strong impact on informal enterprises⁴. In such

³ https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms_743146.pdf

⁴ https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/briefingnote/wcms_743623.pdf

circumstances, it is expected that coping strategies are most likely going to be pursued by the affected informal workers. Although there are no studies on this available yet, we could assume that the informal workers may resort to spiralling negative coping strategies such as the sale of assets, loans from relatives and money lenders, indecent work or child labour. This has indeed been a warning of international organizations such as UNICEF and the World Food Program.

5. The Main Impacts of the COVID-19 Pandemic on Tanzania's Informal Workers

The results indicate that the impacts of COVID-19 are affecting, at most, the foreign-linked sectors such as tourism, petty trade and agriculture. Before COVID-19, Tanzania was one of the top three growth performers in East Africa. Between 2013 and 2018, the Tanzania average GDP growth was 6.5 %. Tanzania was behind Ethiopia with a growth of 9.5 % and Rwanda with a growth of 6.7 %. Growth was expected to remain positive but is dipping sharply to 2.5 % in 2020. Growth in private investment is estimated to fall severely, from 8 % in 2019 to 4 % in 2020, due to the surge in global uncertainty, reduced capital inflows to the region and increased investor risk aversion across all sectors of the economy (World Bank, 2020).

The budget speech of 2020 pointed out that Tanzania's GDP growth was expected to decline. Government estimates showed that economy's growth was expected to decrease from the forecasted 6.9 % for 2020 to approximately 5.5 % (MoFP⁵ Budget speech, 2020). The potential decrease in GDP was attributed to expected decline in the tourism sector's growth following the global travel restrictions and closure of the hotels. The decrease was associated with a decline in international trade due to supply chain disruptions, and waning international demand for mineral exports and commodities, as well as an imminent slowdown of most of domestic economic activities. The reduction of economic growth was expected to potentially affect the government's fiscal space in mitigating both the looming health and economic crisis (TCDD, 2020).

Overall, the COVID-19 pandemic is affecting people's welfare and household livelihoods, particularly those relying on self-employment and

⁵ Ministry of Finance and Planning

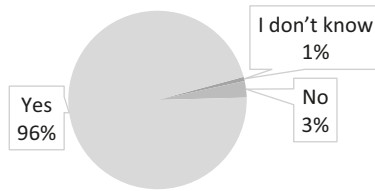


Fig. 2: The effects of COVID-19 on informal workers- Answer to the question “Did the COVID-19 pandemic have impacts on your activity?”

Source: Field data November, 2020

informal/ micro enterprises. World widely, the enforcement of stringent measures on COVID-19 has inadvertently disrupted the informal sector in terms of the permanent loss of livelihoods, capital and savings and employment (CRS, 2020). Job losses were concentrated more intensively in the service sector where workers have been unable to work off-site including informal workers. The study traced whether COVID-19 had affected informal businesses and it was established that 96 % of surveyed informal worker businesses in Arusha, Mbeya and Dar es Salaam had been affected as shown in Fig. 2.

The impacts of COVID-19 on informal workers indicate that the impacts varied but the most noted impact was the decline of income. This was probably attributed to the fact that Tanzania did not opt for a total lockdown, which allowed most businesses to be opened throughout the pandemic. Moreover, other impacts included the closing of some businesses, loss of capital, loss of employment, insufficient savings and food scarcity to a small extent as shown in Tab. 1 below.

Tab. 1: Impacts of COVID-19 on informal workers in Tanzania

Impacts of COVID-19	Frequency
Loss of capital	48
Closing of some businesses	67
Decline of income	84
Insufficient savings	38
Loss of employment/redundancy of some workers	43
Food scarcity	16
Other	6
Total	302

Source: Field data November, 2020

The study made a comparison of the average income of informal workers before and after the COVID-19 pandemic in the informal tourism sector in Arusha, petty traders in Dar es salaam and the small-scale farming sector in the Mbeya region. The trends indicated a decrease of income in their trades as shown in Tab. 2 and Fig. 3 respectively.

Tab. 2: The average income of informal workers before and after COVID-19

Informal Workers Average Income	% Average Income Before the COVID-19 Outbreak	% Average Income After the COVID-19 Outbreak
Above 129.9USD	35.29	6.62
Below 21.7USD	1.47	50.74
Between 21.7USD to 43.3USD	25.74	19.85
Between 43.3USD to 86.6USD	19.85	14.71
Between 86.6USD to 129.9USD	17.65	8.09

Source: Field data November, 2020

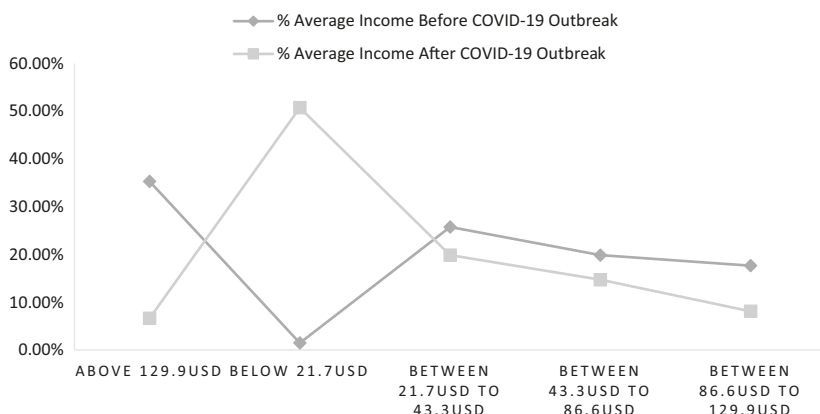


Fig. 3: Income comparison of informal workers before and after COVID-19

Source: Field data November, 2020

6. Analysis by Sectors

The effects of COVID-19 are widely noted in the sectors of agriculture, health, hospitality, tourism, education and banking among other

sectors. This chapter focused on three sectors, namely tourism and hospitality, small-scale farmers and petty traders.

6.1. The Impacts of COVID 19 for Informal Workers in the Tourism and Hospitality Industry

Across the world, the tourism sector contributes as a source of employment, Gross Domestic Product (GDP) and foreign exchange inflows. The tourism sector creates 8 % of the global GDP and 10 % of employment worldwide (WTO, 2020).

The contribution of the tourism sector is further quoted from the UN Secretary-General (Antonio Guterres): “*Tourism is one of the world’s most important economic sectors. It employs one in every ten people on earth and provides livelihoods to hundreds of millions more.*”

However, the COVID-19 pandemic has brought international travel to an abrupt halt and has significantly impacted the tourism industry (UNCTAD, 2020). The restrictions on air travel, mandatory quarantine on arrivals, tourism and hospitality businesses shutting, have led to an unprecedented shock to both formal and informal sectors. The UN World Tourism Organization reported that during the second quarter of 2020, for the first time ever, 100 % of global destinations introduced travel restrictions. The international tourism was almost totally suspended and domestic tourism curtailed due to lockdown conditions. The analysis indicates that of 217 destinations worldwide, 45 % totally or partially closed their borders for tourists and 30 % totally or partially suspended international flights. The report also points out that 18 % of the destinations had banned the entry for passengers from specific countries of origin or passengers who transited through specific areas, 7 % were applying different measures, such as quarantine and self-isolation or visa restrictions⁶. The closure of borders with little or no prior notice during the COVID-19 crisis left millions of tourists stranded abroad for periods which, in some cases, surpassed a month⁷.

In the Tanzanian context, the tourism sector is mostly affected due to international travel restrictions. The tourism and hospitality industry

⁶ <https://www.unwto.org/news/covid-19-travel-restrictions>

⁷ <https://www.unwto.org/recommendations-for-the-assistance-to-international-tourists-in-emergency-situations>

is one of the major sources of employment, tax revenue and foreign exchange earnings in the country. The sector contributes to around 10 % of Tanzania's GDP. In the 2019 financial year, the total value of foreign exchange earnings generated from tourism amounted to USD 2.557bn (URT, 2019). However, there are strong linkages between tourism and the informal sector. The number of tourists that visit the country annually affects the employment of formal and informal workers, and the supply chain income. When the number of tourists decrease, it negatively affects many industries including hotel activities, international air ticketing, local charter flights, food and beverages, culture and arts.

The Ministry of Tourism and Natural Resources budget speech of the 2020 financial year indicated that, following COVID-19, 21 airlines immediately cancelled an estimated 632 trips destined for Tanzania starting from March 2020 on. Almost all tourist hotels in Dar es salaam, Zanzibar and Arusha were closed down resulting in the layoff of numerous workers. Complementary activities like tours, recreation and food delivery were also stalled. The Ministry's projections show that employment in the tourism sector may drop from 623,000 to 146,000 while the number of tourists is expected to drop from 1,867,000 to 437,000. Revenue forecasts show that there may be a decrease of revenue from 2.6 trillion to 598 million (MNRST Budget speech, 2020/2021). Without the COVID-19 pandemic, in the 2020 season, the sector would have attracted approximately 1.9 million tourists and generated a revenue of TZS 2.7 trillion (US\$1.16 billion) and provide direct employment to 622,000 people (URT, 2020b). Further repercussions in the tourism sector included the closure of businesses, changing strategies, economic slowdown and bankruptcy as elaborated in the subsequent sections.

6.1.1 Closure of Tourism-Related Businesses

The findings in Arusha, the leading tourist city in Tanzania, have indicated that informal workers in the tourism sector had experienced COVID-19 effects in various ways. Although there were no restrictions in the domestic economy, the sectors that are interlinked with outside markets like tourism and hospitality definitely felt the pressure. It was noted that many tourists had cancelled their reservations. These cancellations had a direct effect on formal workers and indirectly on informal workers in the tourism sector. They basically led to the closure of informal worker businesses as quoted:

“Our business is selling wooden sculptures to tourists...we have invested over ten years in this business, but at the peak of COVID-19 pandemic there were no tourists and were forced to close down, we literally stayed home for almost two months.”

“I work as a tour guide leading tourists to climb the Mount Kilimanjaro... We are not employed as permanent and pensionable employees, from March to May 2020 it was a straight loss in our business... most of the tours companies in Arusha had to close their offices and some remained with the necessary staff only.... Some of us were given unplanned leaves.”

Changes in the business strategies

We could observe that the informal workers were the first to experience the hardships caused by COVID-19 in the tourism sector. Overall, Tanzania had no total lockdown hence other business and livelihood activities were on-going with the exception of the tourism and hospitality industry. The informal workers had to change their business strategies during the first peak of the pandemic as quoted:

“We sell various carvings, gemstones, artefacts, clothing and books to tourists at the Cultural Heritage Centre in Arusha and our major clients are tourists... during the first peak of the COVID-19 pandemic there were very few customers... yet we had to pay the rents...I decided to close my stall and to keep my stock in the store, to wait for authorities to lift the ban on international flights.”

“I was a tour driver... before COVID-19 we used to get many tourists who wish to visit Arusha National Park which is just a short (1 hour) drive from Arusha city....It was a well-paying job. However, COVID-19 made me change and start working as a taxi driver for livelihood.”

“We do biking tours in Mateves, the outskirts of Arusha...during the COVID-19 we had to do other activities to survive...I had to change one of our offices to be a barbershop and my brother had to engage into farming and livestock keeping.”

6.1.2 Business Slowdown

The study established that most travellers in the tourism sector had decided to postpone their safari to 2021. The assumptions were that the COVID-19 pandemic will decrease after vaccination trials. Generally, there is a business slowdown in the tourism and hospitality industry. There are concerns about the future of both formal and informal businesses; many small business owners were specifically worried about losing customers.

The group of women in the Tengeru Cultural Tourism Program was quoted as follows: *“We used to receive some tourists who wish to learn culture and stay in the small farms in the Southern and Eastern slopes of Mount Meru where we grow bananas and coffee, vegetables and corn.... such tourists made contributions to our businesses... we used to benefit from the sale of traditional food, from guest houses and traditional dances....at the moment the business is slowing down”*.

6.1.3 Bankruptcy

Many informal workers in the tourism and hospitality industry observed a sharp decrease in business due to booking cancellations – some pointed out feeling concerned about their finances. The findings indicate that if the COVID-19 pandemic will continue, informal workers in the tourism and hospitality industry in Tanzania will most likely succumb to bankruptcies. Contrary to other businesses where there is a possibility of getting local clients, most tourists originate from foreign countries, as noted *“Usually, the tourists’ high season in Arusha falls between June to September months, when you can easily spot wild animals. Knowing that we spent much of our savings to buy the needed raw materials for our artefacts business and that all the orders were cancelled, we find ourselves in deep trouble as some capital was a loan...I think of selling assets.”*

6.2. The Impacts of COVID-19 on Petty Traders

The study assessed informal workers in the sector that accounts for around 75 % of all jobs in Dar es Salaam. It was observed that the outbreak of COVID-19 had consequences for petty traders and their business. Many people’s livelihoods were affected by the pandemic: many of them had to bid farewell to their usual income. It is no exaggeration to write that almost everyone in the informal sector has felt the repercussions.

6.2.1 Disrupted Livelihoods

The study noted that petty traders were the most affected by COVID19 as their livelihoods were disrupted. They simply lacked the resources and capital to run their businesses and to feed their families. Businesses were disrupted by the restrictions that posed difficulties on the importation of goods. Informal workers expressed having problems in paying their taxes

and experiencing a decrease in business capitals. Even though Tanzania's COVID-19 cases were not reaching the highest records there have been notable challenges, especially on international trade.

6.3. The Impacts of COVID-19 on Small-Scale Farmers

The World Food Programme (WFP) reports point out that the socio-economic impacts of COVID-19 may compromise recovery for populations prone to food insecurity, create disruptions of food systems, particularly markets and generate a loss of income sources⁸. The Food and Agriculture Organization (FAO) report of July 2020 further indicates that the effect of the pandemic has adversely influenced food and nutrition security of rural livelihoods in Eastern Africa.

The impacts of the pandemic in the sub region reveals disruptions in accessing agricultural inputs (including labour), extension and advisory services, and output markets for many farmers⁹. There is an interdependence of food supply between countries in East Africa. In any shortage of cases, small-scale farmers can sell or buy food from neighbouring countries. However, food supply chains and markets are disrupted due to lockdowns and restrictions of movement. The lorry drivers between East African countries were subjected to COVID-19 testing, quarantines, and the closure of roads. The COVID-19 measures played havoc with logistics and compromised the normal food supply.

The closure of learning institutions and the restricted opening hours of restaurants and nightclubs led to the loss of selling and buying opportunities, and decreased the demand for agricultural products and labour. Usually the learning institutions and school-feeding programs directly seek food supply from local producers. The closure of schools had significant negative impacts on informal workers in rural areas who are involved in small-scale farming and related activities. The respondents pointed out that some were relying on feeding the schools and university students and schools' closure meant the loss of reliable markets for crops such as potatoes, vegetables and cereals.

⁸ <https://docs.wfp.org/api/documents/WFP-0000116172/download/>

⁹ <http://www.fao.org/3/cb0552en/CB0552EN.pdf>

The agricultural sector contributed 27 % to Tanzania's GDP in 2019 employed about 67 % of Tanzania's total workforce and generated about 24.7 % of the foreign earnings from exports of goods (URT, 2020). Overall, there are no significant spikes in food prices due to COVID-19 yet but there have been some issues with the access to markets and consumers' occasional purchasing frenzy¹⁰. It was also noted that agriculture products that require exports were affected by the pandemic. Following partial or total lockdown directives from several governments, demand for horticultural products has declined by over 50 %, which has also impacted the amount supplied. The majority of horticultural products in Tanzania are directed to the export market – horticultural production, worth about USD 63,684,799, is exported monthly from Tanzania to international markets. The pandemic has affected the export business by more than 80 %, costing the country much-needed foreign currency to a tune of about USD 50,947,839 per month (FAO, 2020).

6.3.1 *Slash in Informal Worker Jobs*

Horticulture in Tanzania is labour intensive and has absorbed a huge number of Tanzania's labour force. A slash in jobs will directly affect more than 6,000 farms and factory workers. This effect will ripple down to more than 15,000 out growers, who have been contracted to grow for both exporters and processors (FAO, 2020).

6.3.2 *Transport and Logistics*

Almost all airlines have grounded their fleet and/or cancelled their schedules towards Tanzania. These airlines were being used to carry sizeable volumes of horticultural produce, especially high value, low volume cargos. This initiative has made the access to regional and international markets for horticultural products almost impossible for Tanzanian producers (FAO, 2020)¹¹.

¹⁰ <https://reliefweb.int/sites/reliefweb.int/files/resources/WFP-0000114452.pdf>

¹¹ (FAO, 2020) <http://www.fao.org/forest-farm-facility/covid/en-in-the-countries/covid-in-the-countries-tanzania/en/>

6.3.3 *Reduced Income of the Informal Workers in Small-Scale Farming*

It was noted that COVID-19 has led to a reduction of income for the informal workers who were directly or indirectly working in the agriculture sector. For instance, in the city of Mbeya, informal workers do benefit from the existence of training institutions. The closure of education institutions which are the main consumers of potato products, such as chips, has led to impoverished potato markets. The low prices of farm products during the pandemic have also had an impact on informal workers, as explained: *“I sell food crops in Mwanjelwa market---Our income was reduced by the COVID-19 pandemic.....the crops prices are low....we buy the crops from farmers in the village....the transport costs are high...what we get from the clients is relatively low... the money circulation is low.”*

Failure to attract customers to produced crops:

Although there is no total lockdown in Tanzania, the fear of COVID-19 spreading during gatherings of large numbers of people in local markets was observed between March and May 2020. Informal workers in small-scale farming pointed out that the number of market actors was reduced which resulted in less customers, as stated: *“We used to get clients from neighboring countries including from Malawi and Zambia... during COVID-19...the number of foreign customers was reduced.... We solely relied on local traders from other regions...the prices were somehow low compared to usual prices.”*

6.3.4 *Loss of Capital*

It was observed that informal workers experienced a loss of capital from their own businesses. The respondents were quoted saying: *“My capital is going down...I had fewer customers during the peak of COVID-19...the schools were closed, my five children were at home and consumption w high...I had to use my savings.”*, *“We work as agricultural input distributors.... We have shops in Mbeya.....between March and June, 2020 the importation of inputs faced challenges. The inputs did not reach us timely as per plan. We lost our capital.”*

6.3.5 *Closure of the Crop Markets*

It was noted that informal workers in small-scale farming faced a challenge of crops markets' collapse as quoted: *“The price of my crops*

went down... Initially I was getting a sale revenue of Tanzanian shillings 400,000/= per month... Due to the pandemic, my sales dropped to Tanzanian shillings 200,000 per month ... Most of the crops were exported to Zambia and Malawi...the closure of borders compromised the trade business circulation.”

The results reveal that small-scale banana farmers in the Rungwe district watched their fruit ripen because of a lack of markets. During the year 2020, there were no buyers for the banana market which was restricted to the Rungwe district and its neighbourhood. Usually, lorry drivers deliver agricultural produce from rural areas to urban wholesale markets but the fear of coronavirus cancelled many trips.

6.4. The Import and Export of Goods

Even though Tanzania did not close its borders, it still relies heavily on the importation of agricultural inputs from foreign countries. Lockdowns implemented overseas have had an impact on the availability and price of agricultural inputs on the local market. The pandemic led to a low purchasing power, an unavailability of agricultural inputs and a rising scepticism on doing farming activities.

6.5. The Upkeep of Employees/Labour Forces

The study recognized that the labour force in the informal sector is decreasing. For instance, transporters had difficulties to transport agricultural products to those areas influenced by the pandemic and outside of the country. There were also difficulties in the upkeep of employees.

7. Coping Strategies of Informal Workers in the COVID-19 Pandemic in Tanzania

Informal workers had several coping strategies in mitigating the COVID-19 pandemic including the adherence to COVID-19 measures, a change of business strategies, loans, sales of items, reduced number of employees and other strategies as described in Tab. 3.

Tab. 3: Strategies used to cope with the COVID-19 pandemic for informal workers

Strategies to cope with COVID-19	Frequency	%
Sales of assets	29	18.71
Loans	30	19.35
Child Labour	1	0.65
Low wages/salaries	37	23.87
Indecent work	4	2.58
Changing the business approach and locations	54	34.84
Total	155	100.00

Source: Field data November, 2020

7.1. Change of Business Locations and Approaches

Changing business locations and approaches was attributed to 34.84 % of informal workers' coping strategies. Informal workers mentioned a change in their business location as a coping strategy. This included working from home and moving their businesses away from the most populated areas. For instance, one of the informal workers decided to transfer her tailoring business from Dar es salaam city to Morogoro, a less populated area, following COVID-19 statistics. Some decided to use Information and Communication Technologies (ICT) to run their businesses. It included the use of mobile phones to communicate with their clients and distributing commodities by resorting to motorbikes. Others decided to post their commodities and goods on online platforms and on social media. However, online businesses had to experience the challenge of trust as most customers would inspect the goods before delivery. It was also noted that some informal workers had decided to sell COVID-19-related commodities. For instance, tailors placed more effort in making facemasks while some detergent manufacturers produced local sanitizers. It was further noted that even street vendors had capitalized in the sale of COVID-19-related items.

7.1.1 The Selling of Assets

It was found that 18.71 % of informal workers had decided to sell their assets as a coping strategy:

Our business is small. We sell accessories and ornaments....During the pandemic, we had very few clients per day...out of panic, we decided to buy enough food and to store it...As the time went on, we decided to sell our motorbike.

7.1.2 Loans

About 19.35 % of informal workers coped with reduced income through increased mortgages from banks and informal lenders. Some had to borrow more from family members and friends and to postpone the loan repayments that led to a risk of over-indebtedness.

7.1.3 Low Wages/Salaries

The informal workers, whether wage workers or self-employed, are among the groups the most at risk of losing their jobs and incomes. They do not have secure employment contracts, and therefore usually do not enjoy workers' benefits, social protection or workers' representation. The interviews indicate that 23.87 % of the respondents decided to lower wages and salaries as a coping strategy. Given the fact that the pandemic kept on rising, the employers opted for the retrenchment of informal workers or the slashing of their salaries and wages.

7.1.4 Child Labour and Indecent Work

Only 0.65 % of informal workers indicated child labour as an acceptable coping strategy. Although the number was not high, some informal workers entered into illegal activities to earn enough money to survive.

8. The Policy Responses to Address the COVID-19 Pandemic's Effects

COVID-19, like other major past crises, is likely to usher in economic, social and technological transformations. The testing was done according to public policy responses, and it was observed that the government of Tanzania has designed and implemented a number of interventions guided by its COVID-19 Contingency Plan in March–August 2020¹². There are also legal and regulatory frameworks guiding this outbreak such as the Disaster Management Act of 2015 (Act No. 7/2015) and other sectoral laws including the Public Health Act of 2009

¹² https://www.who.int/emergencies/diseases/novel-coronavirus-2019?gclid=Cj0KCQjwudb3BRC9ARIsAEa-vUv8gmWqgl5QIOP_qDnizU40f7WJv1s4Kbx-9Fl9GAWANpXTLH63rFrkaAlY8EALw_wcB

(Act No.1/ 2009). The Ministry of Health, Community Development, Gender, Elderly and Children has staged up the Risk Communication and Community Engagement (RCCE) team that involves governmental and non-governmental organizations.

The administrative committees were established by the Prime Minister's Office in March 2020. There are also legal and regulatory

Tab. 4: Proposed policy strategies to address COVID-19

Recommendations	Frequency	%
Continue to put enforcement on the guidelines provided by the Ministry responsible for health	5	4.17 %
Continue to put restrictions at the country's borders	1	0.83 %
Taking early precautionary measures	34	28.33 %
Provision of education awareness on pandemic diseases	15	12.50 %
Provision of employment opportunities to those who have lost their jobs	3	2.50 %
Establishing special departments specifically for handling the COVID-19 pandemic	1	0.83 %
Provision of friendly loans with lower interest rates to those who have lost capitals	1	0.83 %
Government to build markets in every ward to avoid congestions	2	1.67 %
Government to leave borders open for businesses	1	0.83 %
Government to strengthen the institutions responsible for COVID-19 pandemic diseases	7	5.83 %
Government to subsidize and reduce loan interest rates	1	0.83 %
Increasing number of professional doctors in local governments	2	1.67 %
Loans	6	5.00 %
Free provision of COVID-19 protective gears	6	5.00 %
Provision of reliable information from the government about the COVID-19 outbreak	4	3.33 %
Setting up an emergency budget to cover the informal sector	9	7.50 %
Provision of a stimulus package	1	0.83 %
Systems to enable the production of raw materials in the country	13	10.83 %
Tax reductions	6	5.00 %
Restricting unnecessary gatherings	2	1.67 %
Grand Total	120	100.00 %

Source: Field data November, 2020

frameworks guiding this outbreak such as the Disaster Management Act of 2015 (Act No. 7/ 2015) and other sectoral laws including the Public Health Act of 2009 (Act No.1/ 2009). The stakeholders’ representatives proposed policy strategies to address COVID-19 as summarized in Tab. 4 below.

8.1. Adherence to COVID-19 Measures

Informal workers came up with many strategies but 4.17 % proposed that the government should continue to put enforcement of the guidelines. They were informed that the Ministry responsible for Health had provided the guidelines to control and to minimize the spread of coronavirus. About 28.33 % of the respondents agreed that one of the best coping strategies is taking early precautionary measures. The respondents equally pointed out that they managed to protect themselves by ensuring that their working station had facilities such as hand washing, sanitizers, distance-keeping and mask-wearing in crowded areas. One of the interviewees stated as follows:

I managed to continue with my business although COVID-19 posed challenges... I adhered to all the guidelines provided by the government including the avoidance of unnecessary crowds, the use of masks, the use of sanitizers and we ensured that our shop was not crowded by our customers.

8.2. Policy Recommendations from the Government in the Informal Sector

Recommendations	Frequency	%
Close collaboration with the informal Sector	3	2.52 %
Continue to put restrictions at our borders	1	0.84 %
Educational awareness on pandemic diseases	3	2.52 %
Entrance fee should be reduced in national parks	2	1.68 %
Establishing precautionary measures to such diseases	1	0.84 %
Friendly loans with lower interest rate	18	15.13 %
Friendly policies should be implemented	1	0.84 %

Recommendations	Frequency	%
Government subsidy	17	14.29 %
Government to build markets to every ward to avoid to avoid congestions	9	7.56 %
Increasing job opportunities for youth groups	7	5.88 %
Informal sector policies should be put in place to protect those in the sector	1	0.84 %
Investing in agriculture to set a strong foundation in the informal sector should such events arise	2	1.68 %
Other	22	18.49 %
Provision of stimulus packages and incentives	3	2.52 %
Setting up an emergency budget to cover the informal sector	7	5.88 %
Stimulus package	1	0.84 %
The government should review tax policies as the majority informal workers cannot afford paying	21	17.65 %
Grand Total	119	100.00 %

Source: Field data November, 2020

9. Conclusion and Recommendations

Tanzania has dismissed the idea of registering COVID-19 cases and deaths. The dismiss is associated with a distrust in the cases that were announced, and the concern over the economic impacts. However, the government continues to enact measures to suppress the progression of the pandemic. Despite a decrease in restriction measures, there are still some limitations in accessing income-earning opportunities while trade with foreign countries has also been impacted. Informal workers are more hit by the COVID-19 pandemic than formal workers, and the current situation has significant effects on the economy in various sectors, including local and international trade, tourism, agriculture and financial markets.

This study found out specifically that informal workers, their consumers and businesses have paid a heavy tribute to the situation. The public governments have enacted measures to support the informal sector, but these policies will take time before coming into effect. The assistance may also not reach informal workers as the eligibility and qualification rules may exclude them from support programs.

Although Tanzania has opted for an unconventional approach to the COVID-19 pandemic, there is a need for policymakers to develop policies and strategies that will save lives and protect livelihoods, including:

- Strengthening income support to informal workers and support the most affected industries such as tourism, international and local trade and small-scale farming.
- Strengthening the health systems and ensuring that the COVID-19 pandemic is handled by adhering to WHO guidelines.
- Supporting the education system to ensure that a wide population is aware of the COVID-19 pandemic.
- Offering a stimulus/incentives package to the informal sector that is inadequately protected by social security funds.
- Providing a special waiver to commercial banks to relax loans.
- Coming up with special agreements with neighbouring countries to allow smooth and uninterrupted cross border movements.

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Chapter 2

The Socio-economic Impact of the COVID-19 Pandemic on Women and Girls in Tanzania

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1. Introduction Background

Labeled as a black swan event and likened to the economic scene of World War II, the outbreak of COVID-19 has had a detrimental effect on the global healthcare systems with a ripple effect on every aspect of human life as we know it (Nicola et al., 2020). According to the World Health Organization (WHO), as of 14-November-2020 already, 53.5 million cases of COVID-19 had been reported in 217 countries and territories, including 1.3 deaths. These figures have increased over time to reach 219 million reported cases and 4,55 million deaths in October 2021¹. COVID-19 is caused by the novel beta coronavirus SARS-CoV-2, which is genetically similar to but distinct from other coronaviruses responsible for global outbreaks such as SARS-CoV-1 and MERS-CoV (Yazdany and Kim, 2020). In Tanzania, the first reported case of COVID-19 was documented on 16-March-2020 (Tarimo and Wu, 2020). By mid-April-2020, the COVID-19 patients had increased to 254 with 10 deaths reported (Ministry of Health (MoH), 2020).

The rapid spread of COVID-19 globally forced countries across the world to adopt several public health measures intended to prevent its spread, including social distancing, closure of businesses, schools and community centres (Ozili, 2020). In addition to that, mass gatherings were prohibited, and lockdown measures were immediately imposed in many countries, allowing travel only for essential needs. The objective of these measures was to “flatten the curve”, i.e., reduce the number of new cases related to COVID-19 in order to halt exponential growth and

¹ The figures are likely to continue increasing over time.

hence lower pressure on medical services (Chen et al., 2020). In Tanzania, partial lockdown measures were taken on 17-March-2020 which lasted for three months.

Although the pandemic has created different local realities between the various countries and continents of the world, they are still one common worry and question: How have the COVID-19 mitigation restrictive measures created an impact on the poor communities around the world? Besides biological and epidemiological factors, the resulting global economic and social crisis are having a huge impact on people's lives and livelihoods. Stock markets have plunged, international trade has slowed down, businesses have gone bankrupt, and many people have been left unemployed². According to Zhang, Hu, and Ji (2020), global poverty could increase for the first time since 1990, posing a real threat to the UN Sustainable Development Goals (SDGs) for ending poverty by 2030.

The impact of the COVID-19 pandemic across the Tanzanian economy is profound. Market chains have been disrupted, businesses have closed or scaled back operations, and thousands of people have lost their jobs and livelihoods. The 2020/2021 National Budget predicts that the COVID-19 pandemic will reduce the economic growth in 2020 from 6.9 % to 5.5 % (Ministry of Finance and Planning (MoFP, 2020). According to Haleem et al. (2020), the pandemic and government interventions usually lead to mental health distress, increased economic inequality, and most importantly affect some socio-demographic groups adversely.

According to Sharma et al. (2020), women's economic and productive lives have generally been affected by the COVID-19 pandemic disproportionately and differently from men. In most developing economies women earn less, save less, lead less secure jobs and are more likely to be employed in the informal sector (Wenham, Smith, and Morgan, 2020). In Tanzania, a higher proportion of women (i.e., 82 %) are employed in the informal economy than men (i.e. 70 %) (Idris, 2018). They have less access to social protections and are the majority of single parent

² The International Labour Organization (ILO) (2020) estimates that as many as 25 million people could lose their job across the globe with a loss of workers' income of as much as USD 3.4 trillion. The ILO puts the global unemployment at 190 million at the moment. According to the most recent estimates, the vulnerable employment rate was at 76.6 % in Sub-Saharan Africa, with non-agriculture employment in the informal economy representing 66 % of total employment and 52 % in North Africa (ILO, 2015).

households³. Their capacity to absorb economic shocks is therefore less than that of men. A pandemic amplifies and heightens all existing inequalities (Peterman et al., 2020). For example, the Ebola virus outbreak showed that quarantine significantly reduces women's economic and livelihood activities, increasing poverty rates and exuberating food insecurity (Menéndez et al., 2015).

According to the National Bureau of Statistics (NBS) (2019), the percentage of Female Headed Households (FHHs) has increased from 18 % in 1991/1992 to 28 % in 2017/2018. Moreover, before the spread of COVID-19, a decline of 8.8 % in poverty was recorded in Female Headed Households (FHHs) from 2011/2012 to 2017/2018 (NBS, 2019). Unfortunately, more vulnerable groups of women, such as those working in the informal economy, are expected to suffer the most from economic downturn, increased informality and unemployment as a result of the pandemic. Gender inequalities have grown more acute, with girls being particularly vulnerable to exploitation in agriculture and domestic work. This could further push thousands of women and girls into poverty and Gender-Based Violence (GBV) and make these issues an imminent concern.

The evolution of the disease and its socio-economic impact on women and girls in Tanzania is however uncertain, thereby making it difficult for policy-makers to formulate appropriate policy responses targeting women who are the runners of the economy. Addressing the immediate impact of the COVID-19 pandemic on women and girls in Tanzania is crucial (Tanzania Women Chamber of Commerce - TWCC, 2020). While both men and women play a substantial economic role in the Tanzanian economy, women are more active than men. The female labour force participation rate at 80.7 % is slightly higher than that of men at 79.6 % and women constitute 50.6 % of the currently employed population in Tanzania (United Nations Development Programme - UNDP, 2017). Despite that, only 45 % of women are in paid jobs, in either the formal or informal sectors, compared with 98 % of men (Integrated Labor Force Survey (ILFS), 2018).

³ Looking at the marital status in Tanzania, 38 % of women are never married, 49 % of women are either married or living together, 6 % are divorced or separated, and 7 % are widowed (Fox, 2016).

Whilst socio-economic risks are not always immediately visible, experience shows that crises with high economic impact such as the COVID-19 pandemic worsen risk factors (including the push/pull factors) of gender inequalities and are likely to increase their prevalence. Thus, women and girls in Tanzania face higher risks of falling into extreme poverty.

This paper thus analyses the impact of the COVID-19 pandemic on society's most vulnerable segments which are mainly women and girls in Tanzania, using the case of the Tabora region. Tabora was selected for this study for several reasons. First, Tabora is among the poorest regions in Tanzania with one of the highest gender inequality index of 0.747 (NBS, 2017). Despite that, it figures among regions with the highest labour force participation rate for females (Kidane et al., 2018). It is also the region with the highest rate of Female Headed Households (FHH) in Tanzania whereby more than a half of them are single mothers, especially in rural areas (Katundu et al., 2013). It is also the leading region in child labour in Tanzania particularly for young girls (ILO, 2018).

Particularly, the study was carried out in the Tabora Municipal Council which is an urban district and in the Urambo District which is a rural district. This enabled the researcher to make a comparison of the socio-economic effect of the COVID-19 pandemic on women and girls in rural and urban areas. According to Idris (2018), there are more gender inequalities in rural areas than in urban areas.

This paper also assesses the relevance of the interventions made by the government which aimed at addressing the effects of the COVID-19 pandemic that are expected to manifest themselves in the longer run, particularly to women and girls.

Specifically, this study was set out to achieve the following:

- (a) To assess the socio-economic impact of the COVID-19 pandemic on women and girls.
- (b) To examine the implemented policy measures to tackle the socio-economic impact of the pandemic and their relevance to women and girls.
- (c) To determine future implications and make appropriate recommendations with regard to women and girls.

The rest of the paper is structured as follows. Section 2 provides a review of theoretical and empirical literature relating to the pandemic's

socio-economic effects. Section 3 describes the research methods used in this study as well as the types of data collected. Section 4 discusses findings of this study including the socio-economic impacts of the COVID-19 pandemic on women and girls, as well as policy response. Section 5 provides a conclusion.

2. Literature Review

2.1. Theoretical Underpinning

Pandemics are not new and have occurred at different stages in human history. The COVID-19 pandemic is recognized to be the most serious social and economic pandemic episode since the 1918 Spanish Influenza pandemic (Barro et al. 2020).

Eichenbaum, Rebelo and Trabandt (2020) address that question by integrating a macroeconomic general equilibrium model with the standard SIR model. In their SIR-Macro model, the prevalence of infection depends on the degree of interaction between agents when consuming and working, as well as the random chance of contracting the virus. They conclude that susceptible populations can lower the chances of infection by reducing their consumption activities and their labour supply.

While the SIR-Macro model abstracts from real-world problems such as bankruptcy costs, mass hysteria, loss of effective labour supply, and also do not consider dynamics present in other models such as consumption uncertainty, price rigidities, there are certain caveats that have been accounted for in the literature, namely incomplete information, infection externalities and risks across sub-populations. Bodenstein, Corsetti and Guerrieri (2020) rely on a supply-side perspective that is centred on the effects of the pandemic on the parts of the economy that provide essential inputs. The authors develop an integrated framework by combining a standard SIR model containing two groups of a heterogeneous population with a macroeconomic model. The transmission mechanism between the epidemiological and economic variables is through the change in labour supply, i.e. infected people cannot participate in the workforce, which is a direct cost of the disease. The economic activities are divided between two groups: “core” and “non-core” sectors with a low degree of substitutability in production between them. The former produce raw and intermediate inputs, while the latter produces final-stage outputs. The indirect cost stems from the fact that the slowdown/closure of core

industries will affect non-core industries through input-output linkages – what is typically called the “supply chains” in the media. Krueger, Uhlig and Xie (2020) also focus on heterogeneity across sectors by introducing a multi-sector economy with varying degrees of elasticity of substitution of consumption across goods. In this case, sectors differ according to the riskiness of consuming their respective services. Based on their model, susceptible households substitute consumption from the high-infection sector with those from the low-infection sector in the event of an outbreak. This re-allocation of spending patterns helps maintain a relatively stable consumption path and lowers the risk of being infected from participating – as either a provider or a consumer – in high-infection activities. According to the authors, with all other things equal, this “reallocation” of economic activity may help reduce the number of infections i.e., flatten the curve.

Other researchers try to model the endogenous response of economic agents and time varying nature of infection risks. Dasaratha (2020) provides theoretical propositions of behavioural responses to various changes in policies or infection levels. Alfaro et al. (2020) modify the existing SIR models to account for optimizing decisions on social interaction based on the infection risks. Typically, infection rates are taken as exogenous in SIR models. However, after accounting for heterogeneity in preferences, they find that preference traits, such as patience, altruism and reciprocity, play important roles in reducing the infection’s externalities. An approach that balances strict social distancing restrictions with social preferences is expected to help mitigate the economic and public health costs. To provide an example, Argente, Hsieh, and Lee (2020) find that public disclosure of COVID-19 cases in Seoul, South Korea led to a decrease in foot-traffic to neighbourhoods/areas with more cases.

Generally, a central focus of these models is the efficiency of that tradeoff, i.e. how to reduce the rate of infections at the lowest possible costs to economic welfare. The authors also analyse the benefits of social distancing measures in terms of value of statistical life and its implications in terms of realism.

2.2. Empirical Literature

The outbreak of COVID-19 made many poor communities in different places of the world face very challenging socio-economic and livelihood consequences. Pandemics are expected to have a severe negative

impact on economic activities, at least in the short run Binder (2020). Many countries in Africa, in an attempt to protect their citizens from COVID-19, have ordered a blocking of most socio-economic activities. This move however, has not favored the poor majority who mainly depend on daily wages to survive.

Based on global empirical literature, such as Ozili and Arun (2020), the socio-economic impact of the pandemic ranges from: (i) avoidance reaction due to social distancing measures such as individuals forgoing consumption and purchase of certain goods and services; (ii) small direct costs such as hospitalization and medical costs; (iii) larger indirect costs such as loss of labour, production; and (iv) offsetting and cascading effects such as the disruption of services, travel and others.

A three-part study conducted post-Hurricane Katrina concluded that consumer behaviours changed both during the immediate transition after the storm and years later (Kennett-Hensel, Sneath, and Lacey, 2012). Findings of the study revealed that increased acquisition and buying demonstrated immediately after the event was followed by a decreased consumption in the long-term; with some respondents indicating they were no longer willing to over-consume, less likely to overspend, and more careful in their choices. Nonetheless, in many disasters, women and girls are impacted the most because of their social status within the community.

Throughout Tanzania, women are less educated than men whereby men and women living in cities are more likely to have more education than rural residents. According to the UN Women (2020), women are hit harder by the economic impact of pandemics because most women work in low-paying, insecure and informal sectors. Populations that are mostly prone to risk during pandemics such as COVID-19 are those depending heavily on informal sectors and sectors which are endogenous, hence disposed to shocks.

In Tanzania, 51 % of women working in the informal sector are either employed or running micro and small enterprises. Main attributes of this sector include daily wages, limited social protection measures and savings, reliance on entrepreneurs (owner cum operator) which cumulatively make women vulnerable particularly at times like these (UNDP-Tanzania, April 2020). The situation is exacerbated by restrictions on movement, lowered consumer demand in export markets, reduced cross border trade and a total halt in the tourism sector. Furthermore,

women's sources of income are in sectors that are hard hit by restrictions on movement and lowered consumer demand in export markets. In Liberia, where approximately 85 % of market traders are women, Ebola prevention measures severely impacted women's livelihood and economic security (Davies and Bennett, 2016).

In rural areas where women mostly depend on agriculture, the sale of agricultural crops to foreign markets have been disrupted, affecting both small and large-scale farmers. Sudden emergence of unsold crops within the domestic market will pressurize prices to a level that will not be profitable. According to UNDP-Tanzania (2020), cross-border trading which accounts for 60 % of Tanzania's total export value had to close down because of strict restrictions along the borders. Women are the most affected as they constitute 70 % of all cross-border traders along the Tanzania-Congo, Tanzania-Kenya, Tanzania-Burundi and Tanzania-Rwanda borders. According to the Tanzania Women Chamber of Commerce (TWCC) (2020), women businesses in beauty, textile and others have reported an average decrease of 53 % of sales.

The reduction of business volume for women has led to delays in loan repayments, hence increasing the risk of collateral loss. Banks and Micro-Finance institutions (MFI) have shown a low level of flexibility to restructure trade credits and other loans. Over 70 % of the customers in microfinance banks and other MFIs in Tanzania are women (UNDP-Tanzania, April 2020). According to Bull and Ogden (2020) and McCracklin (2020), a slip in repayment rates from 95 to just 85 % would render many MFIs in Sub-Saharan Africa insolvent in less than a year.

Socially, adolescent girls and women are among the most marginalized and at-risk populations when outbreaks and emergencies such as COVID-19 occur (Rafaeliand and Hutchinson, 2020). Based on empirical studies or a similar analysis such as Cousins, (2020), the COVID-19 pandemic has impacted women and girls socially in the following ways: (i) increased risk of domestic violence; (ii) exposure to more violence and girls dropping out of school; (iii) increase of gender-based violence (GBV) and sexual violence due to the partial lockdown; (iv) increased burden of unpaid care work to women; and (v) interrupted access to sexual and reproductive health. For example, evidence from past epidemics, including Ebola and Zika, indicate that efforts to contain outbreaks often divert resources from routine health services including pre- and post-natal health care and

contraceptives, and often exacerbate already limited access to sexual and reproductive health services (Menéndez et al., 2015).

3. Methodology

3.1. Study Design and Framework

Similar to Oruonye, Ahmed and Idris (2020), this study employed a Rapid Assessment (RA) which involved a quick mapping of the socio-economic environment of Tabora Municipal and Urambo Districts in order to identify the effects of the COVID-19 pandemic on women and girls. To achieve this, the assessment focused on two periods: the pre-COVID-19 pandemic period (before March 2020) and the actual COVID-19 pandemic period (from March 2020 onwards).

Rapid Assessment is defined as an innovative, intensive, team-based qualitative inquiry using triangulation, iterative data analysis and additional data collection to quickly develop a preliminary understanding of the situation/problem/issue (ILO, 2020). Compared to other research methodologies such as large-scale surveys, rapid assessment makes limited demand on resources of time and money. Subsequent findings and interpretations can provide a basis for formulating action-oriented strategies and implementing intervention policies. RA is generally described as being primarily a qualitative methodology. Qualitative methods generate non numerical data; this means that they focus on ‘how’ and ‘why’ questions thus gathering mainly verbal data rather than measurements (McNall & Foster-Fishman, 2007).

3.2. Population, Sample and Sampling Procedure

Overall, the assessment was set out to reach out to key stakeholders on socio-economic issues relating to women and girls drawn from the sampled wards from the two districts of Tabora Municipal and Urambo. The study targeted the following wards: (i) Ng’ambo; (ii) Tumbi; (iii) Kalunde; (iv) Cheyo; (v) Imalamakoye; (vi) Urambo; (vii) Uyumbu; (viii) Nsenda; and (ix) Vumilia.

The respondents were identified through purposive, cluster and snow-ball sampling techniques. Purposive sampling was ideal for this study because it allowed the researcher to select respondents based on their

relevance and knowledge on women and girls particularly in view of the current realities brought about by the COVID-19 pandemic, and the snowball sampling was based on referrals from the respondents. Cluster sampling was used to group respondents based on age, type of economic activity and so on. In total, 120 individuals were sampled.

These are outlined in the Tab. 1:

S/N	Stakeholders/Respondents	Category	Number of respondents
1	Central Government	PMO-LEYD	1
2	Regional Government	RAS	1
3	Local Government	DAS, DEDs, DAICOs, DTOs, DCDOs,DCOs,DEs, DEOs	20
4	Labour Organizations	TUCTA, ATE	2
5	NGOs, INGOs & Development partners	ILO, TDFT, Winrock, JIDA	10
6	Civil society	TTB	3
7	Community Based Organizations (CBOs)	Tunaweza, tumaini,	20
8	Civic Leaders & Influential People	Church Leaders & WEOs	4
9	Women and girls	Women and girls	50
10	Professionals in contact with children particularly girls	Head Teachers	8
11	Other Government Institutions	Gender and Children Desk/Tanzania Police Force	1
TOTAL			120

Tab. 1: Categories of respondents for this RAS

3.3. Data Collection Methods

Collecting data for this Rapid Assessment was mainly structured around two approaches: primary data collection through Key Informant Interviews (semi-structured), informal interviews and Focus Group Discussions (FGDs) as well as a secondary data desk review. The desk review encompassed a review of all relevant documents such as socio-economic profile of the Tabora region and its districts, whereas the COVID-19 pandemic and additional information were obtained through online resources.

Primary data was mainly collected from information-richest members of the desired population, who were selected purposely in order to generate reliable data. Face-to-face interviews and Focus Group Discussions were administered between 13-July-2020 and 24-July-2020 in the Tabora Municipal and Urambo Districts. The interviews lasted between one and two hours depending on the data and information of each interviewee. Interviews were also accompanied by transect walks in selected areas to

witness first-hand issues relating to the study. All interviews were conducted in *swahili* and they were spontaneously recorded with the translation and transcription done later. This was done in order to ensure that no important information was lost in the course of the discussions.

3.4. Data Analysis

Qualitative data analysis was mainly done through thematic analysis whereby the researcher mainstreamed all different themes and sub-themes that emerged and put the analysis in the chronological order. Triangulation was used to compare information gathered from different sources such as literature, interviews, Focus Group Discussions (FGDs), documents and observations. Quantitative data was analysed by using descriptive statistics such as tables.

Apart from that, similar to Mckibbin and Fernando (2020), this study resorted to a simulation analysis using a scenario approach to assess the possible poverty and income level impact of the COVID-19 outbreak for women in Tanzania. The analysis used the most recent Household Budget Survey (HBS) for 2011/2012 and 2017/2018 prepared by the National Bureau of Statistics (NBS). These surveys ask about household incomes, spending on final consumption (goods and services), socio-economic and geographical characteristics of households, characteristics of household members, participation in the labour market, housing characteristics and social inclusion. Data are segregated based on gender, age and levels of income. The simulations assumed two scenarios: best-case scenario and worst-case scenario using the following assumptions: (i) that the pandemic lasts for one year; (ii) income losses in scenario 2 double those in scenario 1; (iii) private transfers will be reduced by 40 % during a quarter of the year. The impacts are simulated by subtracting the loss in earnings and household remittances from per capita household income and comparing these scenarios with the baseline.

3.5. Profile of the Study Area

The Tabora region is the seventh most populous region in Tanzania and located in the mid-Western part of Mainland Tanzania on the Central African Plateau between latitudes 4° and 7° South of Equator and longitude 31°–34° East of Greenwich. It is in the country's central zone with 6 districts namely Nzega, Igunga, Urambo, Sikonge, Uyui and Tabora

Municipal. In Tabora, about 76 % of the inhabitants are farmers, and thus agriculture is the largest single sector in the economy directory producing about 80 % of the Tabora region's wealth of goods and services. Tobacco is the leading cash crop mainly grown for export markets particularly in the Tabora Municipal and Urambo Districts. The principal food crops are maize, sorghum, cassava, sweet potatoes and vegetables.

4. Findings

4.1. Conceptual Framework

While commendable efforts have been taken by the government to contain the spread of COVID-19, the economic impact of the movement restrictions, social distancing, closure of schools and halting of economic activities have both short- and long-term implications for women and girls in Tanzania. There are two main channels through which women and girls have been affected by this crisis: the immediate socio-economic impacts of measures to stop the transmission of the virus and decrease the pandemic; and the potential longer-term effects of delayed implementation of the Sustainable Development Goals (SDGs).

This study adapts the conceptual framework from the Guideline on Assessing Socio-Economic Impact of the COVID-19 crisis by the United Nations Development Programme (UNDP) to assess the socio-economic impact of the COVID-19 pandemic in the Tabora Municipal and Urambo districts. This guideline is tailor-made to fit the objectives of this study.

The guideline explains that the socio-economic impact of the COVID-19 epidemic operates through two distinct channels: (i) Direct and Indirect Effects of the sickness; and (ii) the Aversion Behaviour Effects. This relationship is depicted in Fig. 1 below: Direct effects of the sickness, which results from when an income-earner in the household falls ill due to COVID-19. Indirect effects of the COVID-19 pandemic are caused by aversion behaviour resulting from the fear of catching the virus, which in turn leads to a fear of association with others and reduces labour force participation, closes places of employment, causes delays in food security programs' delivery and in cash transfers, disrupts transportation and motivates private decision-makers to disrupt trade, travel and commerce by cancelling scheduled commercial flights and reducing shipping and cargo services (UNDP-Uganda, 2020).

According to Carlsson-Szlezak, Reeves and Swartz (2020), prolonged lengths of the pandemic and the social distancing measures might reduce consumers' confidence by keeping the consumers at home, wary of discretionary spending and pessimistic about the long-term economic prospects. Household wealth will likely fall, savings will increase, and consumption spending will decrease further. Consequently, supply-side factors will be disrupted because as COVID-19 keeps production halted, it will negatively impact supply chains, labour demand and employment, leading to prolonged periods of lay-offs and rising unemployment. Ultimately, the intensity of the shock is determined by the underlying epidemiological properties of COVID-19, consumers and firms' behaviour in the face of adversity, and public policy responses (Gourinchas, 2020).

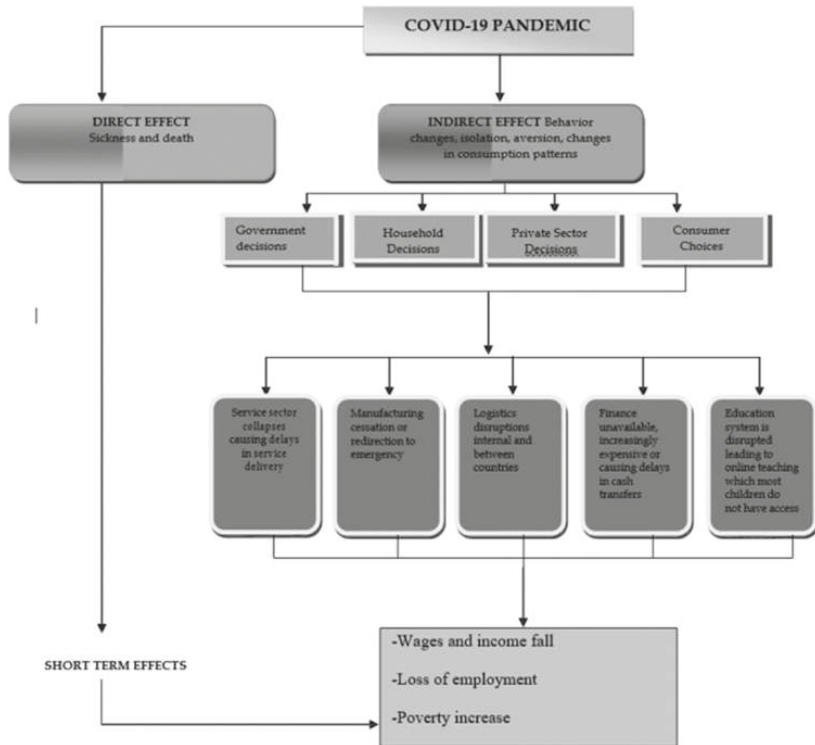


Fig. 1: Socio-economic impact assessment pathway of the COVID-19 pandemic

Source: Researcher, 2020

4.2. Socio-economic Impact of the COVID-19 Pandemic to Women and Girls

4.2.1. Economic Impact

In Tanzania's current state, much of the shock stemmed from international trade as global manufacturing came to a standstill and governments closed off their borders in an attempt to reduce further spread of the virus. In addition to the direct health impacts, there are many ways the COVID-19 crisis affected personal and household welfare of women and girls in the Tabora Municipal and Urambo Districts.

Taken on a sectoral level, the main immediate victims from the shocks of COVID-19 pandemic were women employed in the informal sector and its value chain. To earn a living, these women depend on public space and social interactions which were restricted to contain the spread of the pandemic. Many informal activities involving women in the Tabora Municipal Council include food vending or *mama lishie*, stone crushing, poultry, tailoring, and local brew making while in the Urambo District women are usually involved in poultry, local brew making and fish retailing.

The informal sector in the Tabora Municipal Council being an urban area provides 85 % of employment. Out of that, 60 % are women implying that the impact of the economic disruption on the informal sector has highly affected women in the district. In the Urambo District, women working in the informal sector were highly affected as the informal activities in this district account for only 20 % of the total employment.

Internal and external movement restrictions decelerated economic activities in the Tabora Municipal and Urambo Districts. This forced households to spend primarily on essential goods because of low expectations of future income. Suppliers experienced low consumer demand and were forced to cut back on productions and service provision. Given the operating losses arising from this, some entities ceased operations altogether. Local entrepreneurs had very little income generated (if any) within the three months. In this instance, women traders were hardly hit and ended up living in very precarious situations.

Women in the worst affected businesses in the informal economy like food vendors failed to repay their loans mainly due to the slow-down or collapse of their businesses which eventually increased non-performing loans (NPLs) beyond the central bank's mandatory target

of 5 % by December 2020. This, in turn, has led to heightened financial market turbulence and amplified the economic shock. High levels of NPLs go in parallel with high loan provisions (losses) which creates more pressures on banks' minimum capital compliance requirements including buffer thresholds (Fabeil et al., 2020). According to Boissay and Rungcharoenkitkul (2020), greater borrowing and higher debt levels among firms and households during this time make the short-term shocks more potent compared to previous pandemics.

Field investigations show that 20 % of the women in the informal sector had not been paid wages by their employers during the first three months of the pandemic and that 10 % had less than half of their daily wages to live on. Many women have no social insurance and were not eligible for unemployment benefits when they lost their jobs. Moreover, the government response measures that helped formal sector firms to retain jobs did not directly reach households working in the informal sector in the Tabora Municipal and Urambo Districts. Apart from that, widespread closures that took place across the different entities within the informal sector resulted in a huge increase in unemployment rate particularly in Tabora Municipal. For example, it is estimated that 40 % of the women food vendors (popularly known as "*mama lische*") businesses in Tabora Municipal Council closed temporarily and that 5 % of them were not able to recover even afterwards.

Apart from the informal economy, the resilience of the agricultural sector was put at risk by the COVID-19 outbreaks. Agriculture also involves a great part of women's economic activity in Tanzania. Eighty-one percent of women compared to 73 % of men, are engaged in agricultural activity. In rural areas, that number rises to 98 % for women (Mmasa, 2015). Moreover, in Tanzania, the share of the adult population working in agriculture is higher than regional averages, especially for women whereby 81 % of female population works in agriculture in Tanzania, compared to 55 % in the rest of Sub-Saharan Africa (Mmasa, 2015). In the Urambo District, more than 90 % of women are involved in agricultural activity whereas in the Tabora Municipal Council, only 60 % of women are in farming activities.

A global crash in demand from hotels and restaurants has seen prices of agricultural commodities drop by 20 % (Julius, Nuugulu, and Julius, 2020). The restrictions of movement, transport and market operations negatively impacted women who rely on market sales and negatively impacted female households that did not have harvest in stock to

survive on. Moreover, as a result of the COVID-19 pandemic, market prices for business crops such as cotton and tobacco went down by 30 % on average in comparison to the previous season in both districts. For example, a kg of cotton has dropped by 27 % from Tshs. 1,100/Usd 0.55 in 2019 to Tshs. 800/Usd 0.4 in 2020. This has further led to financial incapacitation of women in the agriculture value chain. The COVID-19 pandemic caused a delay of crop markets. For example, market for business crops usually start in May of every year but for this year, tobacco market started a month later and by the time of field visits, the cotton market had not yet been officially launched due to lockdown measures taken by many countries like India, Vietnam, China and Thailand who are potential buyers. Hence, women involved in cotton production were stuck with around 40,000 tons of cotton particularly in the Urambo District.

Furthermore, a delay in crop markets has disrupted loan payment schedules of women who were expecting to use the sale proceedings to pay for the input costs and school fees for their children and other basic needs. Generally, among other things, these issues are expected to reduce local governments' revenue from crop cess by around 7 %.

Another sector that has been seriously affected, especially in the Tabora Municipal Council, is the wholesale and retail business particularly traders who depend on imported goods such as electrical appliances, clothes and automobiles. The wholesale and retail business were set to continue on a growth path in 2020.

Since the outbreak of the COVID-19 virus, the sector has been adversely affected through a number of global, regional, and domestic channels. The sector has been and still is continually rampaged by shocks caused by the outbreak. The closure of borders and a huge decrease in global manufacturing have led to a limited supply of imports. Sixty (60) percent of all imports trade in Tabora Municipal comes from Asia, particularly China, which has taken restriction measures due to the COVID-19 crisis. Eighty percent of respondent members in retailing businesses were forced to put their businesses on halt since most business products are imported from China.

According to UNDP-Tanzania (2020), 68 % of all imports trade in Tanzania in 2018 came from Asian countries (USD 5.82 billion), 15 % from Europe (USD 1.32 billion), 12 % from Africa (USD 995 million), 3.7 % from the Americas (USD 312 million) and 0.78 % from Oceania

countries (USD 66.6 million). Currently, 20 % of the countries that Tanzania imports from have some form of restriction/lockdowns enacted. These countries alone constitute about 65 % of all import value within the year 2018 (UNDP-Tanzania, 2020). Eighty percent of the respondent members in retailing businesses - of which 20 % were women- were forced to put their businesses on halt since most of their business products were imported from China;

Education is one of the biggest casualties in the fight against COVID-19 in Tanzania. The impact of the pandemic in the education sector was felt more by households working in private schools as these schools could not afford to pay monthly salaries to their employees during school closures. On the contrary, similar to Hallgarten (2020), all teachers in the government sector were paid their salaries during the school closures and they confessed in interviews that the COVID-19 pandemic did not have any economic impact on them. The Tabora Municipal and Urambo districts have a total of 17 private schools employing around 150 teachers; out of which 67 % are females. Eighty (80) percent of these private schools are found in the Tabora Municipal Council. In addition to that, economic activities along the value chain of the education sector were equally affected. These include food vending, stationeries, accommodations, restaurants, *boda-boda*, *dala-dala* and so on.

The impact of long-term school closure is yet to be seen in these districts. However, a study by the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2020) concludes that the immediate and long term consequences of school closure will inevitably further exacerbate inequalities and disparities in the education sector in Africa. Similar conclusion was made by Darvas (2015) who analysed the impact of Ebola in the education sector in Liberia. Nevertheless, Wren-Lewis (2020) argues that this impact will be short-lived as its cause is known and defined.

4.2.2 Social Impact

Empirical evidence such as Bandiera et al. (2018) and Menéndez et al. (2015) show that disease outbreaks affect women and men differently, and pandemics worsen existing inequalities for women and girls. The Tabora Municipal and Urambo Districts were not an exception to this fact. Enforced isolation and social distancing to prevent the spread of COVID-19 increased the exposure of women and adolescent girls

to gender-based violence (GBV) and domestic violence while being cut off from normal support services. However, most of the identified cases of violence and abuse during the study were mainly sexual rather than physical. And the greater threat of sexual violence is that it is not always immediately discernible. Restrictions on the movement of police and security forces created a rule of law vacuum in remote communities and increased the prevalence of sexual and gender-based violence.

Many girls in Tanzania face risks of early marriage and teenage pregnancies. Every year, 31 % of girls are married before their 18th birthday, and about 28 % of girls give birth before the age of 18 years (Mbelwa and Isangula, 2012). Tabora has the second highest rate of early marriage and teenage pregnancies in Tanzania (United Nations Children's Fund (UNICEF, 2017).

Generally, adolescent pregnancy rates have increased drastically as a result of school-closures and partial lockdown. In the Urambo District, there have been 30 pregnancy cases in 72 primary schools reported during the study, pregnancy tests were still in progress and more pregnant girls were discovered. In the aftermath of the COVID-19 pandemic, the increase in teenage pregnancies is more pronounced in vulnerable communities in the Urambo district particularly in the following wards: (i) Isongwa, (ii) Ugala and (iii) Izenga. The local governments have tried several times to lodge police cases against the men/boys who had impregnated the girls but did not get enough cooperation from the families. In the Tabora Municipality, 6 cases of pregnancy were immediately reported when girls went back to school on 29- June 2020, whereby teenage pregnancies were far more frequent in Ng'ambo ward. To make matters worse, the shift to online discourse also narrowed the space for women's civil society organizations to operate and undertake urgent advocacy and service delivery in support of women's rights.

This provides suggestive evidence that the magnitude was substantial. In highly affected areas, the likelihood of early pregnancy increased by ten percentage points relative to areas that were less affected. This is a doubling compared to the baseline. How can this be explained? Moreover, during the school closure resulting from the COVID-19 crisis, many girls spent months engaged in street vending, and cooking for tobacco family members working in farms. This made them extremely vulnerable

to sexual gestures and violence. Apart from that, findings of this study reveal that girls living in rural areas have been more affected by early pregnancies than girls living in urban areas. This is mainly due to the fact that many girls in rural areas are forced to walk long distances in the bushes to fetch water, milling machines etc.

This situation is similar in other districts in Tanzania. For example, in Misungwi District in Mwanza, 84 girls became pregnant during the three months holiday caused by the COVID-19 pandemic. Similarly, 101 children became pregnant in the Shinyanga region as result of school closures, and some made abortion which further endangered their lives.

In addition, the link between GBV and HIV/AIDS⁴, as well as unplanned pregnancies, has escalated fears that this crisis will result in increased cases of new STIs especially HIV. Although there have been no evidence of tests made so far in both districts which makes it difficult to estimate its impact on a short-term basis.

Moreover, girls, were exploited in child labour particularly in tobacco plantations as a result of school closure due to the COVID-19 pandemic. Tabora is the second of the two largest tobacco growing regions in the country with an overwhelming proportion of labour force in tobacco farms consisting of children. This is because tobacco is a very labour-intensive crop requiring extra labour which forces families/farmers to engage children. Children of both sexes are involved in stringing, reaping, weeding, ridging, grading, watering nurseries, transplanting, applying fertilizers and harvesting. This exposes them to multiple hazards with short- and long-term consequences such as exposure to nicotine which may result in Green Tobacco Sickness, a type of poisoning specific to workers in this sector.

In March 2020, when schools closed, it was the harvest season. Children were therefore mostly involved in activities such as the construction of sheds and barns, cutting of trees for firewood, packaging and spraying. Specifically, male children aged 15 years to 17 years were involved in more demanding tasks such as the construction of sheds and

⁴ The links between GBV and HIV/AIDS are becoming increasingly apparent based on the findings of various studies such as (Li et al., 2014; UNAIDS, 2018; WHO, 2016; USAID, 2016). Findings show increased risk of HIV/AIDS among victims of gender based violence.

barns, carrying tobacco leaves to the barns, cutting of trees for firewood, grading cured tobacco leaves and packaging while younger boys and female children were basically involved in picking mature leaves, spraying, sorting tobacco leaves and bamboo weaving.

Apart from agricultural activity, based on field response, during the COVID-19 pandemic period, 15 % of young girls aged between 7 years and 17 years were exploited in restaurants in both districts. The main tasks performed included cleaning the workplaces and utensils, preparing and cooking food; collection of water or firewood; and serving customers. The working conditions these girls, especially those employed in restaurants and domestic work, involved toiling for long hours a day and for seven days a week without resting with extremely low payments. Girls aged 12 years and more were paid around Tshs. 10,000/Usd 4 per week while girls aged less than 12 years were rewarded with only a plate of food for their hard daily labour.

Another popular child labour activity involving girls during school closures particularly in the Tabora Municipal district was commercial sex. Female children aged 12 years to 17 years confessed of being forced into prostitution by their mothers or grandmothers in order to obtain money for their basic needs such as food and clothes. This exposes them to sexual violence, early pregnancies, and the risk of HIV infection. The ward which is notorious for encouraging female children to engage in commercial sex is the Ng'ambo ward. The following quote from a focus group discussion underlines the point:

'When I ask *mama/bibi* to give me money to buy clothes, shoes, handbags, and so on, she tells me that I am now a grown up and I must use my sexiness to earn money coz *mama/bibi* has no money to give me!' Apart from economic activities, girls were also engaged in performing house chores during the COVID-19 pandemic period. This involved performing tasks such as house and yard cleaning, washing, cooking, ironing, water and firewood fetching as well as taking care of younger children and elderly family members. Moreover, house chores also involved going to the market to shop for home groceries such as food-stuffs, brooms, and so on. House chores took 50 % of the female children's time. Tab. 2 below provides the percentage distribution of female children by type of work they were engaged in at Tabora Municipal and Urambo Districts.

Tab. 2: Female children by type of work in Tabora and Urambo Districts

s/n Type of Work	Percentage	
	Tabora Municipal	Urambo District
1. Agriculture – tobacco farming	19 %	26 %
2. Agriculture – other crops	20 %	21 %
3. Stone crushing	10 %	na
4. Street vending	11 %	5 %
5. House chores	25 %	30 %
6. Restaurant work/Mama Lishe	8 %	3 %
7. Commercial sex	4 %	2 %
8. Groundnuts processing plants	1 %	9 %
9. Others (e.g. alcohol making, housemaids, shop keeping)	2 %	4 %
TOTAL	100.0	100.0

Source: Field data, 2020

Lastly, the closure of schools and daycare centers had massively increased childcare needs, which had a particularly large impact on working mothers. Many children in Tabora are raised by single mothers or grandmothers. This puts more parental pressure on these women during the closure of schools. Apart from that, most of the funds which were directed to women and young girls were cut down or redirected in the fight against the COVID-19 crisis. This includes the NGO CAMFED⁵ which deals with advocacy and sensitization of female education in the Tabora region.

Generally, in terms of social effects, the closure of schools and entertainment venues negatively impacted the quality of life in general due to depression, stress and other mental illnesses. Though this was not easy to measure or quantify, but during the interviews, experts from the DMO (District Medical Officer) department stressed that social distancing was highly likely to increase inequality, exclusion, discrimination, and unemployment in the medium and long term.

He added: ‘These restrictive measures and self-isolation due to fear of contracting the COVID-19 virus has had a negative impact on social

⁵ African women leading community action for vulnerable girls (camfed.org)

development in the Tabora municipal and Urambo districts because large parts of Nyamwezi societies depend on person-to-person interactions’.

4.2.3 Future Implications: Simulations

Recent poverty reduction and welfare improvements are being interrupted as the COVID-19 crisis forces significant socio-economic havoc. While most of men’s economic activities returned to pre-crisis levels shortly after preventive measures subsided, the impact on women’s economic security and livelihood has lasted much longer. Based on the National Bureau of Statistics (NBS), the Incidence of Poverty for females had declined from 34.4 % in 2012 to 27.4 % in 2017/2018. Likewise, food poverty had declined from 11.8 % in 2007 to 7.9 % in 2017/2018. Currently, Gini Coefficient stands at 0.38. However, the crisis will likely interrupt and partly reverse recent progress.

Based on the simulation made, the COVID-19 crisis could increase the poverty rate by 1–2 percentage points for women in Tanzania. The average household income for female-headed households is simulated to fall by 12–14 percent across the country because more of their total income comes from the sectors most affected. To make matters worse, more than 95 % of the women and girls at risk of poverty because of the COVID-19 crisis do not currently have any social protection support.

The pandemic has also deferred public efforts to combat early marriage and soaring poverty is anticipated to increase rates of child marriage in vulnerable communities. Nonetheless, it is still too early to estimate the expected number of early child marriages and early pregnancies caused by the pandemic, since tests were still carried out during the Rapid Assessment Study in July 2020.

Tab. 3: Simulation of the effect of COVID-19 pandemic on poverty and income indices

Incidence of Poverty			Food Poverty			Average Income		
Baseline	Scenario	Scenario	Baseline	Scenario	Scenario	Baseline	Scenario	Scenario
1	2		1	2		1	2	
27.4	28.8	30.2	7.9	9	9.9	160,000	140,000	137,600
						TSH/80	TSH/70	TSH/68.8
						USD	USD	USD

Source: Researcher, 2020

4.2.4 Interventions, Policy Response and Recommendations

The COVID-19 pandemic unleashed a global health emergency and an unprecedented socio-economic crisis of historic magnitude. To combat the disease, the government of Tanzania imposed restrictions on certain types of activities from closure of schools to requiring institutions to take proactive measures to avoid infection. Individuals were required to reduce trips to the market, travel, leisure, and other social activities. Land and water borders remained open with no formal restrictions on internal movement between regions, however. Some of these restrictions began to be lifted in May 2020, as the authorities considered that the situation was under control. International passenger flights resumed in late May 2020, and the authorities reopened educational institutions in early June the same year.

These measures negatively impacted social and economic activities which caused a significant rise in poverty for vulnerable groups such as women and girls. This triggered an immediate and necessary government and key stakeholders response to mitigate the negative socio-economic impact of the pandemic. A range of policy responses and strategies were immediately designed to make sure that socio-economic programs continue to function amidst the disease outbreak.

The government adopted a combination of monetary and fiscal policy measures, while continuing to implement ongoing reform measures to improve the country's business environment. The Bank of Tanzania (BoT) introduced several policy measures to safeguard the stability of the financial sector including:

- (i) reducing the discount rate from 7 % to 5 % and decreased collateral requirements on government securities;
- (ii) lowering the statutory minimum reserve requirement from 7 % to 6 % to increase liquidity.
- (iii) increase in mobile money daily transaction limits from TZS 3 million to 5 million and daily balance from 5 million to 10 million to encourage digital payments; and
- (iv) a loan repayment moratorium for borrowers experiencing financial difficulties.

On the fiscal policy side, as at mid-June 2020, the government spent USD 8.4 million specifically to deal with the effects of the COVID-19 pandemic. Moreover, in line with the implementation of the Arrears

Management Strategy (AMS), the government expedited the payment of verified expenditure arrears with priority given to the affected SMEs, paying USD 321 million as at April 2020. To promote local production and strengthen competitiveness of domestically manufactured items, the government granted a duty remission for one year on raw materials sourced by domestic manufacturers of items used in the diagnosis, prevention, treatment and management of the COVID-19 pandemic, including masks, sanitizers, ventilators and personal protective equipment (PPE).

The deep social and economic impact of the crisis on women and girls, their well-being, livelihoods and health illustrates how urgent it is to put women at the core of recovery and long-term development efforts. According to Agarwal and Sharma (2020), to ensure that the gender lens is not lost as recovery efforts are implemented, all countries should design financial recovery plans and economic stimulus packages that empower, protect, employ and educate more women and girls. Recovery measures/policies should aim at building more equal inclusive and sustainable economies and societies. This includes gender responsive economic and social policies and placing women economic lives at the heart of the pandemic and recovery plans.

Response measures put in place so far are weakened because they have failed to factor in the ways in which inequalities have made women more vulnerable to the impact of the crisis. It is important for these interventions to incorporate sex disaggregated data, a gender lens and specific targeting of women. This is emphasized by the UN Women's Chief Statistician, Papa Seck. She urges:

‘Despite the clear gendered implications of crises, response and recovery efforts tend to ignore the needs of women and girls until it’s too late. We need to do better. But most countries are either not collecting or not making available data broken down by sex, age and other characteristics – such as class, race, location, disability and migrant status. These acute data gaps make it extremely difficult to predict the pandemic’s full impact in countries and communities. They also raise the concern that COVID-19 policy response will ignore the priorities of the most vulnerable women and girls.’

Putting women at the centre of economies will fundamentally drive better and more sustainable development outcomes for all, support a more rapid recovery and place us back on the footing to achieve sustainable development goals. To promote gender equality in the COVID-19

recovery, the government must partner with the private sector and civil society to accomplish this. Countries should also assess how vulnerable segments of society are affected by access, or lack thereof, to recovery and stimulus packages, and should take into consideration possible policy effects on women and on vulnerable populations.

These are also important considerations in the context of aligning public and private finance with the Sustainable Development Goals (SDGs). In addition to that, the policy response should address the following measures that are tailor-made to mitigate the socio-economic impact of the pandemic to women and girls:

- i. Reducing gender-based violence, including domestic violence by: (i) prevention and awareness- raising on GBV; (ii) support for rapid assessments; (iii) access to essential services, including helplines and shelters; and (iv) support to women's groups.
- ii. Designing economic stimulus packages to serve women and girls to support: (i) assessments and policy advocacy to drive accurate policy responses; (ii) women-owned enterprises; (iii) private sector engagement; and (iv) gender-responsive procurement.
- iii. Women and girls who have been socially and economically affected by COVID-19 should be involved in decision-making by awareness-raising campaigns and social mobilization.
- iv. Include Gender Based violence (GBV) prevention messages in formal and non-formal education activities and programs in primary and in secondary schools.
- v. Implement a comprehensive outreach effort to ensure that young girls who have dropped out of school during the three months of school closures are re-enrolled back to school.
- vi. Provide opportunities for alternative learning for those young girls who cannot go back to school because of pregnancies, child labour and so on.
- vii. Continue to educate the personnel or those who are involved with women and girls regarding dangers that threaten these women, such as infections, sexual, physical, and emotional abuse, as well as potential psychiatric disorders.
- viii. Educating children and adolescents on how to respond in case they are mistreated and how to improve their social responsibility.
- ix. Young girls who became pregnant during this COVID-19 pandemic period should be traced and helped psychologically,

emotionally and financially and later on they should be given soft skills to help them earn their living.

Addressing these issues will not only help unlock the full economic potential of women but would help improve the environment for all businesses in Tanzania.

5. Conclusion

From the results and discussions above, it is obvious that the COVID-19 pandemic has resulted in a prolonged dip in women's income and labour force participation in Tanzania, with compounded impacts for women already living in poverty. Some women had managed to escape extreme poverty- thanks to the recent economic growth – but are likely to fall back into this vulnerable situation in the current context. Women working in the informal sector and girls living in rural areas are more directly exposed to an increase in poverty. Moreover, the COVID-19 pandemic has necessitated the need for attention to women and girls more generally, to prevent long-lasting adverse outcomes.

All challenges discussed above will mostly run into the next medium-term period, thus, two significant issues are worth pointing at as we anticipate the future. First, although few interventions have already been made, more focus should be given towards the next medium-term period in order to help these women and young girls to get back to their feet socially and economically. Second, the need to understand the socio-economic impacts of the COVID-19 pandemic particularly on women and girls will continue to be important for evidence-based policy making.

Generally, economic stressors on this marginalized group will need mitigation and quick changes in policy whereby the government and development partners must join forces to achieve more significant results. The situation therefore calls for advocacy and urgent interventions to reduce the incidence of poverty. The situation also requires the establishment of effective adaptive mechanisms that will foster the restoration of life, social and economic activities for and within this vulnerable group. Particularly, appropriate, and relevant policies to reduce vulnerability and strengthen capacities to tackle crises are crucial to enable girls and women to better weather and recover from the shocks of the pandemic.

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Chapter 3

Tanzania's Livestock Sector: Resilience and Potentials

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1. Introduction

Tanzania accounts for about 1.4 % of the global cattle population and 11 % of African cattle population (FAO, 2014). The country has about 33.4 million cattle, 21.29 million goats and 5.65 million sheep. Other livestock include 2.14 million pigs, 38.77 million local chickens and 44.51 million improved chickens. The livestock sector employs about 50 % of its population, which is equivalent to 4.6 million households whose income is directly dependent from this area. The sector contribution to GDP is about 6.7 % and is growing 5 % annually. This growth is faster and double compared to other sectors which clearly indicates that the threat imposed on the future of this sector cannot be ignored. Among the current challenges that limit the future of the sector is the Covid-19 pandemic – in that regard, it is important to understand the future of the sector after Covid-19. This present study intends to answer the research question: Will the sector be resilient and what are the coping strategies?

With the intention of tapping into the potential of the livestock sector, the Tanzanian government has introduced a number of initiatives seeking to both attract and protect local investors in the sector. For example, the Tanzanian government introduced a levy of Tsh 2000 per kilogram for imported milk in its 2018 regulation. The same regulation introduced a levy for imported meat of Tsh 5000 per kilogram. This has led to the emergence of investors in the field of milk, meat and new technology, such as ultra-heat technology (UHT) to be introduced in the country. This is due to the levy limiting the amounts of imported milk and meat which were once threatening the sector's growth. However, the current pandemic is threatening the growth of livestock which is at a nascent

stage. In that aspect, it is very important to understand the resilience of the sector.

Generally, the effects of the pandemic on the livestock sector were felt in two main areas: the domestic and the international markets. For the domestic market, the livestock business was affected by the closing down of tourist hotels in March 2020, and by the restrictions on public ceremonies for about 90 days. This led to reduced sales of animal products such as meat on the domestic market. As for the impacts on the international market they can be seen with the limitations of incoming and outgoing flights which naturally brought hiccups on the supply of inputs such as vaccines, animal mineral stones, animal feed additives, hatching eggs and parent stocks. Furthermore, the closing down of international business has limited the exportations of meat and day old chicks (DOC) from Tanzania to other markets, such as Comoro for day old chicks and Middle East for meat.

Covid-19 has also had an impact on the exportation of meat, hides and skins to European and Asian markets which have recently been positively increasing. The impact can be seen on meat processing factories which work under the economic processing zone authority (EPZA) scheme. However, Tanzania's livestock sector will not experience that shock for a long time before it manages to recover as the sector depends on the domestic market which has been protected with levies and restricted importations of meat and its derivatives.

The objective of this chapter is to provide a narrative of the indirect effects of Covid-19 on the livestock sector and to show how the sector will recover after the shock of the pandemic. The focus is on the pandemic's effects on livestock trade and how the country's policy will enable the sector to bounce back. Some of the highlighted livestock products are beef, chicken and alive animals. The study paid further attention to the country's livestock-related industries such as animal feeds and poultry.

Indeed – using a chronological process tracing methodology – the chapter is starting by a narrative of the emergence of Covid-19, in March 2020 in Tanzania, and is reminding the measures taken to face the pandemic relative to transports, gatherings, borders policy and so on. Based on this framework the main sectors related to livestock in Tanzania are approached – namely and in order of appearance: animal feed ingredients, the meat business, the milk business, live animal trade, chicken and chicken meat and the leather value chain. Each sector is economically

analyzed by trade, volumes, prices and value addition but also by markets (domestic and/or foreign) depending on the significance. This methodology allows to draw conclusions from indicators' evolution before and during the pandemic for each sector and depending on the type of market of interest. The chapter is ending on conclusive remarks and recommendations on future policies to face the recovery from the pandemic and improve the performances of the livestock sector in Tanzania.

2. Emergence of Covid-19 and Taken Measures

The Covid-19 pandemic was confirmed to have spread to Africa on 14 February, 2020. The first confirmed case was in Egypt, and the first confirmed case in sub-Saharan Africa was in Nigeria. Most of the identified cases had actually arrived from Europe and the United States rather than directly from China where the virus originated. As for Tanzania's first case, it was confirmed and reported in Arusha on 16 March, 2020.

Following the first confirmed case, the Prime Minister Honorable Kassim Majaliwa announced a series of measures the next day, to curb the spread of the pandemic. As a starting point, these were standard measures which sought to encourage regular handwashing, social distancing, the suspension of public gatherings and events, the closing down of learning institutions, the suspension of all kinds of sports and games leagues and the prohibition of unnecessary citizen travels and visits among families and communities.

Public transport operators were directed to provide hand sanitizers and to carry fewer passengers (Level seat). Other measures included the provision of handwashing facilities in public places such as livestock auction markets. The Tanzanian government then directed all persons entering the country to be quarantined for about 14 days at government-designated stations before finally suspending international passenger flights on April 12, 2020. In Dar es Salaam, for instance, in order to strengthen social distancing guidelines, all bars and restaurants were obliged to only keep their takeaway service. All of these measures had impacts on the livestock sector as a good number of service providers were users of livestock products like meat, eggs and milk.

Livestock provides livelihood for millions of Tanzanian citizens across the country. In addition to livestock producers, the livestock economy creates jobs for traders, transporters, animal health workers, food

producers and retail outlets such as butcheries and street food vendors. In Tanzania, livestock trade drives the economy and generates revenues that are further invested into the trade of staple foods and other sectors. Based on that, it is important to examine the impact of these measures and the future of the sector.

3. The Livestock Sector during Covid-19

Since late March 2020, livestock auction markets have largely stalled due to Covid-19's prevention measures implemented by the government across the country – movement restrictions, border closures, and, in some regions, the closure of livestock primary and secondary-market places. These measures led to an increase in the costs of supplying livestock to domestic and international markets. Although the government restrictions challenged livestock markets throughout the country, the decreasing demand for eggs, milk, meat and meat products in urban consumer markets had the greatest effect on livestock trade.

For example, one of the consumers of meat and other related livestock products are bars and restaurants. Therefore, before the lifting of measures related to the closing of bars and restaurants aiming to reduce the spread of the pandemic, butchers faced the collapse of their business. This added additional harm to the sector that depends much on the domestic market alone, the market has some limitations that caused even more loss for those concerned.

Covid-19 came at a time when the livestock sector was on the revival plan with new initiatives introduced by the government's fifth phase seeking to unlock the sector's potential to contribute to the country's economy. Some of these initiatives were setting a good business environment by protecting domestic firms in the meat business, enforcing laws and regulations that led to new investments in tanneries, shoemaking, and promoting the poultry and egg market. In the following sections we display the impacts of the pandemic on different animal products' trade, and shed some light on the future evolution of certain goods' business.

The curtailed movement of vehicles at night and long delays at border crossings has increased the delivery costs imposed on delivered items including food produce, alive animals, animal feeds, feed ingredients and veterinary drugs and chemicals. The movements' restrictions of veterinary professionals in some regions has also shortened access to inputs and

service delivery. Furthermore, restricted movements, including night curfews, have hindered farmers' access to input and output markets, limiting productive capacities and jeopardizing further retail.

The extent of trade control measures to slow the spread of COVID-19 varies from movement restrictions, cancellations of international flights and disruption of national and international trade routes, as well as the closure of all borders, ports and airports. In Tanzania, the majority of borders remain open to allow incoming goods. However, trade with neighboring countries was restricted. As a result, the trade of livestock that depends on Kenyan buyers was limited due to the Namanga border closure.

4. Reduced Access to Animal Feed Ingredients

Demand for animal feed and additives is currently on the rise in East Africa following a demand increase for animal protein which is driven by an increase of income, lifestyle change and urbanization. For example, it is estimated in Tanzania that the demand for chicken is growing at 11 % annually (KilimoTrust, 2017). Demand for other products such as milk and meat is also increasing. To meet this demand, the region has seen the arrival of foreign investors and the emergence of indigenous entrepreneurs in animal feed processing and chicken productions. For example, two of the global leading chicken producers, Tyson Food (an American company) and Irvine Group (a South African company), both joined their efforts and injected US\$ 36 million in the hatchery business in the Kilimanjaro region in Tanzania. They own chicken rearing farms in Bagamoyo with a production target of 2 million broilers per month (Vidal, 2018). This shows that more has to be done to make sure the supply of animal feeds and important ingredients are increasing in the country, which goes hand in hand with various changes. For example, it was estimated that there was a supply deficit of 5.3 million metric tons for animal feeds in 2013 in the country. Although the estimation is based on old statistics, it needs to be reassessed to embed the dynamics which are currently taking place. We argue that more policies are needed in terms of raw material production such as soybeans and other similar cereals and tax waivers for imported materials required as ingredients.

Animal feeds in Tanzania can be categorized into roughage and concentrate. Following an increase in demand for animal protein in urban

zones and cities that led into an increase of intensive care of small ruminants such as poultry and pigs means there likely is an increase in demand for concentrate foods (Mbwambo et al., 2016). Most of these additives, which are used by animal feed processors, are imported from the UK, Germany, India, South Africa and the Netherlands. This means that the animal feed business has also been affected with COVID-19 due to restrictions on the mobility of people and flights and other means of transport.

To understand the reliance of animal feeds after COVID-19, more focus should be placed on the availability of raw materials and animal feed additives. For the latter it seems that the availability of main animal feed ingredients will be a challenge for Tanzania in the near future as it could be affected by COVID-19. Nevertheless, for the availability of some ingredients, such as soy cake, the country depends on imports from other countries. The current demand for animal soy feed protein is estimated to be 150,000 tons and only if fish protein will be replaced by soybean protein. Yet, due to high costs, it is not likely to happen anytime soon (Wilson, 2015). Nowadays, Tanzania imports soy cases from Zambia and Malawi. Following the lockdown and border closure policies implemented in those neighbouring countries, shortages may occur for a certain period of time. However, livestock keepers have another opportunity to use other ingredients for the making of animal feeds, especially for chickens and pigs. This suggests that the demand for animal products will go hand in hand with the availability of animal feed ingredients that may limit the sector's growth.

Restrictions on the movement of goods, suspension of international flights and the fear of being infected by COVID-19 are resulting in a reduced supply of raw materials and other ingredients.

This disruption of raw material supply routes has reduced the normal capacity of feed production and further affected feed supply. For example, in Tanzania, some of the large animal feed producers were affected as shown in Tab. 1. This brought serious challenges to farmers because the fewer the number of feed millers the higher the price of feed and the poorer the quality due to a lack of competition.

Tab. 1: Effects of COVID-19 on production of animal feeds

S/ N.	Name of the animal feed industry	Region / Location	Production Capacity (tons per day)	Actual Production (Tons per day)	Production after the effects of Covid 19 (Tons / day)	Details
1.	Silverlands Tanzania Limited	Iringa	320	200	140	Feed sales to agents decreased by approximately 45 %
2.	Hill Animal Feeds	Dar es Salaam/ Pwani	30	30	30	The farm produces both feed and table eggs. Feed Production was not significantly affected but in terms of egg production it was affected by a drop in sale price of eggs. The tray decreased from being sold at Tsh.7,500 / = to Tsh. 4,800 .
3.	Tan Feed International	Morogoro	25	15	10	This industry produces feed for special orders targeting layer and broiler farmers. During COVID- 19, most farmers stopped their farming due to a drop in egg and broiler meat demand.
4.	Tanbreed Poultry Co./ Interchick	Dar es Salaam	80	34	4.3	This industry produces both day old chicks and feeds. The effects were experienced in terms of broiler feed production as well as the sales of broiler chicks decreased from 270,000 to 100,000 chicks per week.
5.	AKM Glitters Ltd	Dar es Salaam/ Pwani	120	90	50.5	This farm produces both day old chicks and feeds. The effects were experienced in terms of feed production as well as the sales of improved chicks (Kroiler) went down

Continued

Tab. 1: Continued

S/ N.	Name of the animal feed industry	Region / Location	Production Capacity (tons per day)	Actual Production (Tons per day)	Production after the effects of Covid 19 (Tons / day)	Details
6.	Marenga Millers	Moshi, Kilimanjaro	100	37	13	-
7.	Mega Investment		7.5	1.5	0.05	Currently only dog food is produced from 1.5 tons to 0.05 tons per day.
8.	Back Borne	Pwani	40	15	5	The factory was totally closed due to low production and feed sales were also very low.
9.	Shamba kilimo	Arusha	5	3.5	0.5 -1.0	Feed production per day has decreased, consumers have also declined due to the outbreak of the coronavirus.
10.	Misenani Agri Services	Mwanza	50	5	1.0	Production has decreased significantly from 5 tons to 1 ton per day. Also, the factory did undergo staff redundancy.

Following the restrictions on the flow of goods and people due to the pandemic, it is likely that Tanzanian animal feed producers will have more raw materials as the transport of sunflower seed cases and maize husks to Kenya will not prove to be a good move. For example, Kenya, which is one of the important markets for Tanzania's animal feed ingredients such as maize, maize husks and molasses, has seen its imports rise to more than 50.000 tons of soybean cake annually (Oirere, 2018). This means more food will be available for livestock keepers in the country. Chart 1 shows that there is an increase in production of cereals in the country. Also, in 2019/2020, it was estimated that the country had 2 million tons of maize. However, these trends will not be beneficial in the long run because even the manufacturers will experience a decrease in prices.

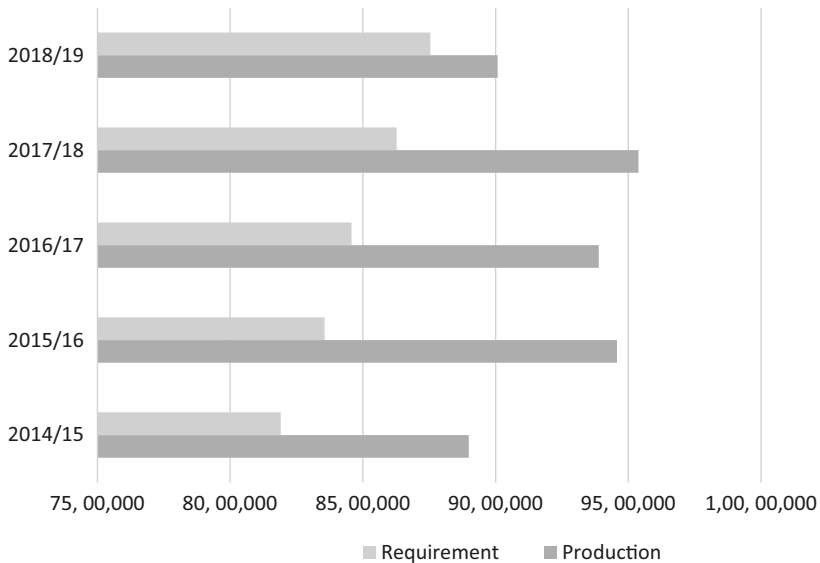


Chart 1: Tanzania Demand for Cereals

Source: Bank of Tanzania

5. The effects of COVID-19 on the Meat Business

Butchers control the meat business in the country. There has been an initiative to promote hygiene with a campaign of removing rudimentary technology such as axes and logs which are used for meat trimmings. In general, butchers who control the meat business are in a transition towards the implementation of these measures, but more is needed to improve their operations. The meat sub-sector was affected by Covid-19 too. The meat business generally depends on domestic markets. However, following the government, various initiatives for meat exportations were launched. In that regard, in order to understand the impact of Covid-19 on the meat business, a broader focus has to be placed on both foreign and domestic markets.

Following the closure of tourist hotels and the limitation of public events, such as wedding ceremonies and other public events, due to the pandemic, butchers were also affected by the current restrictions. Some of the hotels also shut down their activities throughout the country due to the national decision of limiting the gathering of more people for 30 days from 17 March in 2020 onwards. All these measures had an impact on the meat business which relies heavily on restaurants, hotels and bars for the purchase of meat and its derivatives.

Mid 2018, the Tanzanian government decided to promote the growth of the livestock sector by creating more markets for domestic players. Some of the initiatives that were introduced by the government are increased exportation fees for livestock animals such as goats, sheep and cows. This has led a number of meat value chain actors to seek opportunities and to establish staling abattoirs in the country.

In the same vein, the government introduced a levy for imported beef of Tsh 5000 per kilogram. These initiatives opened more markets for indigenous entrepreneurs who once faced difficulties in accessing domestic markets for higher-end consumers such as tourist hotels and camping sites. For example, Tab. 2 shows that from 2018 to 2020, the importation of beef declined in the country. This can be attributed to the levy of Tsh 5000 per kilogram of imported meat. However, more is expected to increase the capacity of domestic meat producers and livestock keepers and to ensure the quality of the meat products.

Tab. 2: Meat imports and exports in Tanzania

Year	Imported meat (in tons)	Exported meat (in tons)
2015	735.0	23.4
2016	512.6	439.03
2017	3700.0	1030.9
2018	1,401.96	2,608.93
2019	516.63	1,759.12
2020	243.65	692.36

Source: Ministry of Livestock and Fisheries Budget speech from 2015–2020.

These efforts made by investors who saw the potential of investing in Tanzania's meat business increased in numbers which go hand in hand with increased meat exports. The construction of a new meat processing factory made it possible for Tanzanian meat to access foreign markets like the Middle East. Some actors like Elia food, Chobo Meat processing and Tan-Choice started to all operate in Tanzania.

However, the pandemic has brought more difficulties to the country's meat business which happened to be at a turnaround stage. In other words, the pandemic has brought challenges to the meat business and a lot still could be done. For example, the Chobo Meat factory has recently ceased its operations following the closure of flight operations that ship meat from Tanzania to foreign markets (Shani, 2020). Although the business' actual value is unknown, the pandemic has been a blow to Tanzania's meat business which is still in its revival phase.

5.1. The Milk Business

Milk business in Tanzania is at an infant stage whereby it is estimated that only 10 % of 3.7 billion liters of milk produced annually reach formal processing. Simply a large amount of milk is still sold at informal market channels and processing factories do not get enough milk. As of currently, milk processors are operating below their installed capacity. For example, the country boasts to have 92 milk processing factories that include small, medium and large firms but which possess a daily processing capacity of 250,000 liters. This processing capacity is below the amount of milk that is consumed in one day. This makes the country a major importer of milk despite ranking second on the continent in terms of having a good number of livestock.

As of today, major products processed by the country's milk producers are fresh milk, mtindi (cultured milk) yoghurt and cheese. The country has just embarked on the production of UHT milk which is produced by three different firms: ASAS, Tanga Fresh and Kilimanjaro Milk. The milk business depends on the domestic market with insignificant cross border exportation trade. However, the milk processing business is dependent on the importation of other products such as packaging materials and yeast from Kenya, South Africa and Europe. This means that, in the long run, the milk business will face certain challenges following trade limitations due to the pandemic's emergence.

Following an increase in demand for milk products due to an increase in income and lifestyle changes, Tanzania has seen a surge in milk imports. For example, it is estimated that the country uses Tsh 26 billion for the importation of milk and its derivatives. This was accelerated by the fact that milk is sold on informal markets. In that regard the country will not meet its demand in the near future without working hard in integrating the milk from the informal market into the formal economy, or by finding other options (increase in capacity and opportunities).

Following the initiatives on protecting domestic livestock products, with a levy of Tshs 2000 for one kilogram of imported milk, several milk production factories increased in the country. Furthermore, investments in the production of UHT milk also took place. The introduction of the levy reduced the amount of milk imported nationally and opened the market for domestic goods. Challenges in movement and restrictions which have been set by other countries may also limit the income of milk products during the pandemic.

This will create more opportunities for milk producers. However, the challenges of the other products indirectly used in milk production-packaging, animal feed- will create issues for the milk producers too. This generally means that local producers focus on local markets which provide them with resilience for their survival. However, due to the shrinkage of other sectors which were once major consumers of milk products- such as tourism and hotel businesses – it is likely that some of the products which were once produced for those markets will decline. For example, Tanzanians are not good consumers of cheese. In other words, local producers of cheese who produce cheese during the bumper season will find it difficult given the collapse of the tourism sector. This suggests that in the long run, the milk business will also be faced with challenges to

develop the domestic market. One strategy could be to reduce their price to attract consumers in a sharp economic context.

The situation could also encourage the milk producers to search for foreign markets within the region such as in the Democratic Republic of Congo, in Zanzibar or in Burundi. To promote the longing for foreign markets, some of the fees which are charged to exported goods need to be reduced to promote the exportations of milk products (especially cheese) which are not consumed in sufficient quantities by domestic consumers. Currently, there are still high rates imposed on exported milk and milk products, knowing that there is an increase in demand. We call for the reduction of exportation fees which are currently charged to stimulate domestic milk producers to look for foreign markets.

5.2. The Live Animal Trade

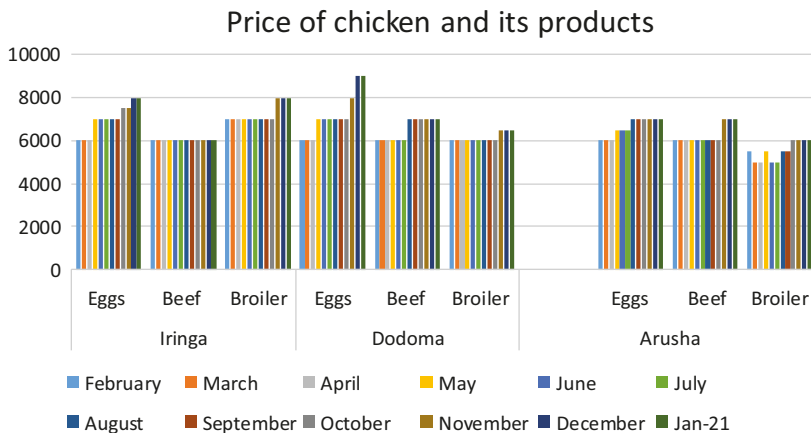
The exportation of live animals is dominated by cross-border trade between Tanzania and neighbouring countries such as Kenya, Uganda, Burundi, Zambia and Comoro. In general, cross border trade accounts for 60 % of Tanzania's export value (UNDP, 2020). Livestock has contributed to this percentage as well. That means it is very important to see whether the cross-border livestock trade runs smoothly enough for the country's economy. We understand that, based on the country's geographical nature, there are some porous areas that allow the trekking of animals illegally which leads to the country's failure to collect revenue through levies charged for the exportation of live animals.

During the Covid-19 pandemic, the Kenyan market, which is actually the major market of Tanzania's live animals that include cattle and shots (sheep and goats), was restricted. This, in turn, has led to more issues and loss among Tanzania's livestock keepers. Before Covid-19, the Namanga border used to have an estimated 3000 trucks, but due to restrictions and measures introduced to curb the pandemic, only 500 trucks are now crossing the border in a day (The East African, 2020). This is due to the decision taken by the Kenyan government on restricting the flow of goods in cross-border trade. Other country buyers of live animals from Tanzania are Uganda, Zambia and Comoro. During the pandemic, livestock traders who depended on the Kenyan market experienced some difficulty. This was later minimized thanks to the local market that absorbed locally produced meat following import limitations in the country. In general, the country's red meat business becomes less dependent on the foreign market.

5.3. The Chicken and the Chicken Meat Businesses

Tanzania’s chicken and chicken meat business depends much on the domestic market. This means that the chicken meat business was not affected in the short run by the current situation. In the aftermath of the restrictions on public events, ceremonies and tourist hotels; the sub-sector was also painfully impacted. This finds its explanation in the past evolution: following restrictions on the importation of chicken meat in the country that aimed to protect the sub-sector from avian flu (bird flu) in 2007, the domestic market became mainly depended on local supply for chicken meat (Tairo, 2018).

Chart 1 shows measures taken by the government to control the spread of Covid-19. This has led the price to plummet for several weeks: it went from Tshs 6500 per whole chicken unit in some cities to Tshs 5000–5500. This price later stabilized. In general, the poultry business was unaffected due to its nature of depending on the domestic market. Yet, other related industries such as the hatchery business and importations of parent stocks were well and truly affected. Another impact can be observed on the fact that tourism has had an impact on the business of chicken meat. This is due to the fact that the tourism industry will likely be affected in the long run. However, we understand that the sector is more resilient as its existence depends on the domestic market.



Source: Various reports from the Ministry of Livestock and Fisheries

Recently, Tanzania has started to export day old chicks and fertilized eggs to Comoro, Uganda and Kenya. These exports have increased: going from 46,496 euros in 2016 to 81,466 euros in 2018 (MLF, 2020). This is a good sign for Tanzania's poultry sector. However, more should be done to accelerate the exportations of other livestock-related products. Based on the potentials and position of the country, it is likely that exports of different animal products and the sector's contribution to the foreign exchange revenue will prove significant. However, some of the levy and taxes in the sector could be scrapped to stimulate this sector, which is currently at the infant stage.

5.4. The Impacts on the Leather Value Chain

The leather value chain has been affected by Covid-19 too, especially following the closure of the business in the countries where Tanzania exports its skins and hides. One of the major markets for Tanzanian skins and hides are Nigeria and Vietnam. This being said, after the emergence of the pandemic along with the closure of borders and other means of (slow) transportation, especially ships, the sub-sector experienced a huge blow. In general, hide and skin businesses depend much more on foreign businesses rather than on domestic markets. Tanneries in the country operate below their installed capacity. This is due to a various number of reasons – one of them being the importation of second-hand leather products (shoes and bags) and synthetic fiber products from Asia. In that regard, a fair number of tanneries closed down throughout the country as well as in East Africa.

However, there have recently been some initiatives by the Tanzanian government that intend to revive the leather industry in the country. One of the initiatives is the introduction of an 80 % export levy for the exports of skins and hides. The levy aimed to stimulate the development of the leather sub-sector such as shoemaking and the processing of hides and skins to the finished leather stage. Further taxes were waived for the trade exportation of finished leather. This was thought to attract investors in the sector.

However, from 13 tanneries counted early 2000s only 5 tanneries remain nowadays and work below their installed capacity. Several factors led to this, namely the importation of second-hand shoes and synthetic leather products. This has taken Tanzania's leather industry to a level of collapse as it remains dependent on exports and foreign markets.

The business of hides and skins is thus highly affected by the pandemic because it largely depends on the foreign market. Therefore, following restrictions in good and people's movements, some tanneries ceased their operations. As a result, livestock keepers have borne the brunt of the situation. The opening of a new factory owned by the government in Moshi constitutes however a new hope for livestock keepers.

6. Lessons Learnt

The pandemic has led to a decrease in livestock and related products' business in Tanzania. Meat trade volumes, prices and added value have all been affected. Our analysis has shown the areas where the livestock sector has been impacted, and which areas need policy intervention to make the sector resilient. When it comes to recovery, it can be observed that Tanzania's livestock sector business was on the rise with increased meat products' exports such as chicks, skins, hides and leather. The closure of some borders and travel restrictions hamper the livestock sector from expanding.

Trade is very important for the sustainability of any sector. The development of the local markets equally. Interventions are also needed to support the meat business with investments injected into the cold chain and air cargo that could boost the livestock sector.

The pandemic generally shows that trade is essential for the sector to grow. More investment is needed to promote domestic consumption of livestock products. Currently, meat consumption in the country is below the FAO requirement of 15 kg of meat annually. In the wake of Covid-19, the sector's competition depends much on the performance of other industries which are major users of livestock products such as tourist hotels. However, for the countries' producers to access the international markets, the domestic market should require high quality too. Porter (1989) argues that sophisticated consumers who demand high quality goods in the domestic market create more pressure for firms which are more likely to successfully penetrate foreign markets based on their experience within the local market.

Literature shows that animal feeds contribute about 75 % of the cost of animal rearing in Tanzania. Although these findings have not managed to clearly show how much of the cost is attributed to imported additives and the price of raw material at average. But there is a consensus that

the price cost is accelerated by a number of reasons, such as the cost of importing animal feed additives and cereal price fluctuations within the country. The price fluctuations for cereals can be minimized by a number strategies such as the use of other non-traditional cereals which can have the same rations of needed carbohydrates. For imported animal feed, there is a need to minimize or to remove charges on imported additives in the country.

Tanzania's livestock will be resilient from Covid-19 as the sector depends on domestic business. New exportations have just started for day old chickens and meat. However, the sector is depending on inputs from other countries. More policies would be needed to waive trade tariffs on animal feed and to promote cold chain and air cargo. Also, knowing the country's potential, more policies are needed to accelerate the exportation of livestock products.

As other economic sectors have been hit in the country means however that even the domestic market is likely to fail in absorbing the sector's production. That calls for more foreign investment opportunities than the country already has. Tanzania can benefit from trade in the animal feed business, milk business and in particular cheese and meat. In that regard, we do call for more policies that will, in turn, accelerate cross-border trade with Kenya, Uganda, Rwanda and Burundi.

The trade war that is currently going on in the region regarding the flow of livestock products (more particularly, milk) between Kenya and Uganda shows that many possible options will not arise in the near future. Kenya imports milk to Nigeria, while Uganda exports its Lato milk brand within the region. In the same vein, Tanzania could benefit from 177 million consumers within the region. But in order to access these markets, more has to be implemented such as removing levies for exported livestock products (currently Tsh 100 for exported kilograms of meat). Besides, more relief has to be given to Tanzanian mainland producers to sell to the Zanzibar market without levies. In fact, the current livestock products, when heading to Zanzibar, are impacted by levies, and are sadly not considered to be a matter of interest for the union government.

7. Conclusive Remarks

The livestock sector is of primary importance in Tanzania, employing around 50 % of the population – not only food producers, herders and

caterers, but also traders, transporters, animal health workers, or again retail outlets. The Covid-19 pandemic emerged in Tanzania in a favouring context for the livestock sector. Demand was increasing as income, urbanization and lifestyle standards were improving, and since mid-2018 the government implemented initiatives to boost the sector. For example, in the meat business, the government implemented a levy for imported beef which increased domestic entrepreneurs' opportunities. But the pandemic brought a lot of challenges to the livestock sector, particularly in areas relying a lot on foreign markets whether it is for exports or imports of raw materials. Difficulties emerged also overall because of a lower demand (closure of bars, restaurants, hotels...) and because of delays and increased costs in delivery services. More precisely, animal feed ingredients have experienced a supply deficit of raw material production coming from foreign countries – the movement restrictions led to less trade, higher prices, less competition and, therefore, lower quality. The meat business has been affected by the reduction in tourism, public events, ceremonies and so on – which led to the closure of factories. The milk business (and related products such as e.g. cheese) has also been affected by the reduction of public events and by the closure of hotels and tourism. The same conclusions can be drawn when it comes to the chicken and chicken meat business – it is mostly a domestic market – not very affected on the short run but still sensitive to the closure of restaurants, bars, public events etc... Products dependent on the foreign markets (e.g. leather) have been more hardly hit.

These conclusions allow to draw some policy recommendations – it seems that areas relying primarily on foreign markets were more affected by the pandemic than others – but it is important to understand that even areas relying on domestic markets primarily need to be able to expand. Policies should promote more exportations – especially of processed products – and enhance investments and consumption, notably by waiving trade taxes and levies, to dynamize the economy. This would make the economy more sustainable and resilient when the context will allow it.

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Part II

RESILIENCE TO GLOBAL CHALLENGES AND TO CLIMATE CHANGE

Chapter 4

Multinational Enterprises (MNEs)¹ and Local Supply Chains: Prospects on Poverty Reduction, Trust and Sustainability

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1. Introduction

In 2015, 195 countries, Tanzania included, adopted a set of 17 “Sustainable Development Goals (SDGs)” to end poverty, protect the planet and ensure opportunities for all. The global intention was to reduce by half the level of poverty by 2030. Achieving this goal would require efforts on behalf of national governments, the business sector, non-governmental organizations, civil society and individual citizens. There was also a general global consensus that, through business activities (including both MNEs and local economies), the countries could minimize the level of poverty (Agarwal, 2017). There are less studies, however on the direct role of business in poverty reduction, and sustainability practices with a focus on multinational enterprises (MNEs) in developing countries (Kolk, 2016). In this chapter we argue that Trust, Knowledge and active policies are an important factor for MNEs to resort more to local supply chains. We will try to highlight the existing and possible resilience strategies. Finally, we will suggest a possible way forward in the conclusion.

Previous studies focused on the spillover effects of Foreign Direct Investments (FDI) and most of them were focusing on countries like China, India, Brazil, Russia and successful emerging economies (Narula,

¹ A multinational business (MNE) is a company that produces goods or provides services in more than one country. It can also be called indifferently multinational corporation (MNC), multinational firm, or international corporation. Multinational corporation's management headquarters are located in one (or rarely more than one) country: the home country, and it operates in other countries, the host countries.

2018; Kolk, 2016). This resulted on expectations and attention on how developing economies in sub-Saharan countries like Tanzania could further attract FDIs. Looking more into details at the impacts of MNEs in terms of local economy and poverty reduction in Tanzania, is however highlighting a set of vulnerabilities (and gap of expectations) in the link between the “modern” MNEs and the local producers and supply chains. In this chapter, we do not question the need to attract FDI but we argue that to end poverty more actions are needed to link local SMEs and local farmers to the MNEs, in the respect of SDGs and sustainability practices.

This chapter indeed advocates that the current situation could be a call for a more sustainable local economy to emerge. Despite some efforts from the Tanzanian government and several partners’ organizations – poverty as well as inequalities do not decrease. In response to this situation, it is usually admitted that the Tanzanian market should be enhanced (eg through local supply chains and local production), in particular within rural communities that represents a majority in the country. This should be done under the right conditions, namely – the action of government to enforce contracts and laws to enhance trust, whether it is trust from the MNEs in the quality of the products and services produced by the local producers or the trust of the local producers in the MNEs to give them power of negotiations and appropriate incomes. This economy could be centred on the needs, sustainable principles, and SDGs, and would be more resilient to future crises. This model would however not undermine the necessity to modernize agricultural production, to develop sustainable irrigation systems, storage (e.g. cold chain), and to boost infrastructure and facilities.

This chapter is structured in 2 parts: Part I addresses the findings on the lack of connection between MNEs and local food producers in Tanzania, Part II is looking at the prospects on trust, remaining poverty and sustainability strategies while highlighting the global context. The conclusion is approaching a possible way forward connecting poverty reduction, trust and sustainability practices.

2. MNE’s and Poverty Reduction in Tanzania

A multinational business (MNE) is a company that produces goods or provides services in more than one country. It can also be called indifferently multinational corporation (MNC), multinational firm, or international corporation. Multinational corporation’s management

headquarters are located in one (or rarely more than one) country: the home country, and it operates in other countries, the host countries.

Since the free-market economy principles and privatization policies were introduced in Tanzania in the mid-1990s, one of the sectors that attracted MNEs is agriculture. Several MNEs invested in agribusiness value chain activities such as Ilovo, a South African sugar company, or Diageo which owned Serengeti Breweries. With the expansion of international firms and the emergence of MNEs from developing economies there is a need to understand how MNEs can better integrate SDGs and the fight against poverty in the host country.

The Tanzanian government has embarked on different programs that intend to reduce poverty such as MKUKUTA². Furthermore, different organizations such as JICA, SIDA, NORAD, DANIDA, IMF and the World Bank have developed programs to support the Tanzanian government in the fight against poverty. Despite these efforts, the country's poverty level is increasing, and the gap between poor and rich populations is soaring. There is a general understanding that through market access, poverty can be reduced in the country because more than 70 % of the population relies on agriculture for their living. Therefore, the development of the market would lead to more income for rural communities and thus reduce poverty. However, to be linked to any value chain, local farmers have to achieve some necessary conditions such as producing goods of high quality and accepting trade terms set by MNEs.

Since the country decided to embark on privatization in the 1990s, there was a popular belief that investors would create more opportunities for host communities (local populations), that many would be linked to the global value chain and create opportunities for local SMEs. However, there is an outcry that multinationals in the country buy products from their home countries, therefore reducing the positive impacts (Nandonde, 2016). As a defense, MNEs claim that local producers do not have the capacities to produce high quality products. Therefore, in order to improve their performance, resources have to be injected by the national government. Yet, the government claims to not have enough resources to support small-scale farmers to meet the MNEs requirements. In that regard, it was expected that MNEs would intervene in the value

² Tanzania's National Strategy for Growth and Reduction of Poverty. (in Kiswahili). Mkukuta I was the forward looking strategy for 2005–2010 and Mkukuta II for the period 2011–2015.

chain through resources to support local producers through a number of programs such as contract farming, capacity building and corporate social responsibility (CSR) activities (Kolk, 2016; Agarwal et al. 2017). However, CSR has remained voluntary like elsewhere and the sustainable impacts of CSR-related activities would need to be further demonstrated.

To integrate the SDG's goals in business operations with an interest in eradicating poverty to the surrounding communities is something equally very challenging for corporate managers (Kolk 2016; Narula 2016). For example, in a country like Tanzania, fishers are required to protect the sea environment and the oceans, by avoiding the use of fishing techniques that would destroy the environment. As a result, they will be required to use advanced fishing equipment which is more expensive for them. This limits access to the market for many. Furthermore, it is very difficult for an MNE's investor to engage poor local fishers because their level of trust is very low, and because there can be high levels of opportunistic behaviours from MNEs (Nandonde et al., 2018). As a result, MNEs (e.g. large hotel chains) will need to import processed fish from abroad resulting into more host country actors to be marginalized. Poor communities are increasingly at the brink of being marginalized and achieving the SGD1 set goal of reducing poverty will be difficult.

In this kind of scenario, MNEs will need to design a much broader approach towards local farmers and poverty, for countries such as Tanzania to achieve its objective of reducing poverty by 2030. Setting new business models combining poverty reduction and sustainability can be very challenging, especially in a society where it is very difficult to enforce contracts (Nandonde, 2016; Narula, 2018; Kolk, 2018; Agrawal et al., 2017).

As policies are very fragile, they limit the ability of value chain actors to predict market moves within the country and region. For example, there was a recent ban on the exportation of maize, rice and animal skins while neighbouring countries like Kenya had a huge demand. Uncertainties for investors could for instance endanger initiatives that could be done by MNEs to support social investments. How could MNE managers design business models that can accommodate poor families and farmers characterized by low levels of trust? How can institutional arrangements enable MNEs and local producers to work together?

To understand the impact of the MNEs practices on poverty reduction in Tanzania, it is important to understand the development of the country's agri-food business. Kolk (2016) calls for more studies on the business roles on achieving SDGs in developing countries.

Tab. 1: Some MNEs in Agriculture in Tanzania

SN	Company Name	Country of origin	Value chain activities
1	Illovo Sugar company	South Africa	Sugar cane farming and sugar production
2	Tyson Food	USA	
3	Diageo	UK	
4	ABInbev	Belgium	Beer production
5	Japan International Tobacco	Japan	Cigarettes

How can practices to reduce poverty of MNEs connect with marginalized suppliers to market shape the business practices, and boost marginalized suppliers' performance?

The level of poverty in Tanzania is decreasing. The country still has an average of 26.4 % poor people, according to the World Bank³. However, there is an outcry that multinationals in the country prefer importing food products rather than buying local products. This situation reduces the positive impacts for local country producers, as well as for the local populations (Nandonde, 2016). For example, producers of beer were expected to promote and buy locally produced barley. The consumption of beer is indeed increasing in Tanzania and in Africa but the continent is still largely importing barley. Among the factors explaining this, we can list the following: institutional arrangements, taxes and low efficiency in production which makes locally produced commodities more expensive compared to imported ones. For example, research shows that the higher price offered for locally produced onions in the country leads them to be left out of the global value chain (Vorley, 2016). To minimize the impact, different techniques were introduced in the country. For example, there was a ban on the importation of sugar and chicken meat for the protection of local producers. Furthermore, the government has even directed MNEs operating in mining sites, oil and gas exploration to buy food products from local firms.

Despite these initiatives, local farmers and entrepreneurs complain that MNEs are not paying suppliers for their products and services on time which limit their performance. This situation of farmers (not being

³ World development indicators, World Bank 2020 <https://data.worldbank.org/country/Tanzania>

paid for their commodities) is very common in Tanzania. For example, the study by Martin and Sharp (2016) shows the difficulties of contract farming of sugar growers in Mtimbwa and reports payment delays for farmers, a lack of fairness in harvesting quota allocations and a lack of transparency in the products' quality and weight. There is a need to ensure that the value chain brings enough benefits to its actors (Leconto, 2010). This could be the role of the host country's government: ensuring that actors get benefits for their investment.

The 17 SDGs offer an ambitious agenda for organizing research on MNEs and poverty reduction in developing economies. We rely on SDGs number one goal: "end poverty in all its forms and everywhere". We understand that ending poverty is very complex, and that different perceptions need to be considered. However, we will narrow our focus on the contribution of MNEs on ending poverty in Tanzania with a focus on business operation, before we can bring more theoretical highlights in the second part of the chapter.

In general, for business activities to have an impact on a community, specifically for a country like Tanzania, the government has a role to play. The role of government can be in the form of establishing a conducive business environment for actors and enforcing contracts. One of the concepts that addresses the linkages of marginalized growers in the value chain is contract farming. However, the Agrifood business in Tanzania is characterized by small-scale farmers who are trustworthy in fulfilling promises and commitments to other actors in the value chain (USAID 2008). This limits small-scale farmers who have scarce resources to be sidelined from the value chain. Indeed, former studies show that modern food retailers in Tanzania would partly rely on imports, rather than on local food chain production of small farmers – who are overrepresented in the poor population (Nandonde, Kuada 2016).

For MNEs to operate in that kind of business environment, the host country government has a role to play in influencing the linkages of the actors in the value chain. But studies show that the enforcement of contracts is very difficult in developing economies including Tanzania (Fafchamps, 1992).

This first part has shown that there is no direct link between the development of multinationals, (foreign direct investment) and a drastic reduction of poverty. MNEs tend to bring positive impacts in terms of employment, consumption and satisfaction of the needs of the country's middle class, but that these impacts do not trickle down (or spill over)

to the poorer population. We assume in this article, that this gap could be reduced if the MNEs would rely more on local supply chains and be provided more knowledge, trust and information on the quality of products or services. The second part will address the missing links and coping strategies for the local supply chains to benefit more from the investments of MNEs.

3. Prospects on the Global Context, Trust and Sustainability Strategies

The question of multinationals and the positive/negative impacts on the local economy and on poverty are not specific to the Tanzanian context. In Europe, the growing debates on how MNEs⁴, contribute to the national economy and social equity, is a current and polarized debate. This has led to a growing regulation from both the European Union and national governments. The idea was to make sure that the national and local SMEs and entrepreneurs would not be affected by situations of monopolies, and that the social rights of the employees would be respected.

Globally, the debates on trade liberalization versus protectionism is highly debated among the world's largest powers that are the United States and China, with ongoing questions over power, exports and tariffs. On top of these developments and debates, more and more environmental concerns have emerged on the limits of resource availability (in particular for fossil fuels) and the protection of the planet. The 2015 Paris agreements have called for a more sustainable economic development that would bring more balance between People, Planet and Profit. Not only Sub-Saharan countries but also European countries are muddling through trials and errors to develop more sustainable economic models, with more focus on short circuits, the needs of local economies and a more "circular economy".

Based on the findings of this chapter's first part, this second part will present prospects on the global context, analyse Trust and remaining Poverty as parameters, and propose Sustainability Strategies. Finally, we will suggest a way forward in the conclusion.

⁴ E.g. The GAFAS.

3.1. Globalization and Trade Liberalization: Power and Interdependence

The debates about globalization and trade liberalization have often been polarized. There had been a polarization between the free capitalist economy and the planned economy since the end of the 19th century. At that time, the social movements echoed Marx and Engels' theories on the fundamental inequalities between capital owners and the rest of the population. After the fall of the Berlin wall in 1989, authors like Fukuyama advocated for the "end of history", as if the economy would be a political end. Since then, the debate has more or less shifted towards "embrace or protest" of globalization and trade liberalization as a whole. "Globalization is the intensification of global interactions of interconnectedness" (Tomlinson 1999). These interactions can be understood as applying to countries, as well as business institutions.

Some studies in Tanzania, such as the one drafted by Bisoma Ernest Bisoma from the University of Tanzania clearly highlight the ambiguity of globalization (Bisoma, 2017). Among the identified negative points, some like acculturation and the standardization of consumption are definitely out of the scope of this chapter, but others can be identified as points of vulnerability for the development of a more sustainable economy: namely a certain imbalance in power and negotiations (e.g. the question of debt) as well as an increase in inequalities.

Trade liberalization is one key element of discussion among countries. Trade liberalization is the removal or reduction of restrictions or barriers on the free exchange of goods between nations. This includes the removal or reduction of both tariffs (duties and surcharges), and non-tariff obstacles, like licensing rules, quotas and other requirements (Mkubwa, Mtengwa, and Babiker, 2014). The removal of these barriers and restrictions is referred to as promoting "free trade". This free trade movement has been extremely important in the last decades, from the end of the 1980s, and is highly supported by international organizations such as the World Bank and IMF. While, in reality, only a few regions have achieved a complete "free trade" area because of the concerns and delays in regulations they need. In Tanzania, in recent years, the opening of borders for trade has been seen as a way to obtain high and sustainable growth, so as to prevail in a challenging world of trade relations, despite the prevalence of imports above exports (Mkubwa, Mtengwa, and Babiker, 2014).

In the current 2021 context, we do however observe some drawback movements among the largest regions, as exemplified by the Brexit difficult negotiations and the US/China trade war. In addition to this, the question of subsidies is at stake in the global markets. This can be considered as a distortion of competition and has long been a barrier for China to join the World Trade Organization. Alternative models were proposed without replacing the current system (Barbieri, 2019). In terms of agricultural markets, EU subsidies for their local productions are considered by many NGOs as a distortion of “free trade” and as creating an imbalance between Europe and third world countries. Vulnerability points in a global free trade movement therefore include the imbalance of power, distortion and the question of interdependence.

This question of interdependence is indeed very central to the current global economy. The current pandemics have shown a certain risk of distortion of the interconnected global value chains (e.g. in the production of masks, and in the current manufacturing of the vaccine). Indeed, some countries in their development strategies, have highly specialized in one or two areas (textile, manufacturing, production), while others have specialized in very high intensive R&D and service development. This creates interdependence and interconnections, which goes beyond the governance of national states and international organizations. This situation can also be of a concern for citizens, especially that the current economy has crystallized around complex mechanisms and markets which are out of reach for most of the world population.

3.2. Remaining Poverty: Legacy of the System?

Highlighting the limits, boundaries and controversies of the current system of global value chains, in the current settings, is neither evidence nor advocacy for a protectionist model. The globalization’s benefits are described in most of the economic literature (Oramah and Dzene, 2019). More recently, the developments around digitalization and the spread of mobile phones worldwide could represent a huge potential for development.

The question of poverty is central to the debate and assumptions in this chapter. But what are the causes and what are the consequences? Is remaining poverty a starting point or a legacy? Is the system creating poverty or is the system unequal because of its persistent poverty? Some authors have indeed shown how poverty can be a remaining factor no

matter what type of implemented development or system. Sarah Bracking in her working paper “The political economy of Chronic Poverty” shows, for instance, that in Sub-Saharan countries such as Tanzania, the dual currency of the Tz shillings and dollars creates an imbalance between the elites (who have dollar reserves) and the poor population affected by the different waves of devaluation. She also clearly shows that any change and modernization creates a series of “winners” (those who can cope with and benefit from the change) and “losers” (the ones who cannot adapt to this change). ‘Agriculture modernization creates a group of destitute people, as a corollary of increased wealth stratification’ (Bracking, 2003). This is what she calls “adverse differential incorporation” where a part of the population would not be “incorporated” to the change and development and could on the contrary be thrust into poverty (Bracking, 2003). There are limits to the simple categories of inclusion and exclusion in the context of globalization and policy debate. There is a greater accuracy in the term ‘adverse differential incorporation’ to describe and understand poverty as a dynamic, variegated, and stratified category of individuals and groups adversely and differentially incorporated into the global economy by the process of globalization or global political economy (Bracking, 2003). She equally highlights the fact that this trend is visible in both planned and free economic systems. Equally, in a rapid modernizing economy (e.g. in Bangladesh), rapid urbanization and development have both come with land use changes and forced evictions which have created poverty by rejection mechanism (Bracking, 2003). Finally, quoting Stiglitz, she underscores the difficulties related to rapid change and transformation “Rapid Transformation destroys old coping mechanisms, old safety nets, while it creates a new set of demands, before new coping mechanisms are developed” (Stiglitz, 2001: xi). This means that a quick modernization in agriculture systems could lead to a decrease of resilience strategies for the part of the farmers who would not benefit from it. Therefore, beyond the current policy and economic debate, the decrease of poverty and extreme poverty comes as a complex set of parameters, where stability and trust are very central elements.

3.3. Trust as a Parameter

Trust is an important parameter in both the global and business environment (Tilly, 2015; Hardin, 2004; Fafchamp, 1992). It is indirectly a question of trust which is at stake in the negotiations between

local suppliers and modern retailers in the agro food business (Nadonde, 2016), as the questions of trade in general are undergoing ups and downs depending on trust (trust from the main stakeholders as well as trust from consumers). The economy is indeed dependent on a reliable set of expectations (in terms of quality, delay, packaging and delivery) which induces the need for trust in the process, systems, products and suppliers. Unreasonable delays, logistic difficulties and an uncertain business environment often come as a barrier to a sustainable and prosperous business development. Trust is a mechanism to reduce social complexity and anticipate risks (Luhmann, 1979). For Luhmann indeed, trust serves to increase the potential of a system to adapt to complexity. Its function is the reduction of social complexity by increasing the “tolerance of uncertainty” (1979:150). As such, the concepts of trust and distrust can be applied to institutions and firms (Farell, 2004). It is also expected that money transactions would collapse without trust (Simmel, 1978:178–79), and this would also be valid for any economic system and institutions such as banking and finance institutions, as well as the business environment. Interestingly enough, and as Hardin and Farell argue, the question of trust is linked to power and can be affected by extreme power disparities: “If, as Hardin has argued, trust is not present in relationships involving extreme disparities of power, at what point do power asymmetries change their casual weight, so that they no longer merely affect trust relations, but instead make them impossible” (Farell, 2004: 89). There indeed seems to be a turning point in any economic or social system where the imbalance of power reaches a certain point. When this point is reached, trust becomes impossible and turns into distrust. This is of course mainly theory and does not take into account all parameters and differences among trust networks and communities (Tilly, 2005). The increasing rise in inequalities may therefore create a turning point, where trust is made impossible. In addition to this, from a micro economic perspective, it becomes also obvious that trust cannot replace a set of rational choices to set up expectations. Farell on this argues that firms would rather prefer diversifying their suppliers, than relying on one single supplier which they would need to trust (Farell, 2004: 94).

To close the loop with the previous paragraph, we therefore confirm that interdependence may deter trust, especially in a context of power imbalance. This would also explain certain reluctances on opening national or regional economies. Former colonial history can also explain a certain level of distrust towards FDI and international MNEs. On the

contrary, the creation of trust networks within societies and local economies (Tilly, 2005), can create necessary conditions for cooperation and a more collaborative economy, which could be then a strong factor for resilience.

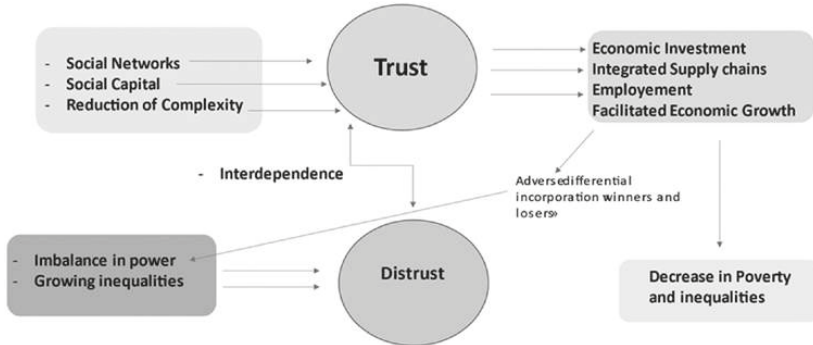


Fig. 1: The Trust Parameter Author Gaborit Pascaline

In the sector of agri-food in Tanzania, research equally shows that Trust is important in establishing relations between suppliers and buyers in agri businesses (Nandonde and Kuada, 2016). The author already noted that ‘these variables could be further examined in studies on trust and power in the food value chain’. Better knowledge, trust and active policies would therefore be necessary to close the gap between MNEs investments and an enhancement of local supply chains.

3.4. Towards a More Local and Circular Economy Centered on Needs?

As we have seen previously, there are difficulties and trials and errors when it comes to finding a path towards sustainable development in many parts of the globe. Rising inequalities and remaining poverty equally comes as a concern, while the alternatives to finite resources and especially fossil fuels are not yet entirely known. The Brundtland definition of sustainable development as ‘development which meets the needs of the present without compromising the ability of future generations to meet their own needs’ encompasses both assumptions that the resources are finite, but also that social aspects and justice need to be acknowledged.

This is also why, more and more organizations such as the European Union, the MacArthur Foundations and governments in Japan, China or Canada have called for a more circular economy⁵: ‘The model of a linear economy, in which it is assumed that the environment has an unlimited capacity to absorb waste and pollution is dismissed. Instead, a circular economy is proposed, in which the throughput of energy and material is reduced’. (Cooper, 1999, p. 10). Drawing on concepts such as “cradle to cradle”, the circular economy indeed proposes alternatives to the current economy by proposing to reduce, repair, recycle, reuse and recover waste (or rethink the current production patterns). The first evaluation of the 2015 circular Economy Action Plan in the European Union would show very positive outcomes ‘Circularity has opened up new business opportunities, given rise to new business models and developed new markets, domestically and outside the EU. In 2016, circular activities such as repair, reuse or recycling generated almost 147 billion Euros in value added while standing for around 17.5 billion worth of investments⁶’.

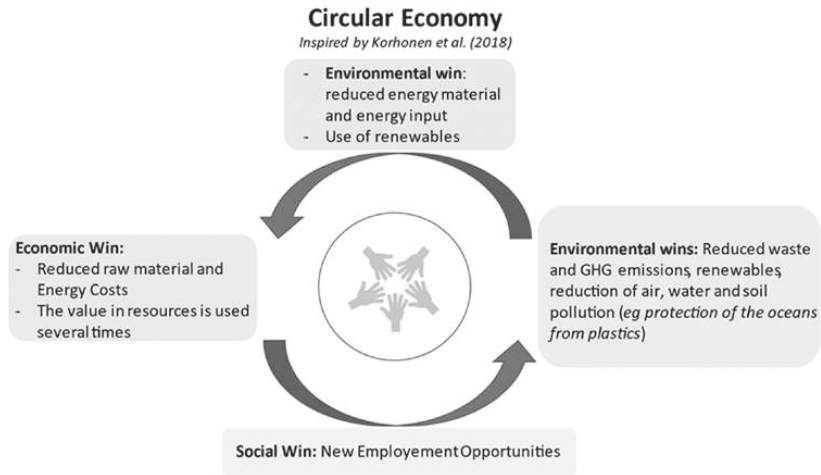


Fig. 2: Circular Economy. Author Gaborit Pascaline. Inspired by Korhonen et al. (2018)

⁵ EU 2020 First Circular Economy Plan and 2014 Circular Economy Strategy.

⁶ Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the implementation of the Circular Economy Action Plan COM(2019)190 final p. 1.

Beyond successful practices (e.g. in the food short circuit where local suppliers are given priority), it is still difficult to find successful complete circular economy models. The failure of biofuels, in particular, has shown that “circularity” was not always the most relevant factor for sustainable development. Some authors have shown the boundaries of the concept such as the fact that it embraces different conceptions (Kirchhher, Reike, and Hekkert, 2017), that it was based on wrong assumptions (Korhonen, Honkasalo, and Seppälä, 2018) but also that it failed to address sustainable development and social aspects such as poverty (Kirchhher, Reike, and Hekkert, 2017). Indeed, it is difficult to move beyond “trials and errors” and to make sure that ‘each Circular Economy Project is considered for its contribution to global net sustainability’ or to calculate ‘what is left as improvement or positive outcome after an individual project or action, as compared to the situation before the project’ (Korhonen et al., 2018: 42). It is equally difficult to show that the problem and environmental externalities have not been displaced along the supply chain. And the concept should not be replacing the question of Corporate or Producer’s extended Responsibility, where the producers are more identified as responsible for the negative externalities, GHG and other pollution induced by their activities.

Except in the construction and demolition sector, where the reuse of construction materials has proven both environmental and economic efficiency (89 % of waste reused in the construction and demolition of waste in the EU⁷). It is indeed difficult at this stage to already capitalize on success models, notably with plastics. In the area of agri-food, however, the use of biomass and composting could be integrated into successful circular models in several regions and countries. The trend of circular economy could also be an opportunity for fast developing countries to develop success models and access international funding.

In Tanzania, the existence of circular projects such as EcoAct Tanzania demonstrates that it would be possible to transform plastics waste into construction materials bricks. Although the process has not been audited from an environmental perspective and may show externalities (e.g. on air pollution), the existence of such initiatives shows a certain potential

⁷ Eurostat Newsrelease, ‘Record recycling rates and use of recycled materials in the EU’, 439/2019, 4 March

for circular initiatives. In addition to the environmental project, the organization also proposes a social insurance against the collection of plastic waste, which would also prove interesting on social aspects and on the fight against poverty.

4. Conclusion: The Possible Way Forward and Sustainability Prospects

This chapter falls within a broader current debate on the conditions under which globalization, liberalization, interdependence(s) are beneficial to communities – particularly in the context of the Covid-19 pandemic. These processes are often criticized for various reasons – especially the creation of imbalances in power and negotiations, the unsustainable use of resources, and an increase of inequalities. This chapter is no advocacy for protectionism – it is argued here that these processes, under the right conditions, can be beneficial to the entire community.

There is no direct and strong proven relationship between MNEs and a drastic reduction of poverty but they tend to have a positive impact on employment, consumption and satisfaction of the country's middle class – the challenge is now to extend their positive impact to the poorer population. This is argued here that there is a responsibility of the government, the development partners, and the private sector to create new synergies making these MNEs rely more on local supply chains. For this to be realized more trust is needed – trust in the institutional framework and its ability to enforce contracts and promote stability, trust in the MNEs business and labour practices, trust in the quality of products and services produced by the local producers. Trust appears as an essential parameter to promote this cooperation.

As we have demonstrated earlier, there are still several areas and problems which need to be taken into consideration when trying to understand the link between MNEs (e.g. through Direct Foreign Investment) and the reduction of poverty. To address major challenges such as poverty reduction and the reduction of malnutrition, there is a consensus that modern agriculture practices, storage and access to markets are necessary. We highlight three areas for which further research and policies could pay attention to the possibilities and improvements of contract farming, possible spillover effects and the promotion of MNEs for better sustainable environmental practices.

4.1. Contract Farming

Poor people don't have the ability to invest in hybrid seeds and resort to other good agronomic practices that may assure them proper harvest and produce the high quality that is required by the market. Small farmers are marginalized in accessing large and global markets. Contract farming could be a solution for farmers, although experience still shows existing limitations such as delays in payments and fairness in harvest quotas (Martin and Sharp, 2017). It is important to underscore that this contract farming approach is not new in countries like Tanzania. Different organizations have engaged in this market linkage technique and some proved successful although others faced difficulty. To make it more successful regulations, policies and mediation could have a role to play. Indeed, the enforcement of contracts is very difficult in Tanzania and the level of trust among suppliers and buyers is low.

4.2. Spillover Effects

One of the claims is that MNEs will not help Tanzania and Africa in reducing poverty due to the fact that they don't buy the harvest from local producers. This leads to a market failure and for MNEs to buy from their country of origin instead of from local suppliers. This means that more money is going out of the economy. We understand that one of the challenges that has been shared by MNEs is the lack of sophisticated entrepreneurs who meet their requirements in terms of quality, reliability and terms of trade. A way forward could be to develop capacity building for farmers to have better knowledge about quality issues, good agronomic practices and expectations. Banks and credit organizations could also support a new model for development integrating sustainable and respectful resources.

4.3. Promotion of Sustainability Practices

All actors including MNEs have a role to play in promoting sustainability practices among actors in the value chain. To be more sustainable, the fight against poverty has to go hand-in-hand with the promotion of sustainable practices such as the promotion of modern agronomic practices, a circular economy, better waste management, a more sustainable

use of resources, the protection of water catchment, and a generalized education. Currently, African producers have engaged in sustainable production program like fair trade to foster markets where they observe a number of sustainable schemes such as sustainable (modern) agronomic practices and a reduction of child labour (for the benefit to education). Credit organizations could also be involved in checking that sustainability practices and ethical principles are properly applied.

To have a substantial impact on SDGs, the multinationals and investors would need to identify key sectors such as health (SDG3), clean water (SDG6), social insurance (SDG10), renewable energies (SDG7), climate friendly production systems (SDG12) or Research and innovation (SDG9). Agriculture- including agri-Food- is equally an important sector related to food security and the fight against hunger (SDG2), but which could also be related to other SDGs such as (SDG12) sustainable production and consumption, (SDG8) decent work and economic growth. As this chapter has shown, the first SDG (the fight against poverty) is a complex matter. Given any innovation uptake and investment will create employment but may further push away the extreme poor, they will not be able to adapt to modernization. This is even more sensitive in the agri-food sector where modern retailers may rely on imports, instead of calling for local supply chains. We have shown that trust, knowledge, and active policies are relevant parameters. This is why, beyond the identified vulnerabilities linked to interdependence, and the changes related to constraints, it is possible to identify coping resilience strategies and to link the poverty reduction to better environmental, ethical and sustainable practices. Among them, boosting local economies to answer needs and SDGs (e.g. a circular economy) could feed growth and employment, while being more respectful to resources and ecosystems. The local food producers could become key agents of change and investors into a more circular economy centred on the needs, while being adaptive to the demands of multinationals. The youth also represents an important game-changer in the future economy. Young people, in particular, are very much involved in changes related to digitalization. As detailed also in the second part of this chapter, trust building and trust networks are important parameters towards both the creation of a sustainable growth, employment opportunities and the implementation of SDGs including the first one: the fight against extreme poverty.

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Chapter 5

Vulnerabilities and Resilience to Climate Change in Tanzania

PASCALINE GABORIT PHD

“The main challenges facing Tanzania at present is the need to balance accelerated economic growth, with a more efficient management of the environment, and the use of natural resources to ensure sustainability, and to address the issue of climate change”.

NAPA Vice President’s office, UNFCCC

“The alarming projections of global warming consequences stand in stark incomensurability with the available proposed solutions” (Russill, 2008, p. 147)

Climate change is one of the major threats of our time. It is expected that in the next decades, climate disasters such as typhoons, floods, sea level rises and dry spells will be more frequent, while disruptions in the ecosystems and water resources may jeopardize food security and lead to population’ displacements. This will hit several regions of the globe, including Sub-Saharan Africa. In 2015, the Paris Agreement was a wake-up call to fight against climate change as one of the major priorities, by limiting the rise in temperatures from 1.5 to 2°C. Five years later, with the world ravaged by a pandemic which has killed over a million people, the reality appears even more complex, as the climate, economic and security challenges appear more and more intertwined.

Debates around the European Green deal have shed light on the necessity to integrate climate and the environment as a key factor for future investments, and to make sure that economic development is decoupled from GHG emissions and the overuse of natural resources. In this regard, the questions of more circular systems (5Rs)¹, as well as the

¹ Reduce, Reuse, Recycle, Refurbish, Regenerate.

nurturing of carbon sinks (conservation of ecosystems), are emphasized. But climate change and the global economy do not know any borders... Knowing how countries worldwide are exposed to climate change and organize a response in their different realities, is important to understand further resilience. In this chapter, we argue that Tanzania and other Sub-Saharan countries are more exposed to climate hazards, less equipped to cope with it than higher-income countries and that the costs of environmental degradation are much higher in terms of climate vulnerability and resource depletion.

According to recent projections, the vulnerability to climate disasters will have substantially more impacts in Southern countries, including in Sub-Saharan Africa, while the capacity to respond to these disasters may not be sufficient as the impacts increasingly unfold. Additionally, environmental degradation (deforestation, soil erosion and depletion of the ocean) has a higher impact because many people rely more directly on these resources and it reinforces vulnerability as a vicious circle. Tanzania is a country which perfectly reflects this dilemma and interrelation in terms of inequalities.

This chapter will address the questions of the vulnerabilities to climate change and highlight the enabling factors towards a more resilient development. It will investigate how different resilience factors could be further studied and developed. The country benefits from a rich endowment in natural resources, ecosystems, wildlife, and forests. There is a national disaster management strategy. We can assume that emerging climate-related initiatives, or a shift to a climate-based development, can bring a substantial contribution to development (e.g. in the sector of renewable energies), if the different socio-economic and eco-systemic complexities are taken into account.

Tanzania is one of the largest countries in East Africa and has a rapidly growing population. As described in the previous chapter, its economic growth has been progressing over the years and has led to a decrease in extreme poverty, even though 28 % of the people remain below the nationally determined poverty line²... The current population of 59,734,218³ is expected to increase to 130 million in 2050⁴. Rising temperatures, longer

² World Bank Group *Financing Climate-Resilient Growth in Tanzania*, September 2015.

³ UN data for 2020.

⁴ World Bank Group *Financing Climate-Resilient Growth in Tanzania*, September 2015.

dry spells (drought events), more intense heavy rainfall and a sea level rise make Tanzania vulnerable in terms of risks⁵.

The chapter will address the *severity of the impacts of climate change as an approach to vulnerability* (Part I) but also analyse *the enabling factors for resilience* across different sectors (Part II). In the case of Tanzania, we indeed assume that both climate mitigation and adaptation are very much intertwined with the country's vulnerability and resilience profile of the country.

The chapter is based on desk literature from international cooperation programs and the project's research, as well as interviews with 10 key informants. It aims to share some thoughts on vulnerabilities and resilience factors, to eventually enable stakeholders to identify possible realistic solutions for sustainable development. Another ambition of this chapter is to reflect on resilience factors for climate adaptation in different settings.

Finally, this chapter is a wake-up call for more coordinated global action including multi-sectoral research on its impact on Southern countries.

1. The Severity of Climate Change and Its Impacts: An Approach to Vulnerability

The impacts of climate change are well-known, but still undergoing research. They are sometimes difficult to evaluate exactly. In particular the link between a series of occurring disasters (such as heat waves, droughts and floods) and climate change is not always directly demonstrated as we rely on an analysis of long-term projection. However, if we focus on the vulnerabilities of a certain territory or country, we can better collectively prepare for adaptation and develop strategies. This is why this first part will define climate vulnerability and resilience (1.1.), detail the exposure of Tanzania to climate change risks and detail the country's emissions profile (1.2.). Finally, in (1.3), we will sweep across the potential impacts of climate change on different sectors: agriculture, food, energy, cities, coastal areas, water and public health. We will argue that vulnerability is a vicious circle, in which the impacts of further environmental degradation become increasingly severe and costly over time.

⁵ USAID Tanzania Climate Risks Profile, Factsheet 2018.

1.1. Defining Climate Vulnerability and Resilience

Vulnerability in terms of climate adaptation has a proper definition (Tobey et al. 2011; Butterfield, 2020). “*Vulnerability is defined as the degree to which a human or a natural system is susceptible to, or unable to cope with adverse effects of climate change*” (IPCC, 2014; Tobey et al. 2011, p. 2). In its terminology, the UNDRR the United Nations Office for Disaster Risk Reduction defines vulnerability as a set of conditions leading to a higher exposure to hazards: “Conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual a community, assets or systems to hazards”. The theme also encompasses concepts such as the sensitivity or susceptibility to harm and lack of capacity to cope and adapt (Butterfield, 2020).

Hazards are defined in the UNDRR terminology by a “process, phenomenon, or human activity that may cause loss of life, injury, or other health impacts, property damage, social and economic disruption or environmental degradation”. The association of the terms resilience and vulnerability has been popularized by the 2015 UN Sendai Disaster Framework which elaborates a methodology against disasters based on prevention, preparedness, early warning recovery and reconstruction. Its scope includes natural disasters but also climate-related disasters such as droughts, floods, typhoons, and other extreme weather events. The advantage of addressing the questions of climate change in terms of vulnerabilities is that it encompasses different sectors such as agriculture, water, forestry and health but also human factors and socio-economic development, including an analysis based on power (Féron, 2021).

1.2. Vulnerability and Exposure to Climate Change Risks

The vulnerabilities to climate change in Tanzania are characterized as important in the different available assessment reports (Rudari et al. 2018; Winthrop et al. 2018), but reported empirical evidence unfortunately also shows that the impacts of climate change have already begun.

Tanzania is one of the largest countries in East Africa. The population is expected to reach 87.2 million by 2030 (World Bank, 2016). Thirty-two percent of the population lives in urban areas, while informal settlements are homes for the other 75 %. Together with the small farm holders, they represent a section of the population, increasingly at risk from water scarcity, flooding and extreme heat events.

There is a holistic and cross-sectoral National Disaster Policy since 2004, and a Disaster Relief Committee (TANDREC) operational since April 2004. It covers food security, water shortages, disaster response budgets, rapid vulnerability assessments and early warning systems for floods, or food and water security (Disaster Management Department).

The situation in rural areas is however critical. There is a huge dependency of the country on rainfed agriculture “with limited access to healthcare, education and electricity” (USAID, 2018). The projections for the next decade include decreased yields for critical crops including maize, beans, sorghum, and rice (USAID, 2018). This places food security at stake, in a country “where the natural endowment could nourish the whole population” (interviews).

The warming of the ocean, as well as the increasing sea-level rise put at risk the livelihood and food provision of coastal and inland territories. These coastal areas are indeed directly affected by disasters events, but also by water scarcity and the depletion of oceans and freshwaters (lakes and rivers). The sea-level rise jeopardizes the coastal infrastructure, threatens the coastal population (around one-quarter of the global population in Tanzania) and puts at risk the coastal ecosystems affected by the floods, the salinization of groundwater and by storms.

According to the United Nations Office for Disaster Risk Reduction (UNDRR) Index for Risk Management (INFORM), out of 191 countries, Tanzania ranks as the 25th country most at risk of disasters, the 32nd in terms of vulnerability and the 40th in terms of lack of coping capacity despite a comprehensive and advanced National Disaster Policy. The INFORM Report for 2019 classifies the risks of exposure as stable⁶.

The European Union also developed an INFORM Risk Index⁷. The INFORM dashboard is a global, open-source risk assessment for humanitarian crises and disasters which is aimed at supporting decisions about prevention, preparedness, and response. In this index, Tanzania is categorized as level 4 on a scale of 5, which means that the country is exposed to high risks (Fig. 1). This level of exposure is equivalent to the ones of countries such as Kenya and Uganda. According to Fig. 2, Tanzania ranks high in terms of exposure to droughts (people affected by droughts and drought frequency in agriculture). Tanzania also ranks extremely high

⁶ [Inform 2019 WEB spreads.pdf \(reliefweb.int\)](#)

⁷ [INFORM Risk – Dashboard \(europa.eu\)](#)

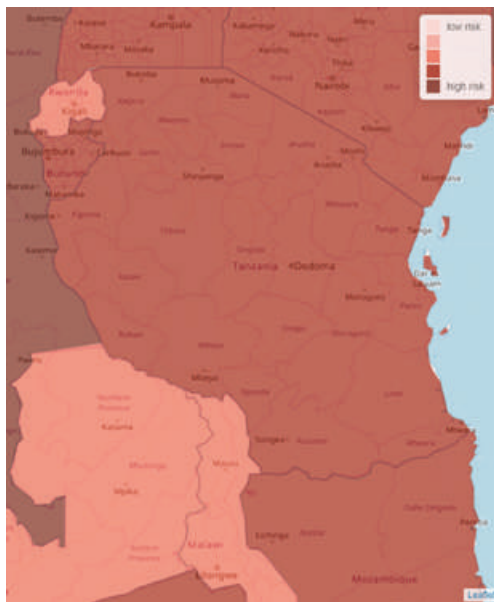


Fig. 1: EU Inform Dashboard 2020 Map 1: Exposure to risks

on the exposure to floods and (relative and absolute), in the same level category as 4/5 on the scale.

For the mapping of socio-economic vulnerabilities and vulnerable groups, Tanzania ranks 4/5 as many other countries in the region. However, in terms of lack of a coping capacity index, for the sub-indicator on infrastructure, physical infrastructure, access to healthcare, and communication, Tanzania presents a remarkably high risks profile and lies in the highest risks category. It indeed ranks in the 5th group on a scale of 5 (Fig. 3).

The Inform Risk Index also shows that although the risks and exposure to natural hazards remained stable over the last three years, the lack of coping capacity has increased, despite the national disaster strategy and the support from NGOs⁸ (Inform Country index 2021).

⁸ The set up of the food Security information system (FSIT) for instance was supported by Save the Children (UK) and OXFAM (GB), as well as by the World Food Program, and the Food and Agricultural Organization.

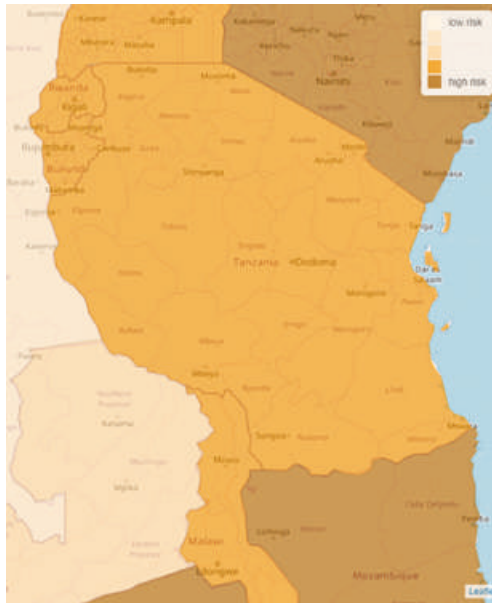


Fig. 2: EU Inform Dashboard 2020 Map 2: People affected by drought and frequency of events

1.2.1 Current Severe Impacts and Future Projections

According to the main reports related to the environment, the impacts of climate change are already very much perceived in Tanzania. The 2013 *National Strategy on Gender and Climate Change* reports that temperatures have risen by about 1°C since 1960 (an average of 0.23°C per decade), the patterns of rainfalls have become more unpredictable, while the surface of the Indian ocean as a whole has risen of 1°C since 1960 (Aguilar and Rogers, 2013). The changes of the ecosystems are also direct testimonies of climate change. Although this trend is global, more than half of the coral reefs were bleached in Tanzania and in Kenya in 1998 already (WWF)⁹. The fields of mangroves are reducing, which in turn decreases their role as buffers to climate change and storms. The Kilimanjaro glaciers and snow covers (Fig. 5) have been retreating and shrinking (55 % of the glacier has been retreating between 1962 and

⁹ <https://explore.panda.org/oceans>

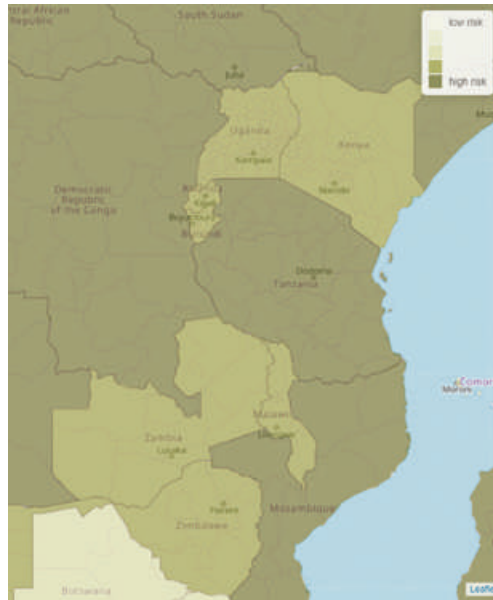


Fig. 3: EU Inform Dashboard 2020 lack of coping capacity index, subcategory on physical infrastructure, access to healthcare and communication

2000). As for the remaining ice fields and snow cover, they are likely to disappear for the first time in 11,000 years (Aguilar and Rogers, 2013, p. 14)¹⁰.

Just like in other countries and regions, the land-use changes for agriculture and urbanization have had a substantial impact on the destruction of forests and other ecosystems. Grasslands (40 % of the land area) and woodlands or forests (50 % of the land areas) embed a rich biodiversity, are hosts to resources and play extremely important eco-systemic services. *“The current clearing of land for agricultural use, shifting, slash and burn cultivation, and harvesting fuel wood for cooking may have further impacts on the reduction of forests and the destruction of ecosystems.”* (Aguilar and Rogers, 2013). The question of deforestation in relation with awareness will be elaborated in the next book’s article (Chapter Bushesha, Gaborit)

¹⁰ The National Strategy on Gender and Climate change p 14

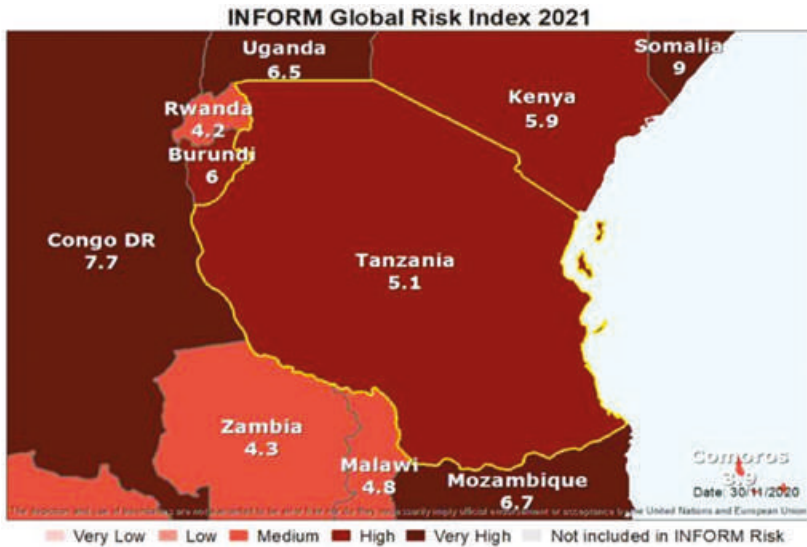


Fig. 4: EU INFORM global risk index



Fig. 5: Flight view of the snow cap from Kilimanjaro in 2018
Source anonymous tourist

1.2.2 Low GHG Emitter But an Overreliance on Vulnerable Resources

Tanzania's GHG emissions were only accounting for 0.59 % of the world's total emissions in 2014 (USAID, 2014)¹¹. But despite this low contribution to the world's GHG emissions, the country's GHG emissions profile is inherently linked to the country's vulnerability profile. We indeed argue in this chapter that, as an additional inequality, the costs of environmental degradation are higher in countries like Tanzania than in richer countries. Most of the emissions indeed come from the conversion of the land forests to burn biomass, as well as from the clearing of land from agriculture¹² (Schaafsma, 2013). The changes in land use also lead to deforestation, bush and forest fires, therefore increasing vulnerabilities (John and Kabote, 2017). The dependence on charcoal and on foreign imports for energy contributes to both the country's GHG profile as well as its vulnerability profile. Indeed, a substantial part of deforestation is the direct result of the collection of wood fuel (Schaafsma et al., 2013; Burgess et al., 2017; Rosa et al., 2018). Although the low productivity of the agricultural sector is highlighted by several reports (Bishagazi, 2020), the GHG emissions linked to agriculture have increased by 65 % from 1990 to 2014. This is mainly caused by an increase in livestock, whose grazing impacts land use. Tanzania's energy emissions also increased by 171 % between 1990 and 2014 (USAID, 2014). This is the result of biomass combustion, fuel combustion and transportation. Transportation indeed also has an increasing impact on the emissions of GHG at the national level: *“Due to rapid urbanization, limited investment, and lack of modernized planning, much of Tanzania's infrastructure¹³ has aged (...), and the low quantity of community roads in good condition, contribute to higher congestion, and vehicle emissions (ADB, 2013).”* Here again, the GHG emissions create areas of vulnerability in terms of air pollution, congestion and dependence on resilient infrastructure.

Climate adaptation and disaster strategy, but also climate mitigation were integrated into the country's policies and programs. For instance, in its INDC (Intended Nationally Determined Contribution) in 2018,

¹¹ However, between 1990 and 2014, the GHG emissions have increased by 3 % (USAID, 2014). The GHG emissions/GDP still would represent eleven times the world's average.

¹² It is however difficult to know what % relates from the energy needs, and what % from the clearing of land for agriculture.

¹³ Referring to roads and large scale infrastructures.

the government envisioned to “*embark on a climate-resilient development pathway, that will reduce the emissions by 10 % to 20 % by 2030 relative to the projected 2030 business as usual development*”. The main governmental priorities were identified as livestock, forestry, transportation, waste, coastal management, marine environment, fisheries, water and tourism.

Future Climate Projections: Projected changes by the middle of the century show that Tanzania’s exposure to climate change will be more important than the country’s contribution to climate change. Indeed, the forecasts reported by international cooperation programs (USAID, 2018) forecast an increased average annual temperature of 1.4–2.3 C°¹⁴, an increased duration of heatwaves and dry spells or droughts, an increased exposure to heavy rainfalls both in terms of frequency and intensity and a rise in sea levels of 16–42 centimetres (USAID, 2018). The current trend would also confirm the complete retreat of the Kilimanjaro’s glaciers.

1.3. The Impacts of Climate Change across Sectors

Tanzania already pays an important toll to climate change. In this subsection, we assume that climate change impacts different sectors such as agriculture, energy, cities, access to water, coastal exposed areas and public health. The most critical factors being the impacts on the agricultural sector, flooding, droughts and access to water. But the question of energy disruption and indirect impacts on public health cannot be overlooked. In this third sub section, we will therefore address the impacts on agriculture, food, energy, cities, water, coastal areas and public health. We also demonstrate that vulnerability is a vicious circle, in which the impacts of further environmental degradation will become increasingly severe over time.

Agriculture employs between 75 % and 80 % of the Tanzanians, while its contribution to the GDP is less substantial (around 23 %) ¹⁵. The impacts of climate change on agriculture could be the most visible and direct one with regard to those which are already occurring in Tanzania and other countries. Access to water is just as critical and also influences irrigation.

¹⁴ The greatest impacts would occur in the West and South West of the country.

¹⁵ Project Pilot 4 Research and Dialogue, first panel of experts, minutes.

It is expected that with the rise in temperatures, droughts will be more frequent, and crops will be exposed to more intense and heavy rains. 80 % of the agriculture comes from rainfed small holders' farms, highly vulnerable to weather changes. The production will be more prone to heatwaves, droughts but also dragging erosion and flood damages. It may also lead to more flooding (interviews) as well as increased pest diseases, salinization and inundation of coastal areas.

Food security and malnutrition: The direct impact of droughts and the decrease in agriculture yields is food security and malnutrition. A recent report (Zemoglio et al. 2019, p. 79) recalls the country's official figures (THS-MIS, 2016) that in the Mara basin 10 % of children are malnourished despite the agriculture's strong potential. This has quickly changed after the drought in 2016–2017 and will occur more frequently with the increase in climate-related disasters. The same studies showed that 19 % under five were tested positive to malaria in the region. According to figures from UNICEF in 2015, more than 2.7 million Tanzanian children under 5 years of age were estimated to be stunted and more than 600,000 were suffering from acute malnutrition, of which 100,000 were severe cases.

Disruption of energy supply: The country's orientation and equipment in terms of energy supply was initially aligned towards large hydro-power projects. The national access electricity rate in 2014 was however only 36 % and only 11 % in the rural areas (Duarte, 2015). The electricity sector was however highly vulnerable to disruption and unpredictability. Indeed, changing rainfall patterns and recent droughts have reduced the efficiency of the hydropower system. There was, for instance, a prolonged drought in 2012 which led to the disruption of the system, load shedding and use of high costs emergency energy generation systems to avoid the blackout (Winthrop et al., 2018). Blackouts had occurred several times between 2005 and 2015. As a result, the public policies and investments shifted to other energy sources, and large hydropower as a share of total capacity declined by nearly 2/3 between 2002 and 2006 (from 98 % to less than 40 %) (Duarte, 2015, p. 26).

Cities: There have been fewer studies on the impacts of climate change on Tanzanian cities (apart from the problem of water stress). It is however expected that the rapid urbanization, and the extension of large infrastructure projects, will further increase deforestation, as well as the conversion of farmland into constructed land. Large cities will also be exposed to the rise in temperatures with phenomena such as the heat

Tab. 1: Impacts of climate change

The impacts of Climate Change		
Sector	Impacts	Multipliers
<i>Agriculture</i>	Increase in exposure to droughts and heavy rains	Rain-fed agriculture is highly vulnerable to droughts.
<i>Food Security and Malnutrition</i>	Malnutrition is having repercussions on children's growth, education and health. Adults' health is also exposed to food security.	Lack of post-harvest storage facilities is increasing the lack of food availability and malnutrition. Lack of easy transport access from the farm to the consumers is exposing remote areas to food shortages. Rainfed agriculture makes food supply vulnerable to droughts.
<i>Disruption of the Energy Supply</i>	Reliance on large hydro-powered projects makes the energy supply vulnerable to droughts (reduction of the rivers' runoff).	Energy disruptions can create blackouts in cities, creating the need for costly emergency solutions.
<i>Cities</i>	Cities are exposed to water shortages, water and air pollution.	Urban expansion having impacts on land use and deforestation. Transport traffic and congestion is increasing air pollution.
<i>Access to water</i>	Water resources are endangered by droughts, while the sea level rise is also causing salinization (saltwater intrusion) of drinkable water resources.	Water shortages can negatively impact agricultural production. They can increase the burden of women in fetching water further from their households. Finally, the pollution of water is detrimental for health and leading to diseases.
<i>Coastal Areas</i>	Coastal areas are exposed to floods and sea-level rise, as well as populations' displacements.	Populations' displacement can be accelerated by soil erosion, flooding, but also the depletion of the oceans.
<i>Health</i>	Climate change increases exposure to malaria and waterborne diseases such as typhoid and cholera.	The pollution of water, and air is equally leading to premature deaths, including among younger populations and children.

Source Author



Fig. 6: Aerial view of Dar es Salaam featuring sprawl

Source Author

island effect (Rosenzweig, 2018). Most of the studies have focused on the adaptation of the largest city: Dar es Salaam. In the country's largest populated city, and third fastest-growing city in Africa, it is expected that climate change will amplify vulnerability and hamper adaptive capacity. Indeed, 80 % of residents live in spontaneous high-density settlements. Urban sprawl will amplify environmental degradation and the vulnerability to climate (Macchi et al., 2013).

Access to water is one of the main aspects of the country's vulnerability profile, despite favourable weather conditions. Some regions are exposed to water shortages or water stress both for irrigation and drinking supply. Tanzania has extensive water resources: 96 km² per year renewable (USAID, 2018, p. 3). However, arid and semi-arid land cover half of the country's surface and rainfall seasonality leads to possible water scarcity.

The major's river basins and the 3 largest lakes (Victoria, Tanganyika and Nyasa) will be more and more exposed to the increase in temperatures, dry spells and heavy rains which affect the surface and deep-water sediments.

There are also land-use conversions for both the extension of agricultural fields and quick urbanization. This land-use change, which is expected to be increased to the detriment of natural and semi-natural areas, also has repercussions on water basins.

Projections show that some of the river basins will have an increased runoff due to heavy rains with a risk of flooding, while other water basins will have a decreased runoff exposing more areas to water scarcity. The change of the river's runoff is also dependent on the management of neighbouring countries which use 13 % of Tanzania's renewable water (USAID, 2018).

In the near future, water stress may affect main cities such as Dar, Morogoro and Dodoma, indirectly affecting millions of people. Indeed, most cities rely on the provision of surface water sources, which are polluted by heavy rainfall which drains industrial, mining, commercial and household pollution into rivers, lakes and wetlands. In Dar es Salaam for instance, an increase in the city's population has led to insufficient water supply, resulting in too few accessible water resources. Private wells are available, but are unfortunately run on a commercial basis and located out of reach for part of the population. The water scarcity and overuse of wells may lead to an increase in contaminated water and related diseases (Aguilar and Rogers, 2013). It may also be important to underscore that Tanzania's urban slum population is increasing at a rate of more than 6 % per year (which is one of the highest rates in sub-Saharan Africa) (Aguilar and Rogers, 2013). Most of the informal urban dwellers do not have access to improved water sources.

In Zanzibar, the situation is also alarming, according to the UNICEF (2020), about 30 % of the population in the island has no access to piped water supply services, while less than 40 % of the piped water is pre-treated at the source, as the rapidly growing peri-urban areas are further straining inadequate infrastructures. Water stress and shortages may therefore be directly impacted by climate change.

Coastal areas: The sea-level rise is also leading to the salinization of groundwater and the reduction of access to improved water sources. Tanzania's coastline stretches for over 800 km. It spans an important shoreline and several islands, the largest one being Zanzibar. The Zanzibar archipelago is extensively covered with coral reefs, seagrass beds and mangrove forests. The stresses over the marine ecosystem and the exposure to sea-level rise and soil erosion, are therefore relevant questions. "*The coastal regions of Tanzania are experiencing problems of habitat loss, pollution and declining resources*" (IBIC, 2013). It results in a deterioration of ecosystems, depletion of fish resources and increased exposure to climate events due to soil erosion. The impacts have a detrimental effect on the local population and coastal villagers and can lead to displacements. As some reports point out, here again, environmental degradation increases the

vulnerability to climate change: “*These problems are particularly severe for coastal villagers, because they are more dependent on natural resources, and have fewer options when the local resources decline or disappear. This puts coastal villagers at risks of even greater poverty and food insecurity*” (IBIC, 2013, p. ii). This illustrates our argument that environmental degradation has a higher cost in Tanzania than in a country with a higher GDP (or a more complex economy).

Research reports and tourism providers in Zanzibar both underscore that the landscapes and seascapes have changed over the last decade because of ocean warming. This trend is increased by private investments in the seafront and increased national and international tourism. But the warming of the Indian ocean is also a global factor impacting the turbidity, the ecosystems, the different species or even the currents. Environmental protection and climate vulnerability appear again intertwined. The situation would indeed call for stronger coastal protection and a clampdown on unsustainable fishing practices while respecting and engaging with the local communities remains necessary. The protection of mangrove forests could also be an important element.

The study by Tobey et al. in 2011 in the Mlingoti village on the coastal shore, shows the difficulty to have solutions for an adaptive capacity to floods. The sea-rise has indeed caused water intrusion to rise, and an increase in health hazards for the population as well as schools in particular. The level rise has caused water to overflow and to contaminate the domestic water supply. The author notes that the adaptive capacity is “*hampered by poverty, inadequate funds, and lack of rules for effective water management increasing vulnerability*”. In addition to his, the ecosystems’ health and resilience are further jeopardized by overfishing and destructive fishing practices. This phenomenon is not only existent in Tanzania, as evidence shows that countries with a long shoreline, such as Indonesia or Caribbean islands are exposed and vulnerable to sea rise (project CRIC¹⁶ and project Life Adapt Island¹⁷ 2020). In Tanzania, the pressures on the coastal areas are increased by poverty and plastic littering along the seacoast, and by a growing population. Sea level rise,

¹⁶ www.resilient-cities.com Climate Resilient and Inclusive Cities EU funded project in Indonesia 2020–2024 in which the author is taking part.

¹⁷ [LIFE Adapt Island](http://LIFE_Adapt_Island) Project funded by the European Union on the resilient adaptation strategies in Guadeloupe, in which the author is taking part.



Fig. 7: Coastal communities in Zanzibar

Source picture Author

coastal erosion, as well as industry and domestic pollution in coastal centres are major threats to sustainable coastal development (IBIC, 2013, p. 6). These problems are exacerbated where surging tides force hundreds of people to abandon their homes, as higher sea levels threaten coastal villagers (IBIC, 2013). Flooding and saltwater intrusion have damaged property and tainted limited clean water supplies, such as the Pangani river. This phenomenon has been caused by both environmental degradations, but also “crumbling” sea defences. It shows again how both environmental degradation and adaptation to climate change are highly intertwined, while it also reinforces the need for integrated coastal management (Makoye, 2012).

Public health is also heavily impacted by climate change parameters. There are indeed assumptions as to whether the emergence of new viruses such as SARS-CoV-2 (Covid 19), is facilitated by climate change and intensive livestock. It is also admitted that higher exposure to climate hazards and impacts (e.g. on water stress and contamination) will bring an increase in fatal diarrhoea diseases and infections by malaria. According to the WHO, 93 % of the Tanzanian population is at risk of malaria. 61 % has access to improved water and only 19 % to improved sanitation. In the Mara river basin in 2016, 19 % of the children under five were tested positive for malaria (TDHS-MIS). At a national level, 14 %

of children under five were also tested positive, which was a net increase compared to 2011–2012 (TDHS-MIS, p. 50). In 2019, according to the World Health Organization and the Severe Malaria Observatory¹⁸, Tanzania is among the ten countries with the highest malaria cases and deaths (3 % of the global cases, 13.4 % of cases in East and Southern Africa and 5 % of global deaths). Despite the efforts by the Tanzania Government recognized officially by the World Health Organization in 2018¹⁹, external factors such as climate change and the change of seasonality could have a negative impact on the spread of the disease.

Projections also show a possible increase in outbreaks of waterborne diseases such as cholera and typhoid. According to UNICEF, cholera is a highly contagious disease that is caused by ingesting faecal bacteria through contaminated water or food. It causes severe diarrhoea and vomiting that leads to extreme and fatal dehydration. So far, only for Zanzibar, there have been 17 major cholera outbreaks since 1978, especially in areas with chronic shortage of water and poor access to adequate sanitation, such as peri-urban areas, within mobile fishing populations in small islets and other coastal areas²⁰. The government of Zanzibar is implementing a Comprehensive Cholera Elimination Plan (ZACCEP) which started in 2017. The ten-year program aims to eradicate transmission of cholera by 2027 by increasing safe water and improved sanitation for households and public facilities. As we have seen in the paragraph on coastal areas, the efforts could be jeopardized directly by the pollution of the freshwater sources due to climate change and sea level rise.

In 2015, mainland Tanzania equally experienced a cholera outbreak in several regions. The occurrence of such outbreaks will increase with climate change, increasing the already heavy tribute of the region.

The exposure to hazards confirms that several areas in the country will be directly exposed to climate-related hazards, including coastal areas, rural areas and urban areas. The question of resilience and possible solutions to cope with climate-related hazards in the country, are limited due to the unpredictability of extreme weather events, including droughts. Vulnerability was defined earlier in this chapter as “the degree to which a

¹⁸ [Tanzania | Severe Malaria Observatory.](#)

¹⁹ [WHO recognizes national efforts towards Malaria elimination | WHO | Regional Office for Africa.](#)

²⁰ [A village leader's action | UNICEF United Republic of Tanzania.](#)

human or a natural system is susceptible to, or unable to cope with adverse effects of climate change” (IPCC, 2014; Tobey et al. 2011, p. 2). According to this definition, some regions could be categorized as extremely vulnerable. The impacts of climate change are already occurring.

The causes of climate change are global, and Tanzania’s GHG emissions profile ranks the country as a low emitter... But the country still has a strong connection between environmental degradation, climate mitigation and adaptation. The environmental degradation clearly reduces the adaptive capacity to climate change by the removal of natural buffers (forests, mangroves), the depletion of resources and the perturbation of microclimatic areas or ecosystems. It also causes soil erosion, water pollution and water stress. Environmental degradation also has a strong socio-economic impact, as many people depend on natural resources (agriculture, fisheries and burning wood fuel). This part certainly confirms our fears that vulnerability is a vicious circle in Tanzania as in other countries sensitive to climate change, and that the impacts of environmental degradation will intensify over time, especially as the population is growing and will increasingly rely on limited resources.

The review of the vulnerability profile, however, shows that resilience “or the capacity to cope with stress and hazards” is already occurring. There is indeed an existing ability to cope with the current impacts of climate change both at the eco-systemic and at the community levels. That could be encouraging if the impacts of climate change would remain stable (and not worsen).

2. Climate Change Resilience Factors/Elements and Preparedness to Address Climate Change Risks

Embracing all the resilience factors for climate adaptation may be difficult, as both research and practice are constantly evolving. Practitioners are mainly acting by trial and errors. Moreover, the context and repercussions are evolving quicker than their dedicated research. There are several factors and sectors that can directly or indirectly impact a more resilient adaptation to climate change.

Resilience can be identified through the protection of ecosystems such as forests (chapter Bushesha and Gaborit, 2021), but also through the adaptive capacity of the infrastructure, policies communities and human settlements to be prepared and adapt to the variability of the climate-induced parameters

(water, weather, temperatures, sediments, erosion etc.). This part is divided into 2 main parts: 2.1. *The factors of resilience and preparedness across different sectors* (energy, resources, ecosystems as buffers, tourism and wildlife conservation, agriculture, deforestation and resilient infrastructure) and 2.2. *The socio economic and governance factors* (the importance of women, youth, and participatory action/inclusion).

The identified sectors are indeed considered as having a strong leverage effect towards climate adaptation as they are not only vulnerable to climate change but also present an important potential for change or transformation (energy, infrastructure, cities, coastal areas). This second part will end with the socioeconomic factors such as the inclusion and participatory approaches for women or youth which appear as a necessity but will also be addressed in their complexity.

2.1. Factors of Resilience and Preparedness by Sectors

The identified factors which will be addressed in this sub-section are the following: energy, resources, ecosystems as buffers, tourism and wildlife conservation, agriculture, deforestation and resilient infrastructure.

Energy is a strategic sector. Access to modern energy services is vital to health centres, schools, just as much as it is to agricultural production and households (especially for women). Although Tanzania's current per capita electricity consumption is 104.79 kWh (2014) demand is increasing rapidly (Duarte, 2015). The national electricity access rate in 2018 was around 36 %. It had more than doubled since 2010:²¹ But in 2014 this access rate was only 11 % in rural areas (Duarte, 2015). There are important risks of disruption to generation due to the increasing unpredictability of hydropower. Indeed, rainfall patterns and droughts in recent years have reduced long hydropower output.

Looking at the production, 40 % of the electricity supply comes from hydropower, but only 4.9 % is currently generated from (non-hydro) renewable energies (Duarte, 2015). The hydropower capacity will be vulnerable and exposed to evaporation, and siltation, but also to heavy rainfalls, longer dry spells, flooding, landslides and the rivers' management from neighbouring countries. A drought period in 2012 was indeed an example of power disruption across the country. The

²¹ [Tanzania Electricity Access 1992–2021 | MacroTrends.](#)

country's vastness, coupled with low population density makes the grid extension too expensive for remote areas, although there could be an important market potential for off-grid electrification schemes of small power producers, and independent power producers. There are different objectives mentioned in the Power System Master Plan (PSMP) and the 2015 National Energy Plan. One of them is to provide access to energy to another 250,000 people each year. The government has indeed undertaken a reform of the energy sector to boost the electricity supply. Several organizations have been set up such as the Rural Energy Agency (REA), the Rural Energy Fund (REF) and the utilities regulatory authority EWURA. According to the 2016 Power System Master Plan (PSMP), and to compensate for the unpredictability of hydro projects, future energy needs will be met by coal (41 %), large hydro projects (35 %), oil and gas (21 %). Despite their high potential, only 3 % of renewable energies were considered in the PSMP (Garcia et al., 2017), but they already reach 4.9 % today.

The national grid has expanded very fast, but the coverage only reaches village centres, and not the households or farms. The capacity and tariff caps set by the government on producers and operators are insufficiently profitable (TAREA). However, the independent power producers and the small power producers, have become key economic players in less than a decade (Garcia et al., 2017), which would explain the expansion of renewable energies. In addition to this, various NGOs and international development programs promote renewable energy development, and there is an inclusive consortium of development partners who are supporting the development of renewable energies in Tanzania. In particular, solar energy is increasingly developed in Sub-Saharan Africa, and some countries such as Botswana and Namibia are currently investing in large scale solar-powered plants (Burger, 2021)²².

A resilient infrastructure, together with more renewable and decentralized energy production (mini-grids, and off-grid systems), would be key in strengthening the resilience of the country's power infrastructure by creating a more adaptive system able to cover a vast territory. The advantage of investing in renewables would also be to reduce the current transmission costs (from major gas and coal areas in the Northern parts

²² [Namibia Sets a Foundation for Sustainable Solar, Renewable Energy and Socioeconomic Development \(solarmagazine.com\)](https://www.solarmagazine.com).

of the country located far away from the demand), to more Southern and remote areas. Mini-grids and solar off grids options could be more cost-effective to serve half of the rural population. Indeed, the country overflows with abundant renewable resources that could play a significant role in meeting its energy needs. But specialized reports also mention that a series of constraints must be addressed for the country to fully exploit its potential (data, planning, regulation, increased dialogue between the different stakeholders, knowledge and capacity building) (Garcia et al., 2017).

The development of resilient, sustainable, and reliable energy systems could increase the protection of forests and biomass, while providing further development for the country. According to 2014 figures, only 10 % of the households in Tanzania were directly connected to the electricity's main grid, and only 1 % can use electricity for cooking (Garcia et al., 2017). It leads to challenges for cooking, but also for charging mobile phones, powering a fridge or for food storage and conservation. Teske et al. confirm this in their 2017 report: "The poverty is at the highest levels, where there is no energy infrastructure" (Teske et al., 2017, p. 43). However, the poor spend over 35 % of their income on energy but will opt for cheap biomass solutions. Even in cities, the electrification is not extremely developed with high discrepancies among cities 59 % in Dar, 11 % in Arusha, and 5 % in Mwanza (Garcia et al., 2017, p. 5). This confirms the vast potential of renewable energy. Renewables achieved a global market share of over 50 % of all new built power plants since 2014J (Teske et al., 2017, p. 43).

Decreasing dependency on fossil fuels? Energy security could also be a factor for further resilience, as the dependence on other countries may reinforce the country's vulnerability to economic shocks and climate change. Tanzania is indeed mainly dependent on imports for fossil fuels, and for electric supply. Only for the year 2014–2015, the country imported a total of 4.6 billion litres of petroleum products (Tanzania Invest, 2016). Tanzania also imports about 16 MW of power from Kenya, Uganda and Zambia (Duarte, 2015. p. 26). This represents a heavy burden for the country's socio-economic development and energy plans. Increasing dependency on fossil fuels is causing "fuel price shocks, inflation and is hindering the government's efforts to expand energy access due to limited resources" (Garcia, 2017, p. 16).

Boosting ecosystems as buffers: The United Republic of Tanzania is home to significant ecosystems and biodiversity. From coral reefs to the wildlife reserves of the Gorongoro, Selous, Ruaha and Serengeti parks, to the highest point in Africa on Mount Kilimanjaro. The threats to the ecosystems encompass land conversion, deforestation and unsustainable fishing practices. As described in the first part, the increase in the ocean temperature and the sea-level rise, as well as saline intrusions are putting pressure on the mangrove forests and on the coral reefs who play an important role in climate adaptation. Four million people are employed by the fisheries sector in Tanzania (IBIC 2013). The sector is also affected by ocean acidification, the changes in the ecosystems with a proliferation of invasive species and the depletion of fishes. Climate change and unsustainable fishing practices are not a problem inherent to Tanzania, but they put at risk an important part of the coastal communities who are relying on fishing as a main resource for living (IBIC, 2013). Therefore, this is important to have important and inclusive actions to improve the local adaptive capacity and the knowledge about climate adaptation, to reduce the exposure and to increase the capacity of response of the coastal villagers. The preservation of resources, the protection of marine resources and corals, and the restoration of mangrove forests can increase the resilience and be an important path towards sustainability. Several conservation livelihoods programs were implemented but proved insufficient to substantially reduce exposure to risks. Zanzibar has a solid potential to increase resilience with nature-based and community-based solutions. It possesses an abundant marine ecosystem, coral reefs, seagrass beds and mangrove forests. The Menai Bay Conservation Area (MBCA) set up in the 1990s is the largest conservation area in Zanzibar and is managed by local communities and the government (Zeppel, 2011). This program, supported by the WWF and international donors, has been successfully engaging fishers and village communities in the conservation of resources and wildlife. It shows that there is a strong potential to develop microeconomic resilient models to climate change.

Tourism as a chance for wildlife conservation: Tanzania is home to several wildlife natural parks. In 2019, there were 1.5 million international visitors in Tanzania (Bishagazi, 2021, based on NBS figures). The development of tourism has triggered international attention to protect wildlife tourism and help the country protect threatened species,

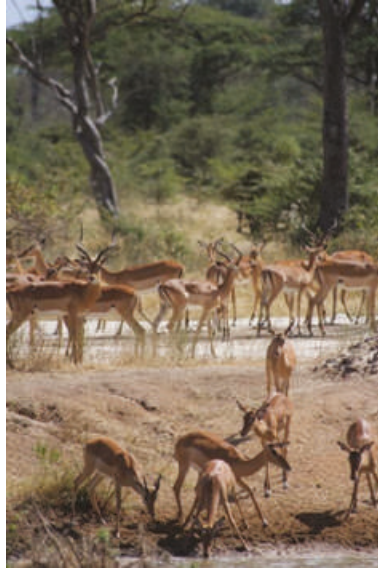


Fig. 8: Wildlife in the Selous game reserve 2017

Source Picture Author

including elephants, turtles or dolphins. Progress has been important in working with rangers against poachers (IBIC, 2013) and coastal communities against harming fishing practices (Zeppel, 2011). Before the pandemic, it accounted for around 20 % of foreign earnings (Garcia et al., 2017) but the pandemic has shown that the sector remains vulnerable not only in Tanzania but worldwide. The current situation with the travel restrictions makes it currently difficult for those earning their living from this sector.

Ecotourism can also be a leverage for further resilient development. A case study in the Usambara mountains from the Cultural Magamba Tourism centres reports that customers and tourists have deserted the centre since February 2020. Some women could, however, invest in vegetable gardens while waiting for the centre to reopen its doors. Many tourism and centres have indeed been closed, but the resilience of the sector could benefit from chances to connect tourism, employment, the protection of vital ecosystems, and engagement with the local communities.

A climate-sensitive agriculture: a real technology uptake is essential to increase the yields in agriculture, reduce poverty but also make it climate-resilient, with more systematic weather forecasts and the possible use of digital technologies such as sensors. The current pandemic as well as climate change, may have a detrimental impact on food security (Introduction chapter). This may be caused not only by the impacts of droughts, rains on the crops, or by a lack of soil fertility, but also by the lack of logistical capacities to preserve and store the post-harvest food production. Women in this framework could become a significant factor for change. There is indeed a gender imbalance in the workload for food production. Women may have less access to technologies, credits and education (Aguilar and Rogers, 2013, p. 24). Despite this, there are difficulties in making the technology choices clear for small farm holders, who are also restricted by financial constraints, and difficulties in accessing credits. However, there are several options studied to make the sector more resilient to climate change. In particular, “*moving from rainfall agriculture to irrigation agriculture could be a real boost for the economy and the employment*” (Teske et al., 2017, p. 8).

Deforestation: It is a key element in creating resilience for climate change, as deforestation is an accelerator of climate change, but also decreases the capacity to adapt to future repercussions. Forests indeed have a direct impact in keeping temperature lower, and in rain patterns linked to fog and evaporation. Households mainly rely on biomass energy (wood in rural areas and charcoal in cities) to meet their cooking needs (Schaafsma et al., 2013). In 2009, biomass represented 88.6 % of the country total energy consumption (Garcia et al., 2017). The incomplete combustion of fuelwood in traditional stoves results in indoor air pollution and leads to subsequent respiratory diseases which affect disproportionately women and children. Consequently, the loss of forest cover directly linked to charcoal production, with nearly a million-ton consumed annually is estimated at 100,000–125,000 ha (Duarte, 2015). Additionally, the charcoal production is estimated to emit 20–50 million of GHG annually and combust 30 million cubic meters of wood (Garcia et al., 2017, p. 28). In order to better protect forests, a strong community awareness is required (chapter Bushesha and Gaborit, 2021).

Resilient infrastructure: It is a key element in fighting against climate disasters, not only in Sub-Saharan countries but also in large European

cities where several projects are implemented to make the infrastructure more resilient to climate events. Although the world news focused on Mozambique's flooding in January 2020, Tanzania remains one of the most flood-prone countries in East-Africa. Floods have a direct impact on infrastructure, energy, water and transportation. Between 2014 and 2017, floods have affected critical infrastructure from the coast to the highlands. They have damaged roads, buildings and bridges. The current investments in infrastructure (Bishagazi, 2021), which incurred a large part of public expenditures, could eventually be assessed on their capacity to be resilient to heavy rains, floods and droughts. A series of constraints were identified by several research reports ordered by international organizations (Duarte, 2015; Garcia et al., 2017; Teske et al., 2017). They include the description of several barriers for the countries to fully exploit its potential (in terms of the development of renewable energy and electrification). The identified difficulties encompass the access to data, planning, regulation, dialogue with the different stakeholders and a lack of knowledge and capacity. This has also been observed in the exchanges of the project Pilot 4 Research and Dialogue²³. In one of the expert panels, organized during the project²⁴, the experts have indeed noticed a limited available expertise in undertaking feasibility studies and difficulties in accessing informed data. Factors of success for the completion or not of large infrastructure projects were equally reported as difficult to analyse.

Tab. 2 below summarizes the Identified Sectors for transformation – and Resilience factors

²³ www.pilot4dialogue.com

²⁴ Online Panel of Experts, December 2020.

Tab. 2: Table identified sectors for transformation – resilience factors

Sector	Justification	Potential impacts on risks and decreasing vulnerabilities	Potential for change	Elements of complexity
Energy	Disruptions to hydropower due to climate change. GHG impacts of households relying on the use of biomass.	A decentralized system of renewable energy could decrease vulnerabilities.	Alternative systems of energy such as solar off-grid systems can be developed	Initial investment Technology development and uptake Difficulties in scaling up Community involvement
Reduce dependency on fossil fuels	Fossil fuels are overused in comparison to existing resources. They contribute to 89 % of CO2 emissions (Clientearth.org) and air pollution (our worldindata.org)	The imports of fossil fuels make the country vulnerable to neighbouring countries and market prices.	Non-fossil fuel-based solutions such as solar energy represent a potential	Long/short term economic interests Initial investment Technology development and uptake Difficulties in scaling up Communities involvement
Ecosystems as buffers	Ecosystems provide services to food production, but also for the regeneration of resources (e.g. soil nutrients). They equally play a role in climate adaptation by being carbon sinks, and by creating buffers against erosion.	The destruction of ecosystems such as forests or corals is endangering the food supply chain. Deforestation is causing soil erosion and rain loss. The loss of ecosystems is also putting health at risk (increase in malaria cases).	Restoration and protection of ecosystems are a potential for transformation. Transformation of waste (e.g. Plastics) into material as well as energy, and Circular economy	Awareness-raising Community involvement Food needs (fisheries, hunting, livestock) lead to the destruction of ecosystems the destruction of ecosystems economic needs. Urban expansion also impacts the destruction of ecosystems.

Continued

Tab. 2: Continued

Sector	Justification	Potential impacts on risks and decreasing vulnerabilities	Potential for change	Elements of complexity
<i>Tourism and wildlife conservation</i>	<p>There were 1.5 million visitors in Tanzania in 2019 which can have both negative impacts on climate (transportation, use of plastics, constructions, destruction of corals) and a positive impact on wildlife conservation (as a contribution to wildlife conservation)</p> <p>According to Zeppel H. (2011), world tourism is responsible for 16 % of global GHG emissions.</p>	<p>Tourism is vulnerable to economic shocks (Covid) It can impact natural resources and ecosystems (e.g. corals in coastal areas). It generates GHG emissions.</p>	<p>Eco-tourism is well spread over the country, by engaging tourists in wildlife conservation (through feeds or donations) and in working with communities.</p>	<p>Short/ Long term economic interests Community engagement Repartition of wealth and benefits</p>
<i>Climate Sensitive Agriculture</i>	<p>Rainfed agriculture is extremely sensitive to climate change and regular droughts.</p> <p>Agriculture employs almost 70 % of the population. Irrigation pumps, when used, are mainly fuel-powered.</p>	<p>Disruption in agriculture and crops has a direct impact on food security and on malnutrition.</p>	<p>Solar irrigation pumps and digital technologies could support a transformation in the sector. Technological uptake to increase yields. Refrigeration and storage of harvests.</p>	<p>Awareness-raising Community involvement Food needs (fisheries, hunting, livestock) lead to the destruction of ecosystems as well as energy, and economic needs. Urban expansion also impacts the destruction of ecosystems. Repartition of benefits.</p>

Deforestation and burn of biomass

The loss of forest cover directly linked to charcoal production (a million ton consumed annually) for instance in cooking stoves is estimated to be between 100,000 and 125,000 ha.

The protection of forests, and reforestation would ensure the protection of carbon sinks, climate settings (rain, gaze, humidity) and enhance the conservation of resources. The burn of biomass is also leading to indoor air pollution and respiratory diseases.

Potential of solar based off-grid and grid connected systems. Access to energy would decrease the use of biomass.

Adaptation of households' kitchen settings to make it compatible (with e.g. solar energy).
Communities' engagement including women
Initial investments
Planning in rural livelihoods.

Resilient infrastructure

Resilient infrastructure is a broader term which covers flood and drought resilient infrastructure.

The current investments in infrastructure is an opportunity to develop flood and drought resilient infrastructures.

Investment costs are high
Relies on public investment.
Risk occurrence is unknown.

Source Author

2.2. Socio-economic and Governance-Related Factors

Research on the impacts of climate change should include socio-economic and governance-related factors. The correlation between the impacts of climate change and poverty is an important element to consider. However, the study of these factors is dependent on sociological, economic, gender normed and cultural elements, which can differ from one country, region or village to another. Therefore, our aim here is not to address all the specificities, but rather to identify shortly in which socio-economic and governance factors can enhance resilience. This sub-section will address complex issues such as women engagement and empowerment, governance in the water sector, youth and education as strengths and participatory engagement or dialogue.

Women exposure and potential for resilience. The role of women in resilience is more extensively described in the third part of the book. For climate adaptation, their key role is increasingly recognized by both international organizations and governments. Development reports mention that women's situation can be critical in accessing resources such as water and that the situation could worsen with climate change. In rural areas, for instance, women and children can spend several hours per day collecting water, while sanitation services remain limited. As a result, they are also more exposed to water-related and water-borne diseases: "*Women in both urban and rural areas suffer the biggest burden when there is insufficient water supply or when water is of inferior quality*" (Aguila and Rogers, 2013, p. 39). Women indeed are disproportionately responsible for household fuel and water collection, food preparation and agriculture (Duarte, 2015). Several reports emphasize the importance of women's engagement and empowerment to create more resilience to climate change and other disasters (Aguilar and Rogers, 2013). Several projects have emphasized that one of the success factors of current nature conservation and adaptation projects were women's empowerment. In these projects women's empowerment represented an important push factor for resilience (Tobey et al. 2011; IBIC, 2013). In Zanzibar and in the Northern areas of Tanzania mainland, women have been empowered through conservation, livelihood and entrepreneurship programs linked to the protection of the areas.

Governance in the water sector: Water stress is among the most important sectors of concern and is further affected by a number of non-climate stresses such as poor management or inadequate infrastructure. As

climate change impacts may worsen the current trend, the development of more resilient systems of governance will have a substantial impact on further resilience (Fundi, 2021). Access to safe water is, however, essential in addressing poverty and health problems. The poor, most of whom live in Tanzania's rural areas, have limited access to : clean water, for domestic use, to crop production and adequate sanitation. This part will be further elaborated in the chapter drafted by Saida Fundi (Fundi, 2021).

The strength of youth and education: Youth communities are hit by climate change. At the same time, they represent an important strength for future adaptive capacity (Africa Europe Foundation). The importance of young people, and the increasing access to education represent essential elements for resilience to climate change in Tanzania, as young people represent an important work force to develop the adaptive capacity of the country. In Tanzania, 45 % of the population is below the age of 15, and the population is expected to reach 87.2 million by 2030 (World Bank, 2016). 800,000 young people enter the labour force every year, and represent newcomers on the employment market. They are undoubtedly a great potential for a greener economy. Education has been a priority and a success in Tanzania, with an enrolment rate in primary schools of 94 % compared to only 59 % in 2000. Net secondary enrolment has expanded quickly, going from only 6 % in 2001 to over 30 % in 2011 (Garcia et al., 2017, p. 3). To reach this, the government has abolished fees for primary schools in 2001, and the ones for secondary education in 2015. This is in line with the SDG 4 to ensure that “*all girls and boys complete free equitable and quality education*”. Nevertheless, there are still barriers to the development of research and highly specialized education institutions.

Participatory engagement and dialogue: Alerting the population about the negative impacts of climate change, and informing them on the potential high value of the protection of the ecosystems is among the main recommendations for resilience (chapter Bushesha, Gaborit 2021). Research shows that despite the obstacles for carrying out a successful outreach process towards different communities, populations and stakeholders, the absence of a consistent engagement process has many higher costs and consequences. For instance, it can result in the development of inappropriate solutions, increased conflicts and social tensions, absence of a shared vision for the future, “rebound effect” (whereby appropriate solutions are not appropriately used due to lack of community awareness), and ultimately in a lack of preparedness and resilience (Raven et al., 2018). The process can

often be disorganized as each group pursues different goals and interests, but an engagement process with multi-stakeholders' participation and partnerships could better ensure the sustained, inclusive, and meaningful transformation of actions, policies or practices (Kloprogge and Van Der Sluijs, 2006). But engagement and awareness-raising also need clarity, simple, clear and comprehensive resources that would be made available to the public. It is not always possible to reach that clarity in a complex sector such as climate change or the environment, where there are certainties and unpredictability (e.g. on the occurrence of climate-related events). *“Even if decision-makers are actively seeking to develop genuine engagement and partnerships with stakeholders, an abundance of confusing and contradictory resources can serve as a barrier to engagement”* (Raven et al., 2018, p. 165). The private sector and citizens must be provided clear and easy steps on how best to contribute to developing solutions for climate and for the environment, but they often feel unarmed when faced with questions like climate or energy transitions (Friends of Europe debate series, October 2020). Some authors also emphasize the pitfalls of environmental communication, which may simplify the situations to serve the interest of some stakeholders, or which may bring wrong messages (Brulle, 2010). Still, the lack of any environmental message may bring even more detrimental results, unawareness of the risks and of the solution, or even justify a state of denial. It is also a matter of social justice that the vulnerable groups, including people living below the poverty line, are engaged in the decision-making process.

It is equally important to make sure that not only “big polluter” companies are associated in the dialogue process, but that SMEs and micro-enterprises involved in climate mitigation, adaptation or SDGs related implementation plans, can also raise their voices to elaborate solutions (e.g. TAREA The Tanzania Renewable Energy Association). Strong mechanisms need to be implemented.

Sustained and consistent stakeholders' participation can rule out disagreements earlier in time, provide the opportunity to work through different scenarios and lead to more shared visions. A concrete example could be, as Harris notes, that it is impossible to achieve resilience goals at all scales for all communities and for all sectors for instance water, energy, food and carbon (Harris, 2017). Still, a strong multi-stakeholders' engagement will at least reduce the risks of negative collateral impacts. The right solutions, however, need to break down institutional and

disciplinary silos. The project Pilot 4 Research and Dialogue²⁵ had a similar objective to bring comprehensive research, dialogue and engagement.

Multi-stakeholder engagement, fostering resilience and preparedness: The dynamic and variable conditions that climate change introduces call for a consistent stakeholders' engagement process to help ensure that integrated mitigation and adaptation responses are not simply implemented as one-off and discrete protection measures, but as adjusted and fitted to the community's needs. Indeed, "although, physical interventions often protect from one single hazard or risk, one can assume that communities increase their capacity to prepare for, to withstand, and to recover from a wider range of related disasters (not just one single hazard), and to face everyday challenges, that integrate health, income, and equity considerations" (Raven et al., 2018, p. 165). Engagement is also a path to seek legitimacy. As Harris notes, "*As research and negotiation are conducted behind closed doors, the general public's confidence in scientific, technical and administrative expertise is destined to be low. Without more inclusive processes and lasting mechanisms of social learning and public involvement, even scientific findings, however accurate, fail to gain social legitimacy*" (Harris, 2017, p. 6). There is also a need to make any resilience actions fit more adequately with local realities, values, and norms, and this can be achieved only through a true and solid local multi-stakeholders' engagement. For instance, in the national disaster policy, schools are reported to be an important relay for engagement for more awareness-raising and better disaster responses.

Engagement with the private sector is equally important. Indeed, the private sector is often at the origin of pollution (e.g. plastic production, fossil fuel-related investments) and is at the forefront of eco-innovation systems. Examples include water-related investments, renewable energy and smart solutions. For instance, the SME EcoAct Tanzania (www.eco-act.co.tz) has been developing a circular system to transform plastic into construction material since 2011, a system which would benefit a lot from up-scaling. These innovative solutions are often more successful when they are inspired by communities (e.g. for the adoption of the best community-based systems for renewable energy). But communication and awareness-raising are needed, where the beneficiaries are treated as

²⁵ www.pilot4dialogue.com

actors involved in a mutual dialogue, rather than only targets of partial messages led by the interests of some stakeholders.

Several programs were implemented in Tanzania such as the NAPA (National Adaptation Program of Action), or the landscape forum and other international conservation projects. However, these programs were not fully implemented, and some constraints were identified such as the lack of funding, population growth, non-implementation of land-use plans and of community awareness on the importance of forests. Several authors, as well as the project Pilot 4 Research and Dialogue have emphasized “*the limited coordination and connectivity between the different sectors and the stakeholders hinders the engagement of civil society, academia, investors and the private sector*” (Teske et al., 2017, p. 24). The project Best Dialogue had shed the light on the lack of trust between the Tanzanian government and the private sector.

Contrary to this, efficient mechanisms were put in place to counter disasters, including climate change, such as the Tanzania Disaster Relief Committee TANDREC, created in the 1990s. These mechanisms could be replicated (Teske et al., 2017, p. 38). The main function of TANDREC has indeed been to oversee and coordinate governmental activities, secure effective prevention of disasters, preparedness and options of affairs in the event of a disaster. Therefore, there is not only a need to raise awareness among the different communities but also to increase trust and confidence, as well as to capitalize on pioneering local initiatives for climate-sensitive solutions which are currently mushrooming throughout the country.

This sub-section is summarized in Tab. 3 below:

Tab. 3: Socio economic factors of resilience

Factors	Potential for Resilience	Complexities/Difficulties
<i>Women's engagement and empowerment</i>	Can benefit from clean water investment programs, decrease of indoor pollution, and adaptation to climate change Empowering women can lead to positive impact on conservation programs and climate-related programs	Gender-related approach Community engagement, Empowerment Access to education Poverty Access to formal market economy and entrepreneurship Public awareness
<i>Shared governance in the water sector</i>	Clean Water Program Better access to water for irrigation and food security	Reliance on institutional schemes Divergence of interests
<i>Youth and education as strengths</i>	Capacity for development potential for investment, education, awareness-raising	Access to employment Opportunities Awareness-raising Access to education, information and resources
<i>Participatory engagement or dialogue</i>	Increases the positive impacts Necessity in any transformation, change of development Innovation from private local initiatives	Awareness Information Forums and availability for dialogue Initial investment and up-scaling

Source Author

3. Conclusion

Severe weather events such as droughts, floods and storms have already imposed costs in Sub-Saharan countries and in some parts of Tanzania. There is strong empirical evidence of the country's vulnerability to the increase in temperatures and extreme weather events such as droughts, heavy rains and floods. Some climate-induced changes have already begun. Future forecasts and projections could threaten the current positive development pathway. Tanzania's contribution to the world's emissions is only 0.59 %, which equally triggers the question of climate justice. This chapter definitely calls for more global coordinated solutions across borders and silos. Part I of the chapter approaches vulnerability and shows that it creates a vicious circle. The impacts of environmental degradation (deforestation, soil erosion, ocean depletion, water pollution) will indeed become increasingly severe over time.

Resilience patterns are already occurring as demonstrated in part II. The room for adaptive capacity, preparedness and participatory solutions is important.

Furthermore, multi-sectoral research is needed to bridge the gaps. For instance, there is a strong link between climate vulnerability and poverty. 85 % of poor people live in rural areas and rely on rainfed agriculture, which is prone to climate disasters such as droughts and floods, water scarcity for irrigation, and is equally affected by a lack of market access, insurance and credits.

Research on climate change itself and, on its impacts, is critically needed and urgent to reduce uncertainties and increase preparedness. It is difficult to evaluate the exact impacts of climate change, as the consequences add up to existing parameters such as a growing population and the decrease of resources. “*Climate is already changing beyond the realm of recent history and will continue to change*” (Zemoglio et al. 2019)²⁶.

A single approach would probably be reductive as it is complex to predict exactly the occurrence and intensity of extreme weather events, making it important to opt for “no regret” solutions. Social, economic, governance and cultural parameters are equally important to foster resilience and adopt participatory policies and mechanisms. Like in many other countries, it will be essential to build solid collective solutions encompassing sectors and jurisdictions to accelerate the resilience factors across different climate and environmental risks. Building on pioneering, transformative local initiatives and enhancing participatory approaches in policies, can boost the transition and lead to a path towards sustainability.

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²⁶ p. 48.

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Chapter 6

Forests' Management and Protection in Tanzania: Challenges and Reality

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1. Introduction

The globe's climate is changing and seriously impacting human systems (IPCC, 2018). Africa is one of the most hit continents in the world, partly because most economies in the continent depend on rain-fed agriculture. One way of addressing climate change is mitigation. Climate change mitigation entails avoiding or minimizing GreenHouse Gases (GHGs) in the atmosphere. Forests play an important role in minimizing GHGs in the atmosphere as they make a good carbon sink; they tap carbon dioxide (one of the GHGs) from the atmosphere for photosynthesis. Forest development is therefore crucial for climate change mitigation. However, forests also provide a wide range of goods and services; they are, for example, a major source of timber and other construction materials. In developing countries, forests are a source of a range of non timber products which are important for livelihoods ranging from roots and tubers, wild edibles and fruits, honey, medicinal plants and bush meat. Unfortunately, in the course of harnessing the goods and services they offer, forests are overutilized and hence subject to degradation. Furthermore, forests are vulnerable to climate change particularly to extreme and prolonged dry weather. Extreme and prolonged dry weather usually aggravate wildfires which are disastrous to the forests' development. As such, striking a balance between nurturing, maintaining, protecting and conserving forests for climate change mitigation on one hand and harnessing the range of resources which are offered by forests on the other, needs clear understanding among stakeholders of these intertwined forests' roles and functions.

Tanzania experiences a temperature rise and a decrease in precipitation (Wilkinson and Peters, 2015). It is projected that, by 2100, Tanzania will experience a temperature increase of up to 2.2°C, (Agrawala et al., 2003) a situation which will likely lead to severe crop failures and acute food shortage, hunger and famine in the country. Agriculture is the major livelihood option for over 70 % of the Tanzanian population residing in rural areas (URT, 2016), climate change adaptation is therefore extremely important. The country has approximately 39.9 % forest cover (Schaafsma, 2013); if well maintained, this is an enormous resource which can make a good carbon sink. However, most communities living adjacent to forests in Tanzania depend much on forestry resources for livelihood. Consequently, forests in Tanzania are subjected to degradation due to overuse and exploitation. A large share of the total energy in the country, for example, is derived directly from biomass, a large part of which is wood. This wood is largely collected from local forests, oftentimes illegally (Milledge, 2007; Crook, 2020).

This situation is complicated by the fact that many communities have Participatory Forest Management Agreements, where they are given exclusive rights to certain resources within a neighbouring forest, oftentimes including dead wood, in exchange for helping in management and protection. These agreements, though enacted with good intentions, give villagers access to neighbouring forests where instead of following rules, villagers often cut wood for their daily cooking needs.

As a result, the country has an annual deforestation rate of about 1 %, around 400,000 hectares, which is twice the world rate of 0.5 % per year. One may hypothesize the reason why local people violate the conditions given under participatory forest management agreements to be a lack of clear understanding of the forests' function on the environment for people's well-being including the roles played by forests on climate change mitigation. Between 1990 and 2010, Tanzania has lost 19.4 % of its forested land, or around 8 million hectares. Despite a relatively high amount of forest stands, there is very little remaining primary forest in the country and the high deforestation rate will quickly lead to widespread clearings (Project Gaia, 2015; FAO, 2020). The deforestation trend in Tanzania suggests that there is a serious shrink of the natural carbon sink in the country jeopardizing climate change mitigation and adaptation efforts.

This chapter argues that community awareness on conservation, development, and a sustainable use of forest resources is key to sustainable forest management. There are many theories about awareness (Sayers, 2006), participatory management and civic engagement which are defined in the previous chapter on climate, and take stock of grassroot initiatives and bottom up approaches. When community members are aware of the importance of keeping forests from the different forms of vulnerability, chances of expanding these natural carbon sinks for climate change mitigation do increase. The chapter will be structured in three distinctive parts: (I) The challenges of Forest Protection in Tanzania, (II) Current Developments and Programs as well as their background and analysis, (III) Further Discussions Points.

2. The Challenges of Forest Protection in Tanzania

Tanzania has 48 million ha of forested land, which is over 50 % of the total land area of the country (TFS, 2015)¹. According to Rosa et al. (2018), there are five types of different forests or biomes in Tanzania, namely mangroves, flooded grassland and savannas, mountain grassland and savannas, tropical and subtropical grassland, savannas and shrubland, as well as tropical and subtropical moist broadleaf forests.

¹ The National Forest Resources Monitoring and Assessment (NAFORMA) of Tanzania mainland was conducted over a five-year period (2009–2014) by the Tanzania Forest Services (TFS) Agency under the Ministry of Natural Resources and Tourism (MNRT) with technical support from the Food and Agriculture Organization (FAO) of the United Nations and co-funding from the Finnish and Tanzania Governments. This was the first forest inventory carried out across the whole of Tanzania mainland. The FAO-FIN programme logic is that *“timely, relevant and reliable information on the state, extent and uses of the forest resources allows for informed decision making and development of relevant policies and programmes with the ultimate goal of achieving a more sustainable forest management”*. The FAO-FIN Programme therefore, provided technical support as shown in Fig. 2.

Tab. 1: Growing stocks and areas of forest and woodlands in Tanzania

	NAFORMA figures
Growing stock (forest and woodlands)	2,831 mill m ³
Growing stock (other wooded land)	140 mill m ³
Total area of forest and woodlands	48,090,700 ha
Average growing stock (woodlands)	55.1 m ³ /ha
Average growing stock (shrubs and thickets)	21.8 m ³ /ha
Average growing stock (natural forest, excl. mangroves)	125.1 m ³ /ha
Average growing stock (Mangroves)	48.8 m ³ /ha
Total annual loss of forest and woodlands **	372,871 ha

Source: TFS 2015

Tanzania ranks 4th in terms of forest cover when compared to other African countries, but the fight against deforestation has been recognized as a priority as early as in the 1990s.

2.1. Deforestation and Forest Degradation: Overview and Factors

Forest cover within Tanzania has indeed been reduced at a rate of 469,000 ha per annum, which results from heavy pressure from agricultural expansion, livestock grazing, wildfires, over-exploitation and unsustainable utilization of wood resources and other human activities mainly in unreserved forests (FAO, 2020; Crook, 2020). Further studies (Rosa et al., 2018) show that, from 2000 to 2014, approximately 6 % of Tanzania forests and woodlands were either lost or degraded. By contrast, forest cover regenerated or increased by only 0.7 %, representing nine times more loss than gain over this time period. The 2020 FAO global forests assessment report for the country shows as in the diagram below, that the trend of deforestation is increasing, despite the current policies and initiatives.

Deforestation seems especially important for the forests in Southern Tanzania, with some 'heavily degraded areas' (Crook, 2020; Milledge et al., 2007). Deforestation and forest degradation in Tanzania, present a high vulnerability exposure both in terms of carbon sinks and climate change, but also because they are homes to many species and wildlife, and

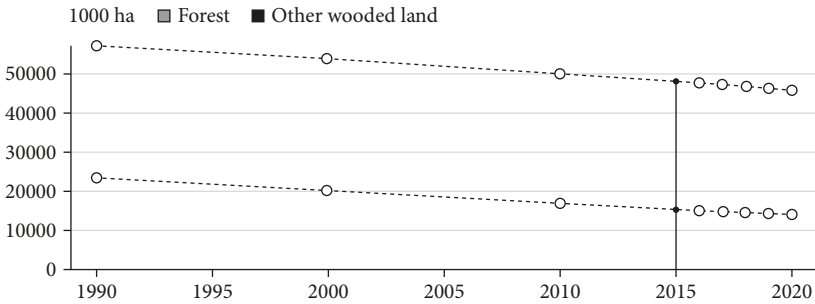


Fig. 1: Evolution of the forests and other wooded land between 1990 and 2020

Source FAO 2020

therefore very relevant with endemic plant species. The United Republic of Tanzania (hereafter Tanzania) contains six out of the 25 global diversity hotspots, which have however been under anthropogenic pressure over the last couple of decades (Rosa et al., 2018).

An important factor of deforestation may be the legal and illegal trade of timber: According to the UN Comtrade (2012), quoted by EC (2014), Tanzania’s trade in wood-based products has been increasing and timber exports increased from 511 m³ in 2001 to 310,600 m³ in 2007.

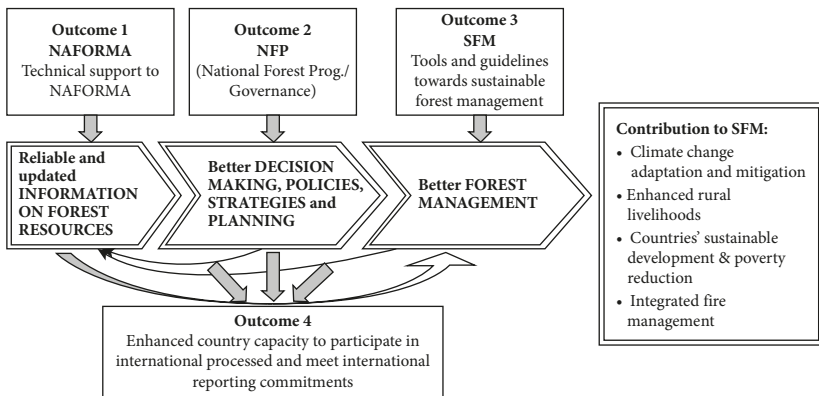


Fig. 2: NAFORMA program

Source TFS 2015

While exports in value to China decreased after a peak in 2007, exports in value to India have been more important since then. Exports to Kenya also represent an interesting part of the exports volume. On the contrary, for paper products, Tanzania relies on imports both from Europe and South Africa.

The first challenge is to look at wood and timber as a commodity and trade product. Although the timber trade would represent a revenue only for less than 2 % of the households (Schaafsma et al., 2013), it is still an important element of the country’s trade balance². Different studies show that, while the exports to China peaked in 2007, India and Kenya have become the main importers of Tanzanian timber. According to the table below, the volume of exports has increased enormously since 2009. This may be an ecological concern, especially that it does not take into account unregistered illegal loggings and exports, and that according to Milledge in 2007, most of the timber exports are not submitted to tax because of corruption, bribery or lack of surveillance (Milledge et al., 2007; Crook, 2020).

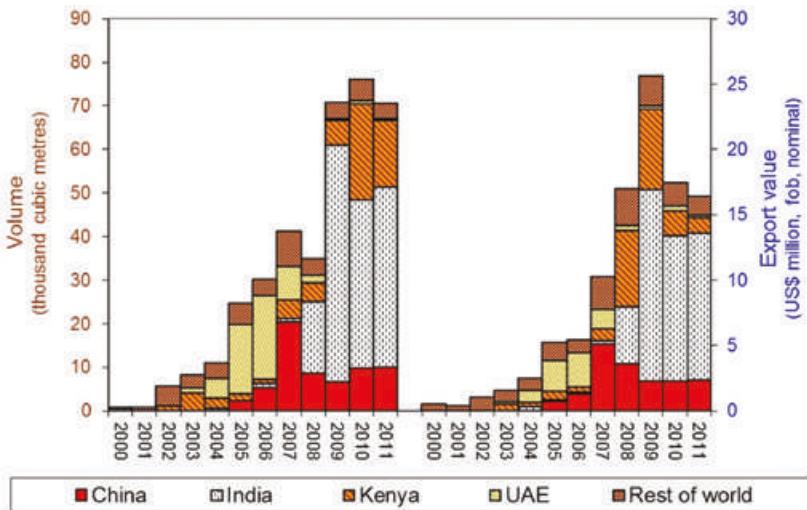


Fig. 3: Volume of wood traded from Tanzania Source UN Com trade 2012, quoted in EC 2014

² On the contrary, paper products are mainly imported from Europe and South Africa.

The second challenge and most important one, is the forest as a source of subsistence for the population in terms of revenue, of energy and raw materials. Forests in Tanzania are not vast areas of 'empty land'. On the contrary, they play a fundamental role for local communities. As approximately 70 % of the population lives in rural areas, dependent on small farm subsistence agriculture, wood is considered as the main source of energy for rural households, while the charcoal (also contributing to forest loss), is mainly exported to large urban centres. 75 % of the households in Dar es Salaam indeed commonly use charcoal (Schaafsma et al., 2013). 'Firewood is collected by most of the households themselves but only 2 % of the households sells it onwards (...) Substitution to alternative energy sources or more fuel-efficient stoves is still very limited' (Schaafsma et al., 2013).

On the top of energy needs, wood is also used as an important construction material in the construction of houses, as more than 60 % of houses are built with poles. 6 % of the households sell poles to their neighbors, but this figure is currently decreasing due to the deforestation of surrounding areas (Schaafsma et al., 2013). The use of brick walls has been developing as an alternative to poles, but as bricks are dried using firewood, increasing brick use does not impact positively the availability of deadwood for firewood consumption (Schaafsma et al., 2013).

In addition to this, the forests represent the main income for 13 % of the households, should it be timber or the collection of non-timber forest products (Schaafsma et al. 2013). The opening of new land to agriculture in 2009c with the 'Kilimo Kwanza' strategy aimed at modernizing agricultural techniques, as well as the growing urbanization of urban centres such as Dar also impacted land-use and forest degradation (Rosa, 2018).

This shows that the protection of the forests is a key element for the livelihood and well-being of many rural households in Tanzania. This situation should theoretically lead to an increased awareness on the challenges and needs related to deforestation and forest degradation. However, further research shows that there is currently no real alternative for households than to rely on the forest for their short-term survival and needs. This illustrates the difficulty in striking the right balance between ecological protection and social or participatory involvement (Crook, 2020).

3. Current Programs, Developments and Evaluations

This part will quickly go through the national program developments and available assessments in the literature. It will address the REDD+ international initiative and arising questions for the communities involvement and awareness in its second part.

3.1. The National Programs, Developments and Evaluations

Tanzania has one of the most advanced legal and policy frameworks concerning the management and ownerships of forests by rural communities in Africa (Rosa, 2018). The National Forestry Policy adopted in 1998, in particular, pushed for a change in the way that forests are managed, while the stated mission of Tanzania's forest service is to "sustainably manage" the National forest and bee resources in order to contribute to the social, economic, ecological and cultural needs of present and future generations. This was followed by the 2002 Forest Act, which introduced the "participatory forest management" in which communities could own and manage (or co-manage) their own forest areas. The Participatory Forest Management (PFM) aims to improve (1) forest quality and sustainability, (2) the livelihood of those of rely on these forests, by increasing revenues and contributing to their subsistence, and (3) forest governance, focusing on accountable forest management (Blomley et al., 2008).

The regulation of timber exports in 2004 equally marked a new era for the protection of Tanzania forests. The previous decades had, indeed, seen the depletion of many hectares of forests, because of legal and illegal loggings, mainly to feed massive exports of wood to China (Milledge et al., 2007). The Milledge Report in 2007 also explains that all legal timber activities would then pass-through Dar es Salaam to enable controls and to avoid illegal shipping by the sea. However, as often, the question of controls still makes it difficult to fight against illegal logging (or poachers), and according to several studies, the illegal logging and trade continues to be a concern (Crook, 2020). This illegal trade would even be widespread in the country (Rosa et al., 2018).

To prevent ecosystem degradation, there are seven categories of national designated areas in Tanzania (Rosa et al., 2018). Each of these areas allows different types of activities:

1. National Parks (NP) are the most protected areas,
2. Conservation Areas (CA) represented by the Ngorongoro Conservation Area including conservation, the safeguarding of interests of indigenous people and tourism,
3. Wildlife Management Areas (WMA) created since 2006 where land is set aside for the exclusive purpose of wildlife habitat, but is managed by local communities and village members,
4. Game Reserves (GR) which are areas created for hunting and tourism purposes,
5. Game Controlled areas (GCA) allowing activities such as resilience, cultivation and livestock,
6. States Forests Reserves (SFR) areas under the control of the central government but which goal is to improve the capacity of local managers, and increase the production capacity especially for wood fuel,
7. Village Forest Reserves (VFR): where the forest management is assumed by the Village leaders and by the Village Council. The government owns the land, but all profits are distributed among the community in charge of the land.

These 7 categories of designated areas covered 34.5 % of all forests and woodlands³ in Tanzania, while the remaining 65.5 % of forest areas are not protected by any management plan or protection status (Rosa et al., 2018). In their thorough analysis, Rosa, Rentsch and Hopcraft (2018) show that national parks offer the highest rate of forest protection, as they forbid any type of forest degradation and benefit from larger budgets. This enables enough controls to put them away from pressures. In their study of the overall forest loss (2001–2014), 84.9 % of it occurred in areas under no protection or management, followed by 10.6 % in State Forest Reserves and 3.3 % inside game reserves (Rosa et al., 2018). It clearly shows the importance of land-use and protected areas in the protection of forests. It equally shows that the national land-use strategies play an important role in the deforestation issue in Tanzania. Moreover, the same study underscores that in the Forest Reserves (VFR) the forest regeneration shows benefits and is a positive result of the participatory forest management strategy. This being said, even in forest reserves, forest regeneration does not compensate for forest loss. One advanced

³ For the year 2000, reported in Rosa et al. (2018).

explanation is that not enough agreements on participatory forests management were signed with local communities (Rosa et al., 2018). This indeed relates to the possible lack of awareness of local communities which is the main argument of our chapter.

Another identified factor for the continuing deforestation has been the growth of the population, and the increasing needs in terms of energy, construction, agriculture and revenue.

Finally, the question of forest fires could also be an important element to consider. Indeed, fires are used to maintain grassland and improve grazing quality for livestock (Rosa et al., 2018). Although these fires are not spreading over forest lands, they contribute to GHG emissions and forest degradation by consuming wood fuel. This again could be strongly related to the awareness of the communities. Although, as in other countries, the changing discourses on global warming, deforestation and the best certified solutions may be difficult to embed in strategies.

To conclude this paragraph, the question of land-use designation and the questions of control/enforcement would arrive as a first factor to explain ongoing deforestation, while the question of awareness would only rank as a second factor. The lack of awareness though, could explain the continuous and amplifying rate of deforestation and degradation despite inclusive policies. An advantage of information policies above (or in addition to) controls and law enforcement (for forest use) would be to ensure a needed flexibility towards communities, as so many people still rely on forests for their living.

3.1. The REDD Initiatives in Tanzania

There have been several international cooperation projects in Tanzania promoting the conservation of forests and wildlife areas (Finland, Japan and Norwegian cooperation, USAID). The most famous and most documented one is the REDD one. REDD stands for Reducing Emissions from Deforestation and Degradation. It finds its roots in the 1997 Kyoto Protocol and the UNFCCC launched later the REDD+ program. The REDD mechanism is based on community empowerment to promote the protection of forests. This mechanism provides compensation mechanisms known as ‘compensation for eco systemic services’, which benefits are distributed among the communities. The most advanced ones equally tried to develop a carbon market.

Several REDD+ initiatives were implemented on Tanzania mainland, and in Zanzibar, some of which were funded by the Norwegian cooperation. A lot of literature from the donors' countries has been criticizing the approach. We can categorize the critics into several categories. These initiatives would have underestimated power relationships among communities (Bolin, 2012; Benjaminsen, 2014). Indeed, the implementation of the program would have been felt by some community members as a "lost land" or "elite capture" of the benefits 'where certain individuals dominate committees and control revenue', and where resistance has been met (Benjaminsen, 2014 for a study on Zanzibar). Another criticism was the lack of participatory approach (Bolin, 2012), as well as social tensions or conflicts, contrary to what had been previously advocated. A convincing criticism addressed the exclusion of arguments from the local communities by the partner donors on the basis that they were too "out of scope" for the program (Bolin, 2012). But the most interesting study in relation to our chapter on the role of awareness, is the 2018 study conducted by Benjaminsen and Kaarhus in Zanzibar. It explains the program's technicalities which were difficult to explain and detail to the local population, and the difficulties to promote concepts such as 'payment for ecosystem services' or 'carbon right holders'. This led to a shift in discourses about the forest's protection by promoting different objectives and values. Other critics were expressed regarding similar projects in other parts of the world. The difficulties of the forest conservation programs in addressing the question of awareness are therefore not specific to the Tanzanian context (CIFOR, 2020).

The subsection of this chapter highlights that, participative programs have underestimated the importance of community awareness.

4. Discussion Points

Based on the examples and evaluations of the several studies on the sector, we can clearly identify several points linked to awareness (or a lack of awareness) applied to the deforestation and to the degradation of forests. The first discussion point or sector to be taken into account would be the awareness on timber products, both for the monitoring side and the people involved in the trade, so as to create the best possible conditions to allow timber trade, in the best possible respect of ecosystems, by a proper understanding of markets (EC, 2014). The fight against illegal

logging and possible briberies also would require a stronger level of generalized awareness on forest conservation.

The second discussion point would be the link between participatory forest management and effective awareness. The study by Rosa et al. (2018) clearly shows a strong potential in village forest management, if they were more developed. Against this backdrop, however, the question of reliance on wood fuel products, especially for energy and construction needs, still remains. Proper investments in renewable energies (such as solar energy) or investments in clean cooking stoves would certainly support the communities' efforts towards a more sustainable use of the forests.

It is also obvious that climate change and climate vulnerabilities create a vicious negative circle, as the destruction of forests is further impacting water resources, rivers and droughts. This generates questions about the the global community's accountability, especially in the implementation of the SDG 15 'Life on land' while we clearly see in this chapter, that 'blind' or 'biased' interventions could be problematic towards local communities, whereas support to national, regional, and local initiatives or international NGOs/networks could still be possibly efficient.

The last discussion point would be the importance of land-use. Land-use management and the designation of protection areas is a very complex issue described in studies such as (Benjamin et al., 2009; John and Kabote, 2017). Indeed, according to this study, land governance in Tanzania is carried out through both statutory and customary arrangements. This "legal dualism", existing since the colonial period and extended until now, shows the difficulty of implementation through the overlapping and duplication of activities (John and Kabote, 2017). Indeed, land-related conflicts arise, especially due to climate change and agricultural expansion (Banjamasin et al., 2009), but also because there is a need for a better capacity of the local governments to regulate conflicts (John and Kabote, 2017). There is also the need to ensure land equity, ownership and control. In all land-use changes created by urbanization or cultivations, conflicts may arise as the system is either changing or modernizing (Bracking, 2003). This makes the designation of protected areas by the national government extremely challenging. In addition to this, any change in land-use and the promotion of participatory approaches require time. Climate change and deforestation, on the contrary, call for urgent action. This shows all the challenges and limits of projects which would only rely on land designation. A better awareness and information

approach, as well as an inclusive approach against poverty, might prove useful to reach a better forest protection.

5. Conclusion

As we have seen in this chapter, there are several very important factors that explain the challenges of forest protection and forest loss in Tanzania. Although we are facing a global problem, the situation is extremely complex in countries like Tanzania, as an important part of the population depends on wood fuel – or charcoal for energy- and on wood – for revenue, cultivation, or construction purposes-. The situation is likely to have worsened in the current context, as the enforcement of forest initiatives and programs could have partly lost their impetus and support. The decrease in tourism and visits to national parks due to the COVID 19 pandemic, is also likely to impact future investments for this protection, as the source of direct revenue has also decreased. The social subsistence needs are clearly in balance with ecological challenges, while some international approaches have failed in giving clear messages on the importance of forests. Protection programs, such as REDD, combine a rhetoric of protection and ecology, promises for benefits and technical/economic jargon which is often difficult to grasp. They can also be in contradiction with other economic dynamics or based on contradictory imperatives.

Tanzania's government has invested significantly in environmental awareness creation in its efforts to ensure sustainable forest management for climate change mitigation. Environmental sensitivity in any country can only grow when the majority of its citizens are aware of the importance of forests including the many goods and services they offer to both communities and the environment. Public awareness ignites green movements among small local initiatives which later grow to become major players in advocating environmental protection to the government. Policies for better environmental preservation can prove useful if there is a sufficiently large bank of population that insist on protecting the environment and can better implement the change. From the 1980s to date, there have been various initiatives to enhance and promote public awareness and education on the importance of protecting, developing and using forest resources sustainably; these initiatives were done via different interventions by a range of stakeholders. Unfortunately, overt information on the level of public awareness on forest protection, conservation,

development and sustainable use of forest resources in the country is not systematically documented and could be the subject of further research. Understanding the level of public awareness on forest protection, conservation, development and sustainable use of forest resources is crucial for climate change policy enhancement. There is further research needed on the extent to which public awareness on forest protection, the development and a sustainable use of forest resources has been attained in Tanzania, with the aim to enhance climate change mitigation and adaptation for a long term resilience in the country.

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Chapter 7

An Account on the Resilience¹ of Tanzania's Private Sector

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THIS CHAPTER IS PUBLISHED POSTHUMOUSLY AND IS A TRIBUTE TO ONE OF THE CO-AUTHORS ALI MJELLA WHO SADLY PASSED AWAY ON FEBRUARY 12, 2021 BEFORE THE BOOK WAS PUBLISHED.

The late Mr. Reginald Mengi, founder of the IPP Company and media network, once remarked that “Ili uendeshe biashara hapa Tanzania lazima uwe kichwa ngumu.” In other words: to operate a business in Tanzania one has to be “nuts” and stubborn at the same time. This, in a nutshell, summarizes the inherent spirit of resilience of Tanzania's business community.

1. Introduction

In this chapter, we describe in a bird's view the environment in which the private sector had to deploy its activities over the decades since Tanzania's independence in 1961. We analyse the capacity of the Tanzanian private sector to meet multiple challenges and set-backs, making use of publications on the matter, but also tapping into the large repertoire of reports and other documents the production of which we oversaw during the years we managed the multi-donor basket funds BEST-AC (2004–2014) and BEST-Dialogue (2014–2019). These grant-making projects aimed at strengthening the quality and effectiveness of dialogue between the public and private sectors with the objective of improving the ease of doing business in Tanzania. As such, we tap a large swath of information and documentation directly from the production

¹ Resilience is used here in the sense of ability to resist set-backs or adversity.

floor we managed, most of which has never been published. Many reports were the product of applied science, merely aiming at informing the many public-private dialogue events these basket funds facilitated across the economy, notably in the period 2010–2019².

This wealth of information allowed us to make a coarse yet well-informed assessment of the state of the private sector in Tanzania, more specifically during the country's move from a central-plan economy to a well-regulated market economy. We could, however, not avoid identifying important factors in the business environment of Tanzania that will, no matter how resilient its private sector may be, not allow the economy to come to its full deployment. Unless addressed, these factors will likely continue to hamper start-ups in coming to fruition and to slow down the necessary income creation dynamics the country aims for in view of the huge numbers of youth entering the economy, annually.

In the first two paragraphs, we illustrate why business resilience is an aspect of relevance when looking into doing business in Tanzania. We then briefly describe in the third paragraph a major effort from the government to mitigate the many challenges in doing business in Tanzania with the so-called Business Environment Strengthening for Tanzania (BEST) program. Central in the chapter is the fourth paragraph which describes how the organized private sector engaged in the BEST program by way of evidence-based dialogues with the government. We look into the process of learning, its effectiveness as well as its limitations. In the fifth paragraph, the aspect of resilience is rated against the backdrop of the country's business environment and the above mentioned "hidden factors" before presenting the conclusions.

2. Why Resilience?

Whereas an assessment of a private sector's health tends to be expressed in productivity, market position or capitalization, for an appreciation of Tanzania's private sector one is inclined to introduce a factor such as resilience, a quality that has always been visibly strong over the years since the country's independence from colonialism. It needs to be mentioned as it is a key factor: For many years, the government's treatment of the

² See: <<http://www.best-dialogue.org>> (section D) and <<http://www.businessinsightz.org>>

private sector had not been outright friendly nor inviting. This contributed importantly to the generally already considerable burden of setting up and running a business or to the risk of investment in business. This has varied from open hostility in the years of Ujamaa socialism (1960s–1980s), to the opposite of an explicit embrace and its acknowledgement – albeit mostly rhetorical – as an engine of economic growth during the economic liberalization years of the late 1990s and early 2000s (Barkan, 1994; Gibbon, 1995; Coulson, 2013).

In the current era, relations between state and business communities are improving considerably, a genuine intention for change seems to have emerged. Nonetheless the private sector still perceives the business environment as unnecessarily “burdensome”, at times ambivalent and not always sufficiently predictable. This has continued to cause anxiety among entrepreneurs and pushes away investors. In spite of a fundamental change in the discourse about economic regulation, as is illustrated in the embracement of the *Blueprint on Regulatory Reforms to Improve the Business Environment*³, it is only recently that the introduction of new business legislation and regulation is sometimes preceded by a shared assessment of its potential economic impact, positive and/or negative.

The above-mentioned *Blueprint* is a compilation of key challenges and proposed mitigation measures for improving the business environment in Tanzania. Its weighty compilation resulted from a long extended cooperative effort between key state and non-state stakeholders that already started well before 2014. In that year, the government organized a series of thematic workshops as a first integral effort to gather, discuss and organize all information, findings and recommendations relating to the unease of doing business in Tanzania⁴. The implementation of the *Blueprint* officially started in July 2019 and is expected to gain further momentum in course of 2021.

Regulatory Impact Assessments (or Audits) drew broad attention and acclaim when Rwanda introduced it as sort of a regulatory guillotine,

³ For an integral version of *Blueprint*, see: < <https://www.mit.go.tz/uploads/files/BLUEPRINT-BOOK-compresed.pdf>>. Ministry of Industry, Trade and Investment, April 2018.

⁴ These were the so-called *Big Results Now* or BRN workshops in Kunduchi, which resulted in a first compilation of the many issues in the business environment. After the 2015 elections, the new administration set up a work force which then produced the *Blueprint* document.

abolishing any regulation possibly impeding the ease of doing business in Rwanda unless it could be proven indispensable (Jacobs and Cordova, 2013).

In Tanzania, the actual impact audit of already existing laws and regulations is still at an early stage, an incidental rather than structural practice, though the Blueprint ambition intends to take a few long strides forward.

In spite of these fairly recent positive developments, the unfriendly conduct towards the private sector during the socialism era, operating at the highest level of the nation's centrist economic policy decision-making, has had a decisive influence in inculcating negative attitudes and mindsets among Tanzanians vis-a-vis businesses in general. For a long time, this challenging environment caused the investment climate to be too unreliable for attracting substantial and well-spread foreign direct investments. Resultantly, a mix of ethical and attitudinal issues in state-business relations combined with the arbitrariness (of the interpretation) of the many business regulations and the implementation thereof had created the breeding grounds for a hard to address corruption (or, more elegantly: "vested interests") among politicians, policy makers and business tycoons at the high level, that gradually had grown and become more entrenched when the country opened up for market regulated economic policies. It simultaneously gave rise to a widespread and almost endemic rent-seeking behaviour among lower-level public servants overseeing the enforcement of the many laws and often overlapping regulations the business community had to comply with (Gray, 2013).

The resultant impact of these negative attitudes in the early decades of the nation's independence had been the emergence of a legal and regulatory framework that provided a poor or inadequate regulation and facilitation of the private sector by the government. It had long constrained the development of reliable and effectively instituted platforms for dialogue and negotiation between state and business communities. The lack of a level playing field for entrepreneurs and investors has affected the country's economic growth to its full economic potential, whose reverberations are still visibly felt to this day (Charles, 2017). Not to mention that such negative attitudes will have had a domino effect, impacting incoming new generations of public servants that had entered public service years after the country's independence and even well after the departure from the socialism experiment.

In launching the economic reforms of the 1990s, the government had realized the imperfections and inadequateness of an economic regulatory environment pitched on a socialist economic model to operate effectively in a newly introduced regulated market economy. Together with the inappropriate regulatory environment, it had realized that there was indeed a mindset problem within the civil service that was either negative or indifferent to private sector interests. Realizing the complexity of the challenge to overcome and outgrow this past, in the early 2000s the government launched a major reform initiative: the Business Environment Strengthening for Tanzania. The program resorted under the Prime Minister's Office, received support from a large group of development partners and was better known under its appealing acronym BEST⁵. We will elaborate briefly on the BEST program further below.

Moreover, to underline its determination to prioritize private sector growth and the resolution of impediments to achieve that goal, the government had launched a public-private dialogue forum, the Tanzania National Business Council (TNBC), assembling 20 representatives of both the public and private sectors, and meeting at least once a year under the chairmanship of the nation's President. The idea was to have public-private task forces established under the TNBC to study major hurdles in the investment climate or in doing business, organized per sector or sub-sector, or around topics such as tax administration, multiplicity of regulations or the issue of skills development, each feeding its recommendations for change into the deliberations of the TNBC forum. This is how it was designed, though the operationalisation had been characterized by delays, postponements and diversion from what was agreed as its operational set-up and so on.

3. The Complexity and Persistence of the Challenge to Do Business in Tanzania

Regardless of the harsh treatment during the socialism years, the government had tolerated a tiny private sector activity by the local Asian community (Coulson, 1982; Gray, 2013; Coulson, 2013). This business activism of the small Asian community, operating against the odds, had played a vital investment role in the manufacturing, transport and retail

⁵ See: < <http://www.tanzaniagateway.org/docs/BESTProgrammeSnapshot.pdf>>.

of consumer goods for the local market. The early and mid-1980s were particularly years of widespread shortage of consumer goods, being after-effects of the war with Uganda. Asian companies such as Tana Sumaia, Virani, Kiran Industries, Jandu Industries etc. had produced consumer goods such as soap, toothpaste, cooking oil, motor vehicle spare parts and other essential goods to supply the local market at the time of acute scarcity. This period was also the beginning of the emergence of a modern local African investor group that braved the harsh investment landscape to venture into businesses. Notable early African investment examples are IPP, which had produced soaps, detergents, toiletries; Kays Products for the production of sanitary pads; Mbezi Tiles producing roofing materials; Pemacco Bevi manufactured motor vehicle electrical accessories and Abdul Faraji's infant milk products. These had supplemented the Asian investments to ease the domestic supply of consumer goods. A machine tools sector also had blossomed to supply for a domestic spare parts vacuum that was created by the country's acute shortage of foreign exchange to import motor and industrial spare parts. Particularly, artisans supported by the Small Industries Development Organization (SIDO) in each region had played an important role in the supply of modified spare parts for the domestic market such as production of modified motor vehicle and tractor parts and the casting or molding of industrial parts (World Bank, 2001).

However, a majority of these businesses, together with the parastatal companies established under socialism, were either wiped out completely or faltered when the country imprudently opened up for a market economy in the 1990s, not realizing the vulnerability of its small business community due to lack of competitiveness against the imported products of large international companies that benefited from economies of scale, better access to finance, skilled labour and more advanced equipment (Gibbon, 1995). And last but not least, the country continued to suffer from what is best characterized as a wrong mind-set for facilitating market-driven economic growth.

The country's proclamation of Ujamaa socialism had produced a philosophy and economic work environment that assailed the basic tenets of capitalist free enterprise. "Ubepari ni unyama" can roughly be translated as "capitalism is barbarism". It was the rallying motto that had led the assault on free market businesses and forms of organization that incorporated elements of the spirit of free enterprise soon after the introduction of the Arusha Declaration. The phrase was produced by the ideological

department of the ruling party in the immediate aftermath of the socialism declaration and nationalizations of foreign private businesses in 1967. Usually, immediately after the evening news was a political commentary that in graphic detail broadcast a scathing criticism of capitalism as an evil enterprise of exploitation. For effective impairment to the public, the phrase and commentaries were broadcast on prime-time newscasts on national radio which was the sole means of mass communication available to the public back then. This was a huge campaign that had also led to the re-orientation of secondary school and higher education curriculum that for several years to come had governed the type and quality of leaders and public workers to be produced. This intensity of societal influencing during the late sixties and throughout the seventies must have caused the persistence of attitudes and the slow progress towards an effectively regulated market economy during the nineties and beyond. Tanzania's systemic change process may be better understood as an attitudinal rather than ideological challenge, a process of behavioural change rather than a mere redress of laws and regulatory frameworks.

These developments have had a persistent impact on Tanzania's private sector development and the development of a legislative environment and public service that introduce laws and regulate the sector in a way that allows it to flourish and become competitive. Consequently, from a private sector perspective, the spirit of collective organization and acting collectively as a group was broken, the confidence shaken and progressively eroded. Private sector resilience in the era of socialism therefore had been characterized by individual company actions rather than group actions to navigate in the prevailing unwelcoming environment to conduct business. The institutional development and role of business membership bodies remained relatively limited as invariably over the years the unwelcoming environment had negatively impacted the private sector's cognition abilities to organize itself, thus limiting collective action by the private sector in the post-socialism era (Shimwela and Olomi, 2020).

At that time the existing public servants establishment became strongly influenced against the interests of the private sector as per diktat of the political establishment. This same civil service, without any thorough preparation or orientation, continued to serve when the country switched to market economic policies in the 1990s (Mwapachu, 2005). Further, the operation of the nationalized businesses which did not embrace modern company operation principles and organization culture had incubated a cadre of managers and workers that mostly proved to

have great difficulty in adjusting to the changed mode of market economy operations. Some were then absorbed in the public services, but they were equally ill-prepared to service the private sector from their new positions.

Moreover, schools and universities/colleges had over the years produced graduates that were skeptical and approached anything “capitalistic” with suspicion. The aftermath of the Arusha Declaration that pronounced socialism as Tanzania’s governing political mode had witnessed unparalleled ideological activism. There was the introduction of haphazard agricultural cultivation in primary and secondary schools that interfered with ordinary rendering of curriculum. This was leading to a significant drop in educational standards. At the University of Dar es Salaam, then the only Tanzanian university, compulsory ideological classes for undergraduate courses that viewed or approached every social economic aspect from the point of view of “class struggle” were introduced. This spurned empiricism and assailed any attempt toward accommodation, compromise or consensus-building as “bourgeois” practices. To date, it is not quite clear the extent to which education reforms were put in place to re-orientate students for a market economy (Mwapachu, 2005, chapter 32).

The general impact of these forces over the period has been an economic malaise that has stymied the private sector’s growth, which had invariably affected and continues to affect economic growth as a whole. Throughout the country, these forces consequently have been responsible for the emergence of a complex private business-public servant symbiotic relationship, where the former is laden with guilt and the latter feels entitled for rewards whenever business facilitation services are on demand or rendered.

4. The Business Environment Strengthening for Tanzania, BEST

In the late 1990s, the government had worked on designing and introducing the Business Environment Strengthening for Tanzania, BEST, which was a tacit acknowledgement of the inappropriateness of the legal and regulatory environment for businesses in the country that was put in place in the era of the Ujamaa socialist experiment. The purpose of BEST was twofold: to reduce the burden on businesses by

eradicating as many procedural and administrative barriers as possible; and to improve the quality of services provided by the government to the private sector, including commercial dispute resolution. The BEST program was an ambitious pillar of reforms that attempted to address the chief business environment constraints to create a level playing field for businesses and to prepare the country for a major take-off with a market-driven economy.

The government demonstrated a preference for the facilitation of small business growth and prognosticated on the contradictions associated with business environment reforms and the effect this risked having on the various categories of businesses in the country. In its presentation of the BEST program, the government clearly indicated its concerns of creating a level playing field:

Faster economic growth is an essential precondition for a sustainable reduction in poverty. A more enabling environment for business is central to achieving faster economic growth. [...] The BEST Programme does not seek to make the State less important: rather, it seeks to develop a new, exciting and challenging role for Government in a liberalized market economy. However, it is particularly important that small businesses should benefit, as they have the most direct impact on employment and poverty reduction. The growth of small businesses is currently inhibited by excessive and conflicting regulation, which makes transition from the informal to the formal sector very difficult. This creates the phenomenon of the "missing middle" in which the economy includes a large number of very small businesses and a few large well-established businesses, but a dearth of the fast growing entrepreneurial businesses which are the life-blood of economic growth in many successful economies. The design of BEST reflects the range of businesses in Tanzania and the different priorities that they have for the development of the business environment. However, it has been recognized that reforming the business environment for Small and Medium sized Enterprises (SME) development can get lost among efforts to reform the environment for private sector development, that SMEs have their own reform priorities, and that in some cases, the reform process itself can result in an anti-SME bias. Therefore, special emphasis has been given to the needs of smaller businesses to enable them to make the transition to the formal sector, and to grow into Tanzania's missing middle⁶.

⁶ See: < <http://www.tanzaniagateway.org/docs/BESTProgrammeSnapshot.pdf>>.

The conception and development of the BEST program was achieved through a consensus forged by a tripartite consisting of the government, a representative mix of stakeholders of the private sector and a group of generous development partners. The program consisted of five components for which the first four were to be implemented by the government, the fifth being a private-sector-driven component. For the operation of the four government components, an executive unit was established, the Better Regulation Unit (BRU), which was overseen by an independent Board with representatives from the Prime Minister's Office, the private sector and the development partners. To ensure an optimal workflow, one observer from the 5th component attended the meetings. The 5th component, which was private-sector-driven, was operated autonomously from the government, with the oversight of an independent Board composed of members from the private sector, representatives from the Prime Minister's Office and the BRU, as well as a representative from the group of engaged development partners.

Brief resume of the five BEST components:

- (i) *Achieving Better Regulation:* focused on reducing bureaucracy and opportunities for rent seeking. A Better Regulations Unit (BRU) was established to drive the reform process with an agenda that spread across a wide range of ministries: unnecessary regulations were to be removed; ensuring business-friendly laws, regulations and administrative procedures; institutions dealing with businesses should be optimally efficient and transparent. Some of the achievements were the establishment of the Business Registration and Licensing Authority (BRELA); operational reforms of the Tanzania Revenue Authority (TRA); and improvement of operations at Dar es Salaam harbour. Also, the improvement in land registration and the reforms of labour laws have been connected with the implementation of the first component.
- (ii) *Improving Commercial Dispute Resolution:* focused on improving judicial services to the private sector, kick-started through the formation of the Commercial Court in 1999. The second component aimed to improve accessibility to the court system, both for formal and informal businesses, and the speed and quality of services provided by the court system to businesses improved. Unfortunately, commercial dispute resolution is still an arduous, costly and long experience that most small and

medium sized businesses would not want or simply cannot afford to engage in.

- (iii) *Strengthening the Tanzania Investment Centre (TIC)*: focused on increasing the number and value of local and foreign investments in Tanzania and enhanced promotion of Tanzania as an attractive investment destination. A number of measures had been introduced to make the TIC a one stop centre, facilitating investors in the country, though some of the major investment decisions still have to be made by senior public officers in the coordinating/regulating ministries, causing delays and/or red tape that the one-stop centre was designed to eliminate. After the 2020 elections, the TIC was moved upwards within the administration, directly under the wings of the President's Office, which was a significant change of position as it also became the central point for coordinating further process of the Blueprint implementation.
- (iv) *Changing the Culture of Government Servants*: focused on improved "customer service" ethos for services provided to the private sector by the public sector. Apart from some workshops and meetings, this is the only government component of BEST for which implementation had never even been attempted. Under these circumstances, this is perhaps the most important component as it aims to prepare for a broader acceptance of reform ideas among public officials and – upon agreement – expedited implementation. Its failure had important implications in the delivery of the 5th component, the BEST-Advocacy component (better known as the BEST-AC and later called BEST-Dialogue).
- (iv) *Empowering Private Sector Advocacy*: The 5th component was the advocacy and dialogue component that would be private-sector-driven, demanding the private sector to be proactive in identifying issues to do business in Tanzania. The component consisted of a grant making facility open for business membership organizations, providing financial support for the commissioning of research into business constraints in order to be prepared for dialogue and negotiations with the government for improvements on the basis of evidence. It explicitly also aimed at strengthening the negotiating power of SMEs and informal enterprises in the districts to address barriers that affected them. Further down the 5th component will be treated in more detail.

Resulting from the development and start of the BEST initiative, the investment climate was perceived as becoming more attractive and for a period of approximately 10 years starting from the year 2000, the country had benefited from a buildup of private sector investments, including a sizable influx of foreign direct investment. Nonetheless, the country's mindset problem among public servants had been deep-rooted and obstinate, refusing to go away easily. The government's implementation of the first three of the five BEST components had taken place for barely two years before gradually bogging down finally leading to suspension, which to a large extent can be attributed to dissonance about authority (notably between the Better Regulation Unit "wanting to change regulations" and the ministries "owning the regulations") and of BRU's capability of managing a complex and multi-faceted change process. The BRU felt empowered and therefore entitled to take centre stage in steering reforms by issuing implementation guidelines to ministries associated with the reforms. The ministries were of the view that reforms must originate from within and any steering from BRU was perceived as undue influence that had to be resisted. The second factor was concern coming from the development partners that BRU was implementing too many reform topics; it was considered to be beyond the capacity of the unit to successfully and efficiently implement the required reforms. The BRU leadership didn't concur with donor views. And though it looked simple to resolve, the polarized views persisted, leading to the donors cutting off support to the 4 government components when they were close to concluding the four years of implementation.

Implementation of the first three components had had a fairly good start, causing investors' optimism, but the fourth component was left untouched. Its implementation, which had aimed to address the mindset problem and adverse attitudes of public servants towards the private sector, had not even been attempted by the time of suspension.

The operation of the newly established central dialogue platform, the TNBC, also had a brief "golden age" period of about two years during which regular meetings were called and genuine public-private dialogues had taken place. But later the government once again demonstrated less enthusiasm, characterized by a reluctance to fully treat the private sector as an essential and equal partner in the development of economic policy and reform initiatives.

5. The Private Sector and the 5th Component of BEST, a Bird's Eye Perspective⁷

The advocacy and dialogue component was designed to operate as an auxiliary to the first 4 government managed components. Essentially, it was a grant-making fund and it was not intended to become a permanent entity. Its projected function in the BEST program can best be understood as that of a “trigger fund”, meaning its implementation was expected to generate more evidence-based private sector information and hence to also trigger more dynamics into the process of systemic change the country kept on struggling with⁸. Yet, the component had to be implemented against this background of vacillating attitudes towards the private sector within the government and political society. Initially the idea of public-private dialogue based on well-researched evidence had to be introduced against the then still prevailing culture of top-down decision-making that is typical for central plan economies.

In spite of an institutional history dating back to pre-independence years, most of the Tanzanian private sector organizations did not yet have the means to get properly organized, the economy being too small to allow membership contributions to provide for the necessary financial means to hire professional staff or sometimes even office space (Shimwela and Olomi, 2020). Organizations of the business sector had never received much donor attention, certainly not when compared to NGOs in sectors such as education or health. For many years, the private sector's representation in the institutional fabric of society had been a blind spot in the internationally prevailing development discourse. So the BEST initiative was fairly innovative in that it had a component that looked into strengthening this somewhat neglected category of non-state actors⁹. In Tanzania, with the exception of only a few of the stronger economic

⁷ This paragraph presents personal observations by the authors while managing the fifth component.

⁸ A large collection of documents, reports and notably also Tanzanian newspaper clippings over the period 2009–2019 can provide some insight in how the political discourse about the business environment evolved over time. It can be accessed at <<http://www.businessinsightz.org>>

⁹ With the support from a group of mostly European development partners, at the time similar initiatives were established in Ghana, Kenya, Mozambique and Nigeria as the result of a changing development paradigm.

sectors, it was indeed donor support and even government subsidy (quite remarkable, but exclusively for national and sector apex bodies) that was badly needed to help prepare these organizations for their essential role in the dialogue for systemic change. To come to the table well-prepared, credibly representative and with solid facts and figures rather than mere complaints, the private sector first had to learn how to commission research in order to substantiate their arguments and to define realistic recommendations for change. Therefore, the bulk of the support by the 5th component was spent on the process of learning and on subsidizing the substantial cost of research undertakings and dialogue meetings.

After a hesitant start in the first five years, there were genuine efforts by the business membership organizations to seize the opportunities the 5th component offered. For the final 5 years of the 15 years of its existence, the component's budget had risen to US\$ 16.3m (ex. transaction cost) from which a number of 120 research and advocacy grants had been provided to 39 business membership organizations with a total value of US\$ 6.5m. More than 160 public-private dialogue meetings took place across these final five years, most of which in Dar es Salaam, but also engaging regional and district authorities in all the regions of the country. With the assistance from the Dar es Salaam Business School, short-course education was designed and provided to more than 160 participants from the membership organizations (male-female ratio of 2:1) with topics ranging from the design and commissioning of hands-on research to the management of public-private dialogue events. Other short training courses focused on public communication strategies for sharing research findings and the outcomes of dialogue events, including a selective use of communication channels and a proper "packaging" of findings and recommendations by way of short briefs, accessible to the average layperson. To boost the capacity for applied research and data analysis, the Business School trained 90 young researchers from the Business School and from among its Hi-LINE university network, thus at the same time developing a future multidisciplinary outreach potential. In addition, the component supported the training of business journalists working for the mass media and staff of more than thirty country local radio stations to ensure a broad awareness about all activities. As a result, from 2012 onward, a steadily growing network of engaged academia and communicators started emerging around a growing group of engaged sector apex bodies, business membership organizations and Chambers of Commerce. The partnership with the network of Tanzanian universities worked as a

two-edged knife: while providing research and dialogue training as well as dialogue facilitation services, the engagement by the higher learning institutions tended to influence the contents of relevant existing student teaching curricula. It also formed an opportunity for the academia to engage in real-time issues with the business environment, at the national level and at sub-national level, drawing the academia from behind their desks to the field of action: the challenging reality of doing business in Tanzania.

However, at the time that the initial dynamics of the other four components started dwindling down and came to a close after the first five years, the 5th component had barely gained its full momentum. Definitely not designed that way, it had suddenly become a stand-alone project, though still with the support from the Prime Minister's Office and backed by a group of generous European development partners. The missed opportunity of an efficient relationship between the private sector and the Better Regulation Unit to take up valid findings and recommendations directly from the research the beneficiaries of the fifth component was paid with a high price. For many organizations access to policy makers was not obvious or effective in view of the still largely self-contained directive policy and governance environment. It could take years for an agreed change to mature, if at all, while often demanding recurrent steps to push and pull a process of change to its realization. The failed delivery of the fourth component, the mindset issue, had a very challenging additional impact. Seemingly reasonable advocacy projects could be stuck for years, for instance due to indifference or contempt, or a politically undesirable risk or potential impact on vested interests by politically powerful forces inside the ruling party or the government.

The relatively slow start of the 5th BEST component had several other reasons. Firstly, due to decades of centralist economic governance and an orchestrated aversion of business interests, the institutional development of the private sector, meaning the establishment and maturing of its organizations and networks, remained weak or quasi non-existent. In the institutional fabric of Tanzanian society the threads representing economic actors were simply missing. Economic sectors with international business relations were somewhat better organized, such as the hospitality sector and horticulture¹⁰. The network of regional Chambers of

¹⁰ Financially stronger sectors such as banking and finance, industrial mining and transport, and service industries such as telecoms and media, did not apply for financial

Commerce, a network that had resulted from an early generous donor support program in the nineties, was struggling to survive. Around the time of the start of BEST, the development partner had ended its support and by the time the fifth component gained its momentum the network of Chambers was largely dormant, only functioning to some extent in the stronger economic regions.

More importantly, the mindset problem had also afflicted the private sector itself. As a matter of fact, in some of the economic sectors it was real hard work to align private sector minds to jointly prepare and conduct reform influencing research and dialogue activities. For many years, the overwhelming majority of what could be called private sector resilience had been characterized by single, individual lobby efforts of companies and not the result of collective action. Big businesses did not see the need to belong to a private sector organization and when they joined there was very little engagement or involvement in the organization's affairs. Worst of all is the fact that such lobby arrangements undermine business environment reform efforts in a more fundamentally staggering manner. This is because the big businesses that can afford and manage to navigate their way to the upper echelons of public policy officials to settle affairs are inevitably not in favour of reforms that will create a level playing field for more businesses to enter the competition. It is profitable for them to maintain the status quo, not only because it obstructs entrance of many players to take part and hence increase the competition to become fiercer, but also because what they pay is usually just a fraction of the official cost by addressing mere individual needs of the officials, plus gains emanating from the comradeship established over a long period of mutual association between the businessman and the public official. In this context, both the big business and the senior public official will sabotage and torpedo any reform attempt from a private sector organization that threatens the continuity of a given business environment statute that generates mutual gains to the two. Thus, in this regard, both the businessman and the senior public official become a cabal that for obvious reasons is opposed to business environment reforms.

Resultantly, this often discrete practice not only undermined the private sector's perceptions on the importance of advocacy and dialogue

support from BEST. These branch organizations often had their long-established relations with the government and/or the party in power.

with the government based on analysis of the factors, but also weakened the unity and resolve to act collectively. This of course rarely leads to structural improvements. This had been the reserve of a limited number of powerful, well-endowed and well-connected companies, which thus affected the level playing field, suffocating smaller companies and making it extra hard for startup companies to enter the field of business. Obviously this affected the process of systemic change, obstructed the country's full private sector growth potential and consequently therefore the growth of its GDP.

Nonetheless, there was good progress during the first 5-year period of 2004–2009 with a growing interest and awareness around evidence-based advocacy and some of the membership organizations obtained their first successes. This is actually best illustrated by the decision, backed by the government, the development partners and the private sector itself, to continue with the independent fifth component after its first 5-year phase while the rest of the BEST program was phased out. Apparently, the private sector had shown sufficient seriousness in its engagement and also the leadership in the government had assessed and appreciated the effectiveness of proposals for change on the basis of evidence brought forward by the business membership organizations.

During the two consecutive 5-year phases of the years 2009–2019, the organized private sector showed that this was the right decision. The number of engaged economic sectors expanded, the network of Chambers became a serious up-country force for dialogue, better quality work was produced and dialogue for regulatory change had settled into the every-day political discourse. The voice of the private sector, however shaky its institutional edifice still was, had become a prominent voice in the political arena; it had started to represent a national movement for change.

But let us not overlook the major challenges that were still lingering and some of which can still seriously obstruct the way forward. Here below we will present a quick impression of the extent to which private sector membership organizations were ready to put their shoulders to the wheels of change.

The missing 4th component put the 5th component for a key decision: not addressing the issue of government culture risked making the support provided by the 5th component irrelevant in the morass of bureaucracy and foot-dragging that helped protect an undesirable and

counter-productive status-quo e.g. of indifference, political intrusion and vested interests. This challenge concerned attitudinal change, meaning one cannot merely address it via rational arguments (in neuropsychological terms: the realm of the neocortex), but it rather needs an impact at the behavioural (limbic) level. Hence the decision of BEST-Dialogue management, which was approved by its Board and readily supported by a representative cross-cut from the private sector, to start also using humour and drama for influencing rather than merely rational arguments. As Tanzanians sport a great sense of humour, cartoon contests were held for adorning documents such as the annual Business Leaders Perception Reports¹¹; radio satire series were produced, joking across the nation's airwaves about the often absurd unease of doing business in Tanzania; radio drama shows enacted the deep frustrations felt by so many entrepreneurs and farmers; interviews notably with up-country stakeholders were aired, in order to bring in the personal touch of how frustrating professional life can be for an entrepreneur, a farming family and definitely also for a simply well-intentioned local government staff member or councilor¹².

An important target in the support via local airwaves was youth, youth in business and young women entrepreneurs. Young as they may be, they will soon run tomorrow's economy, some of them becoming the politicians, decision takers or radio makers; and many of them entrepreneurs. Also, it was felt that the problem of a smooth influx of youth into the economy had not yet been addressed all that effectively, to put it mildly. But there was another major impediment to change. Good dialogue outcomes could be totally ineffective when not followed up very closely. There could be signatory delays; no enactment, no implementation or simply no effort to enforce changes in laws or regulations. So the private sector had to keep itself engaged for a longer time in a close follow up. Their research and dialogue activities had set a trail and course to take, justifying a certain pressure on the administration to respond and undertake the necessary actions for a full enactment. This formed a challenge for the organizations in terms of staffing and activity related cost, but it also pointed at serious capacity challenges within the government, notably when it comes to managing complex processes of change.

¹¹ Cf.: <<http://www.best-dialogue.org>>, section D1.

¹² Cf.: <<http://www.best-dialogue.org>>. Section E contains a full overview of all media support work.

Let there be no misunderstanding, the government's ministerial leadership and its technical staff were often more than willing to act upon recommended changes, but also they were struggling to make the apparatus they lead to work according to what had been agreed to be most beneficial for a thriving economy. Through the inclusion of the 4th component in the original design of BEST, it was clear that all stakeholders of BEST had explicitly acknowledged the existence of the mindset problem as an obstruction to business environment reforms. Despite a high profile start in 2003 with high-level attended meetings, the budget for the 4th component remained largely untouched across the five years of its dormant existence. Yet, for the success of the entire BEST program as a whole, Change of Government Culture has been a central and essential link to invigorate this ambitious business environment reform initiative.

During the first phase of implementation of the 5th component of the BEST program, the slow uptake and processing of private sector recommended changes in regulations had already exposed the importance of tackling the 4th component. Complex changes involving several ministries and agencies within the government tend to exponentially aggravate this challenge, exposing the different cultures in the various ministries to be engaged in the process of change. The so-called silo-thinking tends to be very hard to deal with unless there is a strong leadership i.e. from one of the key ministries involved in such a case – and provided that such leadership is agreed across the board and also fully accepted by the entire ministry including its various agencies. Serious efforts were made to meet this problem, but largely failed to mature into sustained practice. It was not until after the elections of 2015 that all stakeholders had to wake up to this reality with the arrival of a new administration and national leadership. The change of government culture – change across the board – had become one of its central themes.

6. Is Resilience a Characteristic of the Tanzanian Private Sector?

There is good reason to answer this question with a full-hearted “YES”! As may be concluded from the previous, it had been extremely challenging to invest and do business in Tanzania, especially for medium sized and small companies and even worse for starters. But that answer is definitely not unequivocal or unambiguous, especially when looking at

the resilience of the private sector membership organizations and quality of the institutional fabric of the Tanzanian private sector.

The 5th component was designed to create the opportunity for turn-key implementation of advocacy projects that came from the associations of the organized private sector. There was very little in terms of financial outlay that was demanded from the membership of a private sector organization once a request for support for an advocacy project was approved by the component's board. And yet, as chronicled above, there have been constraining factors that made the private sector appear less forthcoming to initiate advocacy steps. Therefore, regardless of the fact that these grants were as a matter of fact "free", some urging, nudging and coaching were required from the component's management unit to get organizations to not only submit proposals for advocacy projects, but also motivate them to invest enough time, energy and resources to pull through such projects up to conclusion.

Resilience could be illustrated by the mostly voluntary engagement of organizations, including active engagement by their respective board and (some of the) members. The more active organizations could receive tapered subsidy (gradual phasing out of subsidy over a period of four years) for investing in the cost of technical advocacy and communication specialist positions, mostly filled with relatively junior staff. Unfortunately, only few of these subsidized organizations succeeded in raising enough additional income to maintain these essential positions once the subsidy had tapered down to zero, which shows that there are clear limits to what level of (financial) engagement can be expected from an organization's membership. Voluntary engagement is actually more characteristic for private sector organizations that group micro and small businesses, underlining a determination for change among small business operators and a higher sense of purpose and urgency for the achievement of advocacy projects.

Early surveys were conducted in 2005 and 2006 to identify priorities of Tanzania's private sector organizations and these surveys had shown that these organizations initially did not prioritize advocacy and dialogue with the government. This of course does not necessarily mean that the private sector did not see any importance of advocacy and dialogue. Indeed, a more positive view emerged later after further sensitization efforts, but what it revealed was that businesses initially believed advocacy should be conducted by the individual business directly talking to officials in government, thus reaching settlement upon the compromises

worked out in such talks. The establishment of formally instituted platforms for regular dialogue is work in progress; the dialogue stakeholders still need to find common grounds across the divide between the different state and non-state operational realities, in order for such platforms to fully mature.

Another factor was that when it came to the final level of influencing, partly due to the background again, the organized private sector had been eager for a simple one-off event of dialogue and influencing, rather than doing multiple rounds of influencing work, hoping or expecting the government to pick up and carry through the reform ideas. Dialogue and influencing in Tanzania however tends to require continuous rounds of interfacing with public officials, while applying different strategies and tactics in order to keep momentum in the process of change and to ensure matters to reach and persuade the ultimate decision makers in government.

Thus, there has been better success in reform achievements via for instance the annual budget process and sectoral dialogue platforms e.g. in the tourism sector. Also, there had been significant contributions by the organized private sector in government established and supervised reform programs such as the Better Results Now and Blueprint. In this regard, Tanzania's organized private sector resilience can be described as more compatible to dialoguing in an atmosphere where there is direct or more active involvement by government or parliament and when organized in formally instituted national dialogue frameworks.

7. Conclusion

The will to work and survive among Tanzania's private sector is very strong and as such it is resilient. But just like any other sector or facet of life in the country, socio-economic movement is driven by political winds and the sign of the times. In that context, what particularly is judged to be the rules of the game is what finally governs the conduct of individuals and hence that of investors and entrepreneurs as well. This brief paper has made an effort to elaborate on this, showing in large strides the prevailing winds across the decades and how the Tanzanian private sector responded since independence.

All stakeholders appear to now agree, at the onset of the 2020's, that the private sector is the engine of growth, both in terms of GDP and in

employment creation. What lies open, yet undecided, is how to effectively and efficiently regulate the desired economic dynamics, ensuring compliance with the laws of the land, yet without stifling growth and job creation with bureaucracy or indifference. Repetitive emphasis on the importance of welcoming and productive state-business relations is absolutely essential in order to overcome the past and to discipline such relations into formal, ethical and transparent conduct. All wish to leave behind the days we needed words such as *mindset* to describe what lies at the heart of the challenges.

Looming large is the youth bulge. The nation will have to create viable economic perspectives for these upcoming generations to safeguard its outstanding and long record of political stability. The sheer size of the next generation's demand for a reasonable economic perspective, with a cohort of close to one million (!) youths from the country's schooling system (including universities and colleges) entering the economy *every year*¹³. All have the right to be, survive, dream of a future and start a family, so this really demands an all-hands-on-deck. A young Tanzanian with a smartphone at hand may indeed not opt for the readily available future of becoming a peasant farmer. With a limited number of job opportunities at hand, whether they want it or not entrepreneurship will very often remain the only option for surviving and for feeding a family. For that large group of newcomers the entry point needs to be optimal, with minimal red tape or thresholds, and with generous tax grace periods in order to give them the time to get going.

As said, Tanzania's socialism background had created an atmosphere that made it difficult to implement business environment reforms without seriously tackling mindset change. As was argued in this paper, the desired economic governance reforms tend to be of rather a technical nature, whereas the change in mentality likely lies much more in the domain of the behavioural sciences. Much progress has been made in recent years and the future looks promising. Yet, to successfully implement agreed business environment reforms, the task of mindset change will continue to demand, for years to come, the highest priority at the highest levels of government's machinery as processes of behavioural change risk to slow down rapidly when left unattended. Implementation of the Blueprint

¹³ The most recent reliable official data: Ministry of Education, Science & Technology: Education Sector Performance Report 2017/2018; National Examination Council of Tanzania

will have to take place in an environment of strong hands-on coordination, unambiguous clarity in communications, reiterative messaging and a dedicated follow-up on the basis of well-defined progress indicators – including those that look into the evolving quality of state-business relations. Such is the nature of mass behavioural change: as it was established with a strong drive and dedication, in a similar way ingrained behaviour will have to be deconstructed.

The option of establishing an ombudsman or complaints mechanism has been raised a number of times during the years when the BEST-Dialogue project was active, when endless series of complaints passed our offices, desks and screens. In many countries, such a facility operates so as to help maintain a level of efficiency and effectiveness, including the maintenance of ethical discipline in state-business relations. However, one needs to be realistic, due to the size of the nation, geographically and in population numbers, and with the risk of abuse of such mechanisms for slander and economic or political gain. Nonetheless, it can be beneficial to study such mechanisms as there may be in other emerging economies, if only to inspire the thought process of how to tackle abuse of financial and/or political power that risks corrupting the level playing field. In spite of the situation having improved importantly in a number of respects in recent years, complaints are likely still rife, on all sides, as behavioural change takes time.

It will be important to continue strengthening the institutional fabric of society by ensuring the organized business community can fully play its role through formal dialogue platforms, for instance at the sectoral level for the more technical discussions; or via the Tanzania National Business Council for overarching issues; and via dedicated parliamentary committees, for instance, for delivering inputs into the national budget deliberations and end-of-year assessments.

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Chapter 8

Civic Participation and Water Governance in the Kiroka Village of Tanzania

SAIDA S. FUNDI PHD

1. Introduction

The world has increasingly experienced deterioration in the availability of freshwater for irrigation, sanitation and hygiene purposes due to expansion in human activities and population growth (Borrett, 2020). Traditionally, the national government and its infrastructures were solely responsible for producing and providing water to meet irrigation, sanitation and hygiene needs. Capability limitations in the government have brought other actors, especially local communities, aboard. Through civic participation, local communities get the chance to influence water policies and laws as well as enhance their adaptive capacity and resilience against climatic shocks. However, civic participation still very much depends on the existing institutional frameworks. This article examines the formal and informal institutional frameworks and interfaces in terms of water governance. It highlights their role on civic participation, adaptive capacity of the small scale water users and water services delivery, at Kiroka Village in Tanzania.

1.1. Methodology

This book chapter is based on the findings from the case study of Kiroka Village in the Morogoro District of Mainland Tanzania. In-depth interviews were conducted with key informants who comprised the Chairpersons and Secretaries of the irrigators and domestic water users' Organisations in the Village selected judgmentally due to their central role in the governance of water and sanitation services in their groups. Convenience sampling was used to select members of water user groups.

A total of 40 members were selected. Of these 40 members, 20 were selected from the Kiroka Irrigators Association or in Swahili *Umoja wa Wakulima wa Umwagiliaji Kiroka* (UWAUKI), and the other 20 from the Community Based Water Supply Organisation (CBOWSO). These participants were interviewed, first individually, then in focus group discussions to validate their responses. A total of 5 FGDs, each with 8 members, was conducted. Data were interpreted and analysed based on the qualitative content analysis procedures.

2. Conceptual Frameworks

2.1. Civic Participation and Adaptive Capacity in the Water Arena

Civic participation is a foundation of adaptive capacity among smallholder water users, including irrigators. Due to various limitations, there is a likelihood that most smallholder irrigators will find it challenging to adopt the coping mechanisms against climatic, administrative and other challenges in accessing water. Civic participation provides opportunities for them to offset such limitations. In water resource management, civic participation is used to refer to public participation in water projects. This may include activities such as building physical water infrastructures in collaborative ways (Priscolli, 2004) through financial, material or labour contributions, or participation in decision-making and airing of one's opinions or concerns (Sultana, 2009).

In attempts to define civic participation, a distinction is usually made between active and passive participation as reflected in citizenship qualities shown by people. People with passive participation characters have their citizenship identities and rights qualified mainly through membership, Rivas and Robles (2016) call it *de jure citizenship*. These individuals usually participate in public affairs passively through reading political news in a newspaper, carrying out a political conversation with neighbors or friends or listening to political news etc.

In contrast, there is citizenship by involvement (*de facto citizenship*), qualified through practical or real-life experiences of communities and people in public spheres. Rivas and Robles (2016) refer to this as *substantive citizenship*. To enhance adaptive capacity and resilience against climatic shocks, the water users' substantive citizenship is crucial as it

stimulates active participation in designing and implementing decisions affecting them. Sen (2009), cited in Rivas and Robles (2016), emphasizes the ability and willingness to transform the available resources into opportunities that enhance one's adaptive capacity and resilience. Substantive citizenship is important because it enables water users to utilize the existing social capital to enhance their own adaptive and transformational capabilities in situations where they lack such capabilities (Rivas and Robles, 2016). Active participation does not occur accidentally. It evolves from enabling environments, including the institutional environments in which actors interact. In the following section, theoretical insights about institutions and their influence on water governance are provided before attempting some empirical analyses of institutional experiences.

2.2. Conceptualising Institutions

Institutions comprise the regulative, normative and cognitive frameworks (Scott, 1995) that shape behaviours. In the water arena, institutions may serve as devices for enabling or preventing active participation in water projects or free riding. The heated debate on water and other natural resources focuses on the role and nature of institutions which govern the collective action of resource users. The scholars of the classical common pool resource (CPR) believed that resource users are selfish and thus incapable of collective action without being sanctioned by formal rules from the government or market institutions (Hardin, 1968; Olson, 1965). The new institutional economics (NIE) opposed such a view and provided evidence showing how resource users can collectively contribute to resources governance. Among the prominent NIE writers dedicated to the topic of resources governance, Elinor Ostrom, in the early 1970s introduced the co-production theory, mainly highlighting citizens' capabilities and support in producing and providing public goods and services (Moretto et al., 2018). Joshi and Moore supported this view and introduced the concept of "institutionalized coproduction", which they defined as "the provision of public services (broadly defined, to include regulation) through a regular long-term relationship between state agencies and organized groups of citizens, where both make substantial resource contributions" (Joshi and Moore, 2004, p. 40) in Moretto et al. (2018, p. 426). Institutionalized co-production focuses on unconventional or "unorthodox" institutional arrangements, referred to as "smart adaptations to prevailing local circumstances" (Moretto et al., 2018,

p. 426). These are institutional arrangements where “different agencies interact with citizens and where governments play indirect, and often systemic, regulatory roles” (Moretto et al., 2018, p. 426). Co-production is one of the key approaches in civic participation which is about voting or voicing and resource contributions to achieving a common good.

Implied in the co-production theory is the notion of homogeneous actors with high commitment towards common goals. However, in water governance, such conception may be unrealistic. The critical institutional theorists introduced the concept of institutional bricolage to explain how actors hold multiple world views and interests upon which they articulate, alter and aggregate various governance rules (Cleaver, 2001). Cleaver, the pioneer of institutional bricolage, argues that rather than seeing resource users as rational actors, we should “re-conceptualize them as conscious and unconscious social agents, deeply embedded in their cultural milieu but nonetheless capable of analyzing and acting upon the circumstances that confront them” (Cleaver, 2001, p. 29). In this view, resource users are influenced by the institutional systems but are not slaves to such frameworks. Generally, the message we get here is that civic participation and the resulting impacts on adaptive capacity and resilience of water users depend on how actors respond to the existing institutional arrangements. Also, that their responses are shaped, not only by the formal and informal regulative frameworks, but also by cognitive processes. So, understanding actor-institutional dynamics is key to elaborating an institutional analysis of water-based civic activities.

3. Global Water Challenges

As pointed out by Rosegrant et al. (2002) by 2025, the global population is estimated to increase to 7.9 billion. Among them, more than 80 % will live in developing countries. Population and economic growth add to climatic challenges such as rainfall variabilities and global warming, which already have greater negative impacts on water supplies and people’s livelihoods. A good number of countries worldwide are now on the verge of water scarcity, and others will soon become water-stressed mostly due to water exploitations that supersede the replenishing capacity of the available water sources (UNICEF, 2016; Boretti, 2020).

The Africa Water Vision for 2025 indicates that about 65 % of the rural and 25 % of the urban populations do not have access to adequate water

supplies in Africa. The estimates by the International Water Management Institute (IWMI) indicated that Africa will need 29 % more irrigated land by the year 2025 to reduce poverty and meet the food demands of the growing population. The implementation of WASH programs, fulfilment of the projected irrigation demands and attainment of food security, will all be highly challenged if the current water scarcity persists or escalates. Generally, despite being well endowed with water sources such as big rivers, lakes, wetlands etc., the continent will still face water scarcity mainly caused by climatic disasters, a lack of financial resources to invest in water projects, droughts and poor governance.

Apart from such factors, Africa's water management and supply capacity is also threatened by the COVID-19 pandemic. Although a low number of cases are reported in Africa, the pandemic's surging cases in other parts will likely lead to low financial assistance to development projects, including water projects on the continent. Some people in Africa have already lost their jobs due to this disease. If more jobs are lost, most African families will slip into a state of vulnerability, which will most likely affect their capacity to buy water for sanitation and hygiene uses, let alone irrigation. The global water challenges have given rise to various national and international institutional measures some of which are explained below.

3.1. *Global Institutional Frameworks and Measures on Water and Sanitation*

Initial efforts towards promoting water supplies across the world were directed toward engineering measures implemented through government infrastructures. The deterioration of government funding, especially in less developed countries, has prompted governmental and institutional arrangements that promote the engagement of local communities and other stakeholders in water service production and provision.

The current goals regarding water are articulated in goal 6 of the SDGs 2030. The SDG 6.1 aims, by 2030, to “achieve universal and equitable access to safe and affordable drinking water for all” drawn from improved sources. Improved water sources “are those which, by nature of their design and construction, have the potential to deliver safe water” (WHO/UNICEF, 2018, p. 3). The SDG 6.2 focuses on sanitation and hygiene. It aims to achieve, also by 2030, “access to adequate and

equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations” (WHO/UNICEF, p. 3). The safely managed sanitation services mean the “unshared and improved sanitation facilities on-site with fecal wastes safely disposed of on-site or transported and treated off-site, plus a handwashing facility with soap and water” (McGranahan et al., 2016, p.15). The SDGs also call for a participatory approach in water management through the IWRM as articulated at the target 6.5 which aims by 2030, to “implement integrated water resource management at all levels, including through transboundary cooperation as appropriate”.

The water initiatives as articulated in the SDGs elaborated on the initiatives that have taken place since the adoption of the Dublin Principles at the International Conference on Water and Environment conducted in Dublin Ireland in 1992 and MDGs in the early 2000s. The Dublin Conference was attended by 500 participants from 114 countries: 38 non-governmental organizations, 14 inter-governmental organizations and 28 UN bodies and agencies (the Dublin statement report of the conference, 1992) adopted the IWRM system and provided for the establishment of participatory organs such as National Water Boards (NWB), Basin Water Boards (BWBs), Catchment Water Committees (CWCs), and Water User Associations (WUAs) to enhance people’s participation in water governance.

Before the SDGs, the UN General Assembly had adopted a resolution in July 2010 which declared water and sanitation to be a human right, (UNICEF, 2016). In addition, the WHO/UNICEF JMP has issued global guidelines for WASH in Schools and Health Care Facilities (WHO/UNICEF, 2016, 2018). Since global institutional measures, various challenges and achievements were recorded in both the WASH and irrigation sectors.

3.2. Achievements and Challenges

As a result of different global and national efforts, some achievements were actually recorded in irrigation and WASH services. Billions of people worldwide generally have access to improved water sources and sanitation services which has helped improve hygiene practices. Indeed, records have shown an increase in the number of people worldwide using improved drinking water sources: from 2.4 billion in 1970 to 6.2 billion

in 2012. The existing records also show that more than half of the world population now gets water from a piped source. The number of people having access to basic sanitation has also risen from 1.3 in 1970 to 4.4 billion in 2012 (Bartram et al., 2014). Irrigation activities have expanded and economic gains from agriculture have increased in different areas (URT, 2002).

Although remarkable achievements were recorded from various institutional measures, many countries worldwide have failed to meet the international standards on WASH and irrigation. There is generally still a big proportion of the world's population living without access to even basic water, sanitation and hygiene services. Especially in Sub-Saharan Africa and other poor countries, despite the adoption of various institutional guidelines and the recognition that such services are official human rights. In addition, irrigation services have also been lacking due to the application of inferior technologies and inappropriate farming practices.

4. Water Challenges and Governance Institutions in Tanzania

Tanzania, like other African countries, experiences positive and negative trends in terms of irrigation and WASH services. The Tanzania Baseline Paper, cited in FAO (2014), shows that the country is highly vulnerable to climate change. As a result of climatic variability, various parts of the country face weather extremes such as droughts and floods, which in most cases fuel water scarcity and vulnerability.

The country is estimated to have 89 cubic kilometers or 2,700 cubic meters of renewable freshwater resources per capita per year (World Resources 2000–2001) in URT (2002). Projections showed that the country's population will increase from the estimated 33 million in the year 2001 to about 59.8 million people by the year 2025, thus reducing the available annual average water per capita by 45 % to about 1,500 cubic meters per person per year (URT, 2002). By this trend, the country will cross the 1,700 cubic meters per person per year, below which the country becomes water-stressed. In addition, disparities persist between urban and rural areas in Tanzania and between rich regions such as Dar es Salaam, Kilimanjaro or Mbeya and poor regions like Rukwa, Ruvuma and Kigoma regarding the WASH services (World Bank, 2018). The country also faces low irrigation efficiency ranging between 10 and 15 %,

poor domestic water quality and water loss estimated at 52 % of produced water (URT, 2002). Such challenges contribute to the scarcity experienced by many throughout the country.

The first institutional measures on water started in 1971 when the Twenty (20) years water supply program was launched to ensure the supply of safe and clean water in all rural populations within a distance of 400 meters from each household. Later on, the government enacted the Water Utilisation Control and Regulation Act, No. 42 of 1974 to cement water governance efforts. Despite various efforts, the national goal of ensuring water access within 400 meters of each household could not be achieved. As pointed by Mwaka et al., (1999) by the end of the program in 1991, less than 50 % of the rural population had access to safe water. In 1991, the first water policy was adopted. Although the policy recognized people as key actors, its implementation strategy mentioned the central government as the “sole investor, implementer and manager” of the water-related projects all over the country (URT, 2002, p. 5). To enhance participatory governance, Tanzania’s government adopted the new national water policy (NAWAPO) in 2002 and subsequently the Water Resource Management Act, No. 11 of 2009.

Changes in water resources governance went hand-in-hand with the improvement of the irrigation sector, through the adoption of the National Irrigation Master Plan of 2002 and the Irrigation Policy Draft in 2009, as well as the National Irrigation Act No. of 2013, in which the Irrigators Organisations were officially recognized. More recently, in 2018, the new National Irrigation Master Plan was adopted. This framework also stresses the importance of irrigators to organize themselves in registered groups. The institutional measures on irrigation also aimed to address the effects of climatic changes and rainfall variability, as well as enhance peoples’ adaptive capacity and resilience (Pardoe et al., 2018).

As for WASH services, early measures were implemented through what was called the *person is health* in Swahili *Mtu ni Afya* campaign (Thomas et al., 2013). In 1997, Tanzania adopted its first national environmental policy with a greater focus on improving the supply of clean and safe water for sanitation and hygiene purposes, among others. The focus on safe water, sanitation and hygiene services was also highlighted by the National Water Policy (NAWAPO). To promote community participation in water provision, sanitation and hygiene services, the Water Supply and Sanitation Act was adopted in 2009. Under this Act,

community water organizations only played an advisory role. To give more say to community organizations, the Water Supply and Sanitation Act No.5 was enacted in 2019. Part VII of this law provides for the establishment of community-based water supply organizations (CBWSO) and Rural Water Supply and Sanitation Agency (RUWASSA) to address water supply and sanitation issues in rural areas. Despite existing efforts, water and sanitation services sadly did not meet the promising standards set throughout the country. The focus is now on enhancing the role of communities to enable them to contribute effectively to achieving the planned water and sanitation goals. However, as the next section will show, the existing structural arrangements are in dire need of some improvements to make the country achieve the delivery of sustainable water services, especially in rural areas where water is intensively used for agricultural productions.

4.1. Structural Arrangement for Tanzania's Water Governance

In Tanzania, water governance is conducted through the Water Resource Management, Rural Water Supply and Sanitation and Urban Water Supply and Sewerage sub-sectors (URT, 2002). The focus of this section, as illustrated in Fig. 1, is on the structural arrangements for Water Resource.

The Water Resource Management sub-sector manages the overall waters in the country through the nine water basins established under the 1981 Water Act amendments gazetted in 1989, by the Minister responsible for Water Affairs (USAID, 2008). The Urban Water Supply and Sewerage sub-sector deals with domestic water and sewerage services in urban areas and is managed by the Urban Water Supply and Sewerage Authorities (UWSSA).

The Rural Water Supply and Sanitation sub-sector manages the domestic water supply and sanitation services in rural areas, through the Rural Water Supply and Sanitation Agency (RUWASSA). The agencies operating in the three water sub-sectors cited above are autonomous entities accountable to the Ministry of Water (MoW).

The governance of rural water supply and sanitation services starts at the Ministry of Water and is delegated down to the Board of RUWASSA, Director General RUWASSA then to RUWASSA Regional Manager, who

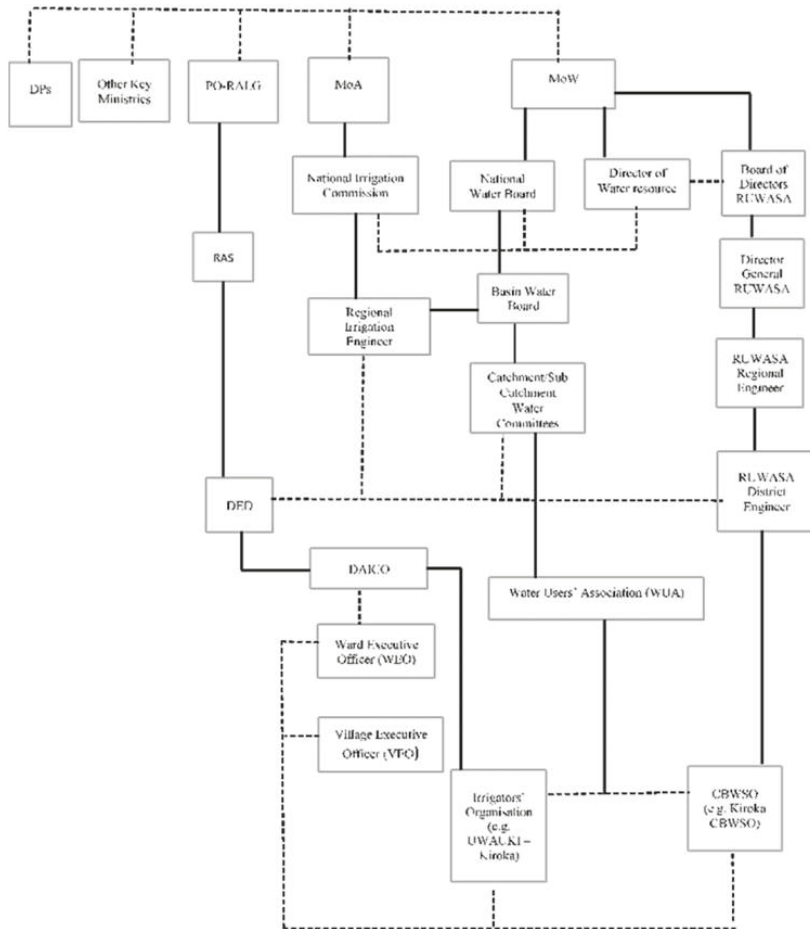


Figure 1. Structural Arrangement for Governance of Irrigation and Domestic Water in Rural Tanzania
 Source: NAWAPO, 2002; Act No. 11 of 2009 and Act No. 5 of 2019

Key
 — Reporting Relationship
 - - - - - Advisory/Functional Relationship

Fig. 1: Structural arrangement for governance of irrigation and domestic water in rural Tanzania

Source: NAWAPO, 2002; Act No. 11 of 2009 and Act No. 5 of 2019

also passes the directives down to the RUWASSA District Manager. The Community Based Water Supply Organisations (CBWSO), established by the Water Supply and Sanitation Act No.5 of 2019, formerly known as the Community Owned Water Supply Organisation (COWSO), established by the Water Supply and Sanitation Act No.12 of 2009, which is now repealed, operates at the community level.

Apart from the Ministry of Water, governance of domestic water, sanitation and sewerage services is also influenced by other Ministries, Agencies and Independent Departments notably the Ministry of Energy and Minerals which regulate water charges through its agency called the Energy and Water Utilities Regulation Agency (EWURA), the Vice Presidents' Office through the Division of Environment (VPO-DoE), Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC) which manages WASH services in hospitals, health care facilities and dispensaries and Ministry of Education, Science and Technology (MoEST) which oversees water and sanitation services in schools. The Regional and District Commissioners also play a role in domestic water service governance as the overseer of all government affairs in their areas of jurisdiction. The local government authorities were also involved in governance of domestic water. However, the Act. No. 5 has excluded them from water governance activities and handed their responsibilities over to RUWASSA. This arrangement has created parallel governance structures, which as the case study of Kiroka will show in the following section, have some implications on participatory water governance in local areas.

Besides sewerage and domestic uses such as cooking, drinking and sanitation, water is also used for irrigation. In addition to the Ministry of Water, which operates through the National Water Board and the Directorate of Water Resources (Water Resource Management Act, 2009), other ministries also have great influence on irrigation water governance. These ministries include; the Ministry of President Office, Local Government and Regional Administration (PO-RALG) through the Sector Coordination Division, the Vice Presidents' Office through the Division of Environment (VPO-DoE) and the Ministry of Agriculture (MoA) through the National Irrigation Commission (NiRC).

Generally, the structure for the governance of irrigation water is divided into three channels, from the national to the community level. The first channel operates through the sub-sector of water resource management starting at the Ministry of Water, down to the hydrologically delineated

Basin Water Boards, Catchment Water Committees, Sub Catchment Water Committees, and finally the Water Users Associations or Irrigators Groups. The second channel starts at the Ministry of Agriculture through the National Irrigation Commission down to the Regional Irrigation Engineers (RIEs). This path does not connect with the irrigators groups in local areas although logically, the Ministry of Agriculture is supposed to be the caretaker of all the country's irrigation activities. This is due to the absence of institutions at the community, district and regional levels connecting the Ministry with the irrigators. The third channel shifts from the Ministry of the President Office, Local Government and Regional Administration (PO-RALG) to the Regional Administrative Secretaries (RAS). Below the Regional level, is the district level whose responsibility lies with the District Executive Director, who delegates to the District Agricultural, Irrigation and Cooperative Officer (DAICO). The DAICO delegates the responsibility to the officer responsible for irrigation management in the district. The RIEs and DAICOs have informational or advisory relationships with each other and the Basin Water Officer, on various issues affecting water in irrigation activities conducted in the region and districts respectively. District Commissioners also play a role in irrigation water service governance as the overseers of all government affairs in their own areas of jurisdiction.

The responsible organs below the district level are the Irrigators Organisations (IOs). According to the National Water Policy, the IOs are supposed to join other water users groups to form an umbrella organisation called the WUA, which connects them with the Catchment Water Committees, Basin Water Boards then the Ministry of Water. So, apart from the DAICO, the Irrigators Organisations (IOs) are also supposed to report to the Water User Associations (WUAs). In addition, the (IOs) are also required to report to the Village Government, mostly for information sharing or referring to unsolved water use conflicts.

As the structural arrangements explained above indicate, in Tanzania, the domestic and irrigation water resources are governed through multiple institutions. To enhance services, these institutions need effective coordination to enable the sharing of information as well as the harmonisation of various issues related to water resource management. However, reality indicates structural disintegrations contrary to the IWRM system advocated in the National Water Policy.

Structural disintegration has some negative repercussions in water services delivery in both domestic and irrigation sectors. Among the side

effects, stated in the Kiroka Case Study, as the next section will show, is the lack of responsibility among the concerned government authorities and low response against the water supply challenges, leaving the water users with no choice but to develop innovative coping strategies on a trial and error basis. To enhance water service delivery and meet the SDG No.6, the country needs to establish effective coordination through the creation of interconnected multi-sectoral decision platforms with the help of digital mechanisms, from a national to a community level. These platforms are essential for ensuring effective and reciprocal information flow and avoidance of delays in addressing the water services challenges.

5. The Case Study of Kiroka Village

The study was conducted in Kiroka, one of the villages located in Morogoro District, about 25 km. South of the Morogoro Municipality (See Fig. 2).

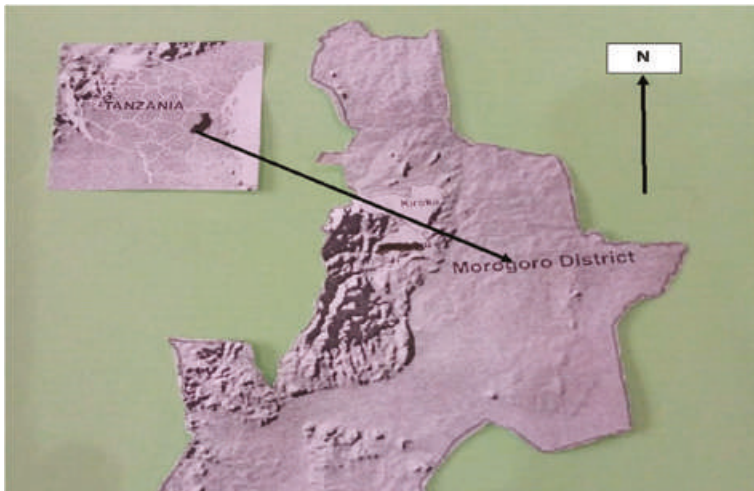


Fig. 2: Geographical location of Kiroka Village

Source: Modified from Aikambe and Mnyone, 2020

The 2012 population and housing census showed that the Village had a population of 21,853 including 10,601 men and 11,252 women (URT, 2013). Most of the villagers in Kiroka engage in subsistence rain-fed and

irrigated agriculture for rice, vegetables, fruits and root crops supplemented by pet businesses. Livestock keeping is sporadically conducted by a few villagers or sometimes Maasai immigrants. They use Kiroka village as a transit area to move from Southern villages in the Morogoro Rural District to other places in the Morogoro region. Generally, the economic activities people in Kiroka Village depend on for their livelihoods are susceptible to climatic changes and rainfall variability.

5.1. The Situation Regarding Water Availability at Kiroka Village

Kiroka Village is generally rich in water sources as it is drained by perennial rivers such as Mahembe, Kiroka/Bamba and Mwaya and many small streams, although these dry up during the dry seasons. The area also has vast wetlands which offer an opportunity for dry season farming. Despite having abundant water sources, the area does not have reliable water supplies due to a lack of adequate water storage and conveyance technologies. The area is also affected by droughts and floods, which frequently destroy water conveyance infrastructures, mainly due to climatic variability, prolonged deforestation practices and farming along the riverbanks (FAO, 2014). Following the construction of the modernized Kiroka Irrigation Scheme, water availability for irrigation, mainly in rice farms has improved. However, sometimes the farmers face acute scarcity due to the destruction of conveyance infrastructures as a result of flash floods. In addition, farmers in Block 'C' of the scheme and those irrigating using traditional furrows face acute scarcity, especially during dry seasons. Kiroka Village has 147 ha of land with irrigation potential. Following climatic challenges and water scarcity, only 80 ha is used for irrigated farming (FAO, 2014).

Significant improvements have also been made in domestic water supplies, but some challenges still exist. Currently, there are 205 water points, all of which, except for two water points, are functional. Out of these 205 water points, 170 are owned privately by village households, 15 are owned by the private and government institutions such as schools and dispensaries, and 20 are communal water points. New applications have been received but new connections rejected due to inadequate capacity of the available storage tank to store more water. Due to scarcity, in dry seasons water is allocated on a rotational basis. Generally, the water resource supply services at Kiroka Village are not adequate enough to meet the current needs for irrigation and for WASH consumption.

5.2. Governance of Domestic and Irrigation Water Resources at Kiroka Village

At Kiroka Village, two water user groups participate in the governance of water resources. The first is the irrigators' group called the Association of Kiroka Irrigators or in Swahili *Umoja wa Wakulima wa Umwagiliaji Kiroka* (UWAUKI), established in 2004 by the smallholder farmers conducting irrigated rice farming. This group was registered on 14th May 2009 under the Societies Act CAP, 337. The farmers in UWAUKI conduct irrigation through the modernized Kiroka irrigation scheme (KIS), covering Four (4) km of the main canal of which Three (3) are lined and One (1) km still earthen, running from Kiroka Village Southwards to the borders with the nearby Kiziwa Village in the Morogoro District. More than 1000 members, divided into three Blocks, namely A, B, and C use this scheme mostly for rice irrigation and to some extent, watering small vegetable gardens.

The second group was called the Community Owned Water Supply Organisation (COWSO) formed in 2012, which governed the water use for sanitation, hygiene and other domestic purposes. Currently, the Kiroka COWSO has been transformed into the Community Based Water Supply Organisation (CBWSO) as per the new Water Supply and Sanitation Act No. 5 enacted in 2019 repealing the Water Supply and Sanitation Act No.12 of 2009 which established COWSOs. The Kiroka CBWSO was established by merging the Kiroka and the nearby Kiziwa COWSO. The Kiroka CBWSO manages the domestic water supply project, which the World Bank constructed and submitted to the Kiroka villagers by the government in 2005. It is believed that being an autonomous community organization, the Kiroka Community Based Water Supply Organisation (CBWSO) will enhance the mobilization of local people and promote their role in domestic water governance.

The Association of Kiroka Irrigators or in Swahili *Umoja wa Wakulima wa Umwagiliaji Kiroka* (UWAUKI), and Kiroka CBWSO are functionally related, both operate at the community level but have no reporting relationships, and are regulated through different channels (See Fig. 3). The UWAUKI group is regulated through DAICOs under the Ministry of President Office, Local Government and Regional Administration (PO-RALG) while the Kiroka CBWSO is regulated through the Rural Water Supply and Sanitation Agency (RUWASSA) Morogoro District Office under the Ministry of Water. Based on the current governance structure both of them are indirectly controlled through the Water

Resource Management sub-sector, being the overall caretaker of all water resources in the country.

The National Water Policy prescribes connecting grassroots water user groups to umbrella organisations in particular the Water Users Associations (WUAs) and Sub-catchment or Catchment Water Committees before reaching the Basin Water Office. The Kiroka CBWSO and UWAUKI group are currently not connected to any of these umbrella organisations, so in case of any issues related to the Water Resource Management sub-sector these organizations communicate directly with the Wami-Ruvu Basin Water Office located in the Morogoro Municipality. Moreover, the practice shows that communication between the water users groups in Kiroka and the Wami-Ruvu Basin Water Office is mostly informational and advisory rather than formal, despite the latter being the overall controller of water resource management and usage within the basin boundaries.

In addition, the communication between UWAUKI and Kiroka CBWSO is equally informational and informal rather than reporting and formal. Despite having informal communication, these two organizations have managed to collaborate in various activities, such as environmental cleanliness around water sources, and monitoring illegal water use practices. This was made possible due to the long social relations the people had been sharing in addressing various problems in their community which worked better than the formal groups' governing rules.

5.3. Practices Regarding Irrigation, Sanitation and Hygiene Rules at Kiroka Village

To enhance the sustainable use of water, water users in Kiroka *Village* have formulated constitutional rules through their water use groups, namely the *Umoja wa Wakulima wa Umwagiliaji Kiroka* (UWAUKI) and Kiroka Community Owned Water Supply Organisation (COWSO) now Community Based Water Supply Organisation (CBOWSO) to deal with irrigation and domestic water issues respectively.

Concerning irrigation, among the important rules stipulated in the UWAUKI Constitution, is the participation in O&M activities through the traditional collective work system called *Msalagambo* and the payment of the annual contributions amounting to 5,000 TSHS (about 2.5

USD) or 20 kg of pad per acre. The rules apply to both member and non-member irrigators who want to use water from the modernized irrigation canal. Initially, the constitution demanded a contribution of one sack of 100 kg of pad from each irrigator after harvest. However, due to low harvests, most farmers failed to contribute to such quantities. The rules have thus been relaxed to 20 Kg.

Another rule prohibits washing, bathing and fetching drinking water from the irrigation canal. According to the UWAUKI constitution, such uses are illegal and whoever is caught using water for such purposes is liable for a fine amounting to 50,000 TSHS (about 25 USD). Such an offence is also punishable through Section 103, part XIII of the Water Resource Management Act No. 11 of 2009. Although the formally written rules and regulations provide for the use of punishment to sanction illegal uses, in most cases, offenders were forgiven or only given light punishment such as cleaning the portion of the scheme environment. Generally, apart from legal-rational rules, the UWAUKI group is guided by the farmers' informal rules according to their demands.

The then COWSO constitutional rules also provide a framework for O&M activities and the payment of water use fees for domestic water uses. Rule bending practices were also observed in such uses. During the interviews, the CBOWSO Secretary said that each villager sourcing water from a public tap for domestic uses had to pay 20 Tanzanian Shillings (about 0.01 USD) per a 20 liters bucket. Domestic water users were also required to pay an annual fee of 5,000 Tanzanian shillings (about 2.5 USD), as per the COWSO Constitution. Still, many have refused to pay. Naturally, the amounts would be doubled, bearing in mind the voluminous payments they would make each time they abstract water from the taps. The fee was thus cancelled, despite being constitutional.

Although the WHO/UNICEF hygiene rules emphasize drawing drinking water from improved sources, some villagers still drink water directly from the rivers. In most cases, they do not treat the water before using it. Interviews revealed that most villagers do not like to treat drinking water despite the awareness and sensitization campaigns as they find treated or boiled water tasteless. The water from taps is treated at their source. Still, the chances of contamination are high due to inappropriate hygiene behaviours and practices such as fetching drinking water by dipping the single drinking cup for the whole family members and guests,

inside the pot or bucket without washing their hands with running water and soap.

Face-to-face interviews and focus group discussions revealed that most villagers cannot afford to regularly wash their hands with running water from the tap simply because water is not regularly available and if it is, it is often too expensive. When it comes to COVID-19, instead of relying on handwashing, villagers have resorted to natural herbs – in the local language *Nyungu* – for treatment and prevention in addition to medical treatments from neighbouring hospitals.

To some extent, the villagers abide by the sanitation rules as most of them use toilets, mostly pit toilets some with ventilators and covers to the holes to prevent spreading of foul odor and flies around the house environments. Villagers also use ashes from banned firewood or charcoal to prevent foul odor from toilets and kill germs. Water is used instead of tissue paper for hygiene cleaning after urination and defecation. Women and young girls need more water than men and boys because they use it more frequently for cleansing during their menstrual cycle. Using tissue paper for cleaning after defecation is considered unhygienic by many. Most of the toilets in the visited households were equipped with buckets or pots of water for intimate cleansing but did not have running water and soap near the toilets for handwashing. Moreover, toilet-sharing among family members and with neighbors or by-passers is rather common. Interviews revealed that toilet-sharing is a long-lived culture of helping each other in the area. Through such culture, people who cannot afford to have their toilets due to financial constraints or any other factors access the services free of charge.

6. Vulnerability and Adaptive Capacity of the Water Users Groups

Like others in the country, the villagers at Kiroka Sub-catchment are vulnerable to climatic changes and variability. Also, poor agricultural activities such as farming near the river banks, are exacerbated by population expansions mostly due to in-migration to the surrounding villages, especially by the nearby mountain dwellers. The main effect the villagers face is flash floods which normally destroy crops and water conveyance infrastructures. For example, during the 2019/2020 farming season,

flash floods destroyed about 40M distance of the lined canal used by UWAUKI irrigators, causing massive water loss from Rivers Mwaya and Mahembe. As the group's chairman and secretary explained, the group has reported the case several times to the Morogoro District Council, but no actions were taken so far.

Reports on farming activities close to the riverbanks have also been sent to the Morogoro District Council; yet, no response was provided. The Water Resource Management Act (WRMA) of 2009 prohibits farming within 60M from the riverbank, and Basin Water Authorities were mandated to supervise the enforcement of this law and punish defectors. Surprisingly, the Wami-Ruvu Basin, an organization designated as the caretaker of all water resources in the basin jurisdiction, including the Kiroka Village, is silent on such illegal practices by farmers. Interviews with the scheme leaders in UWAUKI revealed that the Wami-Ruvu Basin Water officials do not monitor the scheme, so it is difficult for them to know what exactly takes place. As a result of massive water loss, lower course farmers in Block B and C faced acute water scarcity during the 2019/2020 farming season.

To address this scarcity issue, the farmers employed different measures. The first measure was to take water from the River Kiroka. To get water from this river, the farmers had to dig a furrow without lining it from the river to the canal. Although River Kiroka passes adjacent to the scheme's main canal, the farmers have no right to extract or source its water as their permit does not allow it. However, due to the flow suspension of River Mahembe, the farmers found themselves with no other choice but to get water from this river, despite not having the authorization to do so.

Yet, a portion of River Kiroka/Bamba was also destroyed by the 2019 flash floods, leading to a redirection of the flows away from the irrigators' farms. To address this problem, farmers (UWAUKI members) and non-members who hire plots in the scheme area, work together through the traditional work system (*Msalagambo*) each Wednesday so as to try and seal the cracked river bank. To do so, farmers fill nylon bags (*viroba*) with sand and bury them under the water to get the level where water will not crossover the riverbank and change direction (*See Fig. 3*). Thanks to such local initiatives, farmers have succeeded in creating the expected flows, although such flows are intermittent and require frequent interventions.



Fig. 3: Local initiative in the prevention of water loss at River Kiroka/Bamba

In addition to flash floods, River Kiroka is also affected by siltation, especially below the bridge connecting Kiroka and Mahembe Villages. This is caused by soil erosions resulting from farming activities near the river banks (See Fig. 3). Through the *Msalagambo* work system, farmers have been digging the riverbed using hand hoes to remove the sand and increase the river depth to increase the water flow towards their canal and farms. The study found *Msalagambo* to be a beneficial adaptive strategy to climatic and human disasters affecting the access to irrigation water in the study area. All members of the scheme are obliged to participate in *Msalagambo*. Those who fail to do so are threatened with a fine which is internally charged within the scheme if it is a first-time offence and charged through the Village Leadership if the offender repeats rule violations or refuses to pay the fine. Should they be unable to pay, the offender may be forgiven or given an alternative punishment. Apparently, the sanctioning mechanisms employed in this area reflect institutional aggregations articulated in the critical institutionalism, as discussed previously in this text.

The study also revealed innovative practices in domestic water supplies. During the interviews, the Kiroka CBOWSO leaders explained

Tab. 1: Domestic water price in Kiroka CBWSO

Old price per domestic water unit		New price per domestic water unit	
TSHS	USD	TSHS	USD
400	0.2	1000	0.5

Source: Interviews with the Kiroka CBWSO Secretary

how the Kiroka water users, under the guidance of their leaders and more especially of the group secretary, managed to solve acute water shortage caused by technological challenges in the storage tank. Due to some technical errors during installation, the storage tank took a long time to fill when water was drained from the source. Sometimes, it took the whole day for that tank to be filled. Due to this problem, the flow of water to the main and distribution pipes was very limited. After consultation with the COWSO members, the secretary took initiatives to trace the source of the problem. He discovered the problem and fixed it using local technologies. Before solving the problem, his discovery was discussed in the general members meeting. The meeting also approved the purchase of the equipment needed for fixing the problem using the money from the group's account. The technical problem is now solved, and the water speed when filling the water storage tank flows to the distribution pipes, and supplies to the users have increased. After they managed to fix the problem, the COWSO leaders sent a proposal for increasing the price for the tap water from the old 400–1000 TSHS (0.2–0.5 USD) per unit as Tab. 1. illustrates.

The proposal was approved, and the new price is now used. Since adopting the new price, the group has recorded an increase of income from water billing. Interviews with the water scheme leaders revealed that the water users' group undertook the efforts to address the technical challenge without any support from government leaders and experts.

7. Conclusion and Discussions

Water Demands and Availability at Kiroka Village

Like other countries, Tanzania adopted the IWRM approach in water governance. The aim was to ensure participatory and sustainable water governance to meet various uses including irrigation and WASH purposes equitably. Despite enormous efforts, some people still lack adequate

access to even basic water and sanitation services. The people at Kiroka Village are among those experiencing water scarcity. The study found that the area is well endowed with water resources, but the responsible authorities lack the capacity to invest in storage and conveyance infrastructures to enable effective water distribution. In addition, failure to rehabilitate the broken conveyance infrastructures on time has exacerbated water scarcity. Moreover, failure to prevent poor practices such as farming near the riverbanks has intensified silt depositions in riverbeds, leading to reduced flows and water scarcity. As a result of water scarcity, most people do not get enough irrigation and WASH consumption supplies. This consequently makes it difficult for them to comply effectively with the hygiene rules. Generally, the Kiroka Village situation shows how water scarcity can be administratively and technologically induced, rather than be a natural process, as many would think. Various factors could have contributed to the existing administrative and technological challenges, some of them emanate from the existing governance structures as the discussions below will highlight.

7.1. Structural Challenges of Water Governance at Kiroka Village

As indicated earlier in this text, the government has embarked on various programs of institutional reforms to enhance water governance for irrigation and WASH uses. Institutional reforms, as indicated by the experience in Kiroka Village, have resulted in co-production arrangements in which the government and donors on the one hand and the water users on the other hand, can make substantial contributions to facilitate the provision and management of water. Such arrangements are commendable given the capacity limitations each part faces in meeting water supply costs. However, the existing structural arrangements pose some threats to further improvements and sustainability of the achieved benefits in Kiroka.

The most obvious challenge is the tension among key ministries. Although the Ministry of Agriculture (MoA) and the Ministry of Water share the primary responsibility in ensuring that the agricultural and domestic water resources are sustainably managed and utilized for domestic and development purposes, their role at the grassroots levels where most of water consuming activities are found is highly limited. For example, the National Irrigation Commission (NiRC), the organ through

which the Ministry of Agriculture (MoA) controls irrigation activities and Regional Irrigation Engineers to whom NiRC delegate responsibilities at the regional level does not have reporting relationships with the District Agricultural, Irrigation and Cooperative Officers (DAICOs), as their link is mainly advisory. Due to a lack of formal reporting relationships with the DAICOs, who are the gateway to communities, it is difficult for the MoA to know what goes around at the local levels and particularly in the Kiroka Village concerning irrigation practices. This situation partly contributes to delays in addressing the water supply challenges faced by the Village's irrigators.

The same case applies to the Ministry of Water. Although the National Water Policy asserts that the Ministry responsible for water will be the custodian of the law and will coordinate water use plans (URT, 2002), it has no full control of water use in irrigation as it only plays an advisory role to the authorities responsible for the management of irrigated farming in the country.

Generally, there are tensions caused by the presence of parallel institutions and duplications of efforts in domestic and irrigation water governance. The study found out that most of the challenges the water user groups (UWAUKI and Kiroka CBOWSO) face in the Kiroka Village, emanate mainly from a weak coordination which, in turn, leads to a lack of responsibility among the concerned government ministries and agencies. For example, some officials from the MoA, PO-RALG and Morogoro District Council visited the Kiroka irrigation scheme in different periods and saw damaged equipment but no one seemed to take the primary responsibility in order to fix the problem.

Tensions also exist at the local level between the Village and CBWSO leaders. Based on the new law (Act. No. 5), the community members through their Community-Based Water Supply Organisations (CBWSOs) will have a louder voice in all matters about ownership and management of domestic water supply schemes in their area. Despite this provision by the law, village leaders think that they have the right to question what is going on in the CBOWSO, especially concerning financial issues, and will ask the CBOWSO leaders to provide performance and financial reports to the Village government meetings. The CBOWSO leaders want to only report to the RUWASSA District office as the law provides and see the reporting to the village government as a duplication of efforts. The claim by the CBWSO leaders seems to overlook the Local Government (District Authorities) Act of 1982, which considers a village

in Mainland Tanzania as a legal institution (Settlement) charged with the supervision of all development activities in the area, including water resource management activities.

8. Concluding Remarks

Following the adoption of the IWRM, there has been an evolution of new institutional arrangements in which the civic activities in the governance of water and sanitation services have been strengthened in Tanzania. Although the formal co-production and access arrangements through the civic organisations have been formally prescribed in the national policies and laws governing water services in irrigation and WASH sectors, the services have, to a large extent, been facilitated by the villagers' informal and innovative rules, norms and practices. Of particular importance is the role played by the Msalagambo traditional work system in rehabilitating the river structures to prevent flows, and insanctioning rule-breakers. Generally, the study revealed that the formal-informal institutional linkages and interfaces provide useful arrangements for addressing the challenges in water resources governance emanating from structural vacuum and enhancing adaptive capacity and resilience of water users in the Kiroka Village. This achievement could not happen if only the formal coproduction institutional arrangement operated. This challenges the rational choice argument that resource users are always selfish, inactive and unsuited for collective action.

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Chapter 9

Conflict Prevention, Dialogue and Resilience: Exploring Links and Synergies

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1. Introduction

Resilience as a concept has been applied and discussed across a variety of disciplines such as disaster management, environmental studies and psychology (see for instance eds Paton and Johnston 2018; Pelling, 2011; Bonnano and Diminich, 2013). Surprisingly, resilience in the context of peace and conflict studies, and more specifically in the field of conflict prevention, is rarely discussed, despite the fact that the two concepts share important characteristics, and that resilience-building is often an explicit or implicit objective of conflict prevention initiatives. Resilience, albeit defined in many ways, is concerned, much like conflict prevention, with identifying vulnerabilities at individual and systemic levels, in order to strengthen local and collective capacities in face of potential natural and/or man-made crises. Unpacking the connections between the two concepts helps to understand how they not only share characteristics, but are in fact co-constructed and can nourish each other in valuable ways. As we will show, dialogue is useful for activating these links, for instance by building the capacity of communities to interact, discover strengths and vulnerabilities, as well as foster mutual understanding.

Just like resilience-based policies do not aim at erasing the risks weighting on individuals or societies, but at enhancing their preparation and capacities to react, conflict prevention does not aim at suppressing conflict. Rather, and because conflict is seen as an unavoidable part of life, conflict prevention is concerned with the escalation of conflict into physical violence. The aim of conflict prevention is therefore to preempt violent conflict by transforming it in a peaceful way (Miall, 2007). In order to do so, one of the main tasks of conflict prevention is to identify

the various vulnerabilities and fault lines that cut across groups and that can expose them to higher risks of violence escalation. Building on this mapping exercise, conflict prevention activities aim at strengthening individual and collective capacities not only to resist violence and the destruction that it brings, but also to foster dialogue, solidarity, and more equal societies in order to prevent violence from escalating in the first place.

Although the conceptual nexus between conflict prevention and resilience has not yet been much explored, examples abound at the practical level, showing how resilience-building policies can eventually play the role of violence preventers, and how conflict prevention programs often aim at enhancing the resilience of individuals, groups, and societies. In this chapter, our aim is to illustrate this deep entanglement by building on examples from Sub-Saharan Africa, especially Tanzania and Burundi. These examples illustrate, in our view, the need to better integrate resilience-thinking into peace and conflict studies, but also to raise awareness on the potential of conflict prevention initiatives to build resilience well beyond the political and military realms. As we will see, thinking about resilience in conflict prevention schemes notably leads to paying attention to income inequalities, changes in livelihoods in the context of climate change, or to the multiple intersecting factors preventing individuals and/or groups to develop their capacities to adapt to and/or recover from incremental or sudden changes.

The chapter starts with a discussion on the links between the concepts of conflict prevention, vulnerability and resilience. We notably highlight how focusing on prevention can participate in addressing the critiques and shortcomings that are often attributed to the concept of resilience, which is often accused of pushing back responsibility towards the individuals, and of neglecting and silencing the structural constraints under which individuals operate. In the second section, we dive into the concrete relations between conflict prevention and resilience at the everyday level. We notably show how the practice of conflict prevention, and more specifically structural conflict prevention, helps to address the mundane sources of inequalities between individuals and groups. In the third section, we explore how dialogue, which is a particularly valued and versatile tool for conflict prevention, can help to build both individual and collective resilience capacities, notably by increasing information sharing about important issues, as well as about solutions and good practices.

2. Exploring the Links between Conflict Prevention, Vulnerabilities and Resilience

As one of the most popular concepts used in various fields of science during the past decades, the word resilience has been associated with different meanings, depending on whether it is applied to individuals, collectivities or systems (Magis, 2010; Nelson and Stathers, 2009). These definitions display obvious differences, for instance depending on whether they are applied to children or to ecological systems. This being said, they also do exhibit striking similarities. Notably, they all emphasize the notion of adaptation during or after a shock, traumatic event or rapid change. Similarly, they all entail the idea of a capacity to recover from or accommodate changes and disturbances. And finally, they all build on the idea that resilience can be improved by addressing potential individual or collective vulnerabilities, and by fostering corresponding adaptation capabilities.

In addition, the existing academic literature identifies multiple sources of vulnerabilities for individuals as well as for communities (see for instance Eakin and Luers, 2006; Tschakert and Tuana, 2013). Vulnerabilities often intersect and overlap, and individuals as well as groups that lack resilience are likely to be simultaneous victims of inequality, poverty, social isolation, lack of access to power, resources, decision-making structures, social networks, and information (see for instance Tacoli et al., 2014). In parallel, studies have identified various factors fostering resilience, such as adaptability, flexibility, community self-organization and development, as well as cultural and social factors, such as the role played by family and community structures (see for instance Berkes and Ross, 2013; Chaskin, 2008).

While conflict prevention studies and resilience research admittedly belong to largely separate fields of study which have rarely come in contact with one another, it is striking to see that they bear multiple connections and are actually deeply entangled at an empirical level. Indeed, one of the main aims of conflict prevention is to identify and address vulnerabilities that lead to a conflict or to a deterioration of the situation, be these vulnerabilities located at the individual, collective, and/or structural level (Leatherman et al., 1999). Like the concept of resilience, conflict prevention has been very popular over the past decades, and has given birth to multiple and diverse local, national, and international policies. In the existing literature, a distinction is usually made

between two conflict prevention approaches. On the one hand what is called “operational” or “light” conflict prevention, which pertains to preventive diplomacy and other diplomatic tools such as negotiation, mediation, dialogue, or good offices. And, on the other hand, “structural” or “deep” conflict prevention, which focuses on the root causes of conflicts and tries to address structural issues such as under-development, inequality, or poor governance. Operational conflict prevention tends to be practiced by political actors located at state and interstate levels (see for instance George, 1999), whereas structural conflict prevention can involve a great variety of actors, from grassroots organizations to international development agencies (Ackermann, 2003, pp. 341–342; see also Barnes, 2006). Another difference between the two approaches is that operational conflict prevention is said to be more short term and implemented in times of urgency, whereas structural conflict prevention is supposed to be more long term and affect societies for longer periods of time (Leatherman et al., 1999, p. 47; Wallensteen and Möller, 2004). It is, however, important to underscore that the distinction between these two types of conflict prevention is not always so clear-cut, and that many actors on the ground creatively mix the two approaches, as we will further explore in this chapter.

In many ways, both structural and operational conflict prevention, including dialogue, provide concrete avenues for the operationalizing of the resilience concept, in the sense that they can both contribute to address vulnerabilities and foster resilience at individual and group levels. They can also help ground resilience thinking, which is often abstract, into concrete matters, especially in a context where remote technologies are increasingly used by international agencies in order to map the resilience capacities of populations (Duffield, 2013). Remote technologies, such as artificial intelligence, big data, and satellite imagery are indeed frequently used in order to measure vulnerabilities and to assess the resilience capacities of individuals and groups living in disaster zones or in areas affected by climate change. As such, these techniques tend to render more abstract the problems faced by the affected populations, notably by maintaining a physical distance between them and the relevant decision makers (Roth and Luczak-Roesch, 2020). By contrast, assessing and building resilience capacities through conflict prevention and dialogue activities, especially at the local level, puts actors in contact with one another and embeds interventions in their everyday lives. In this way, and as we will further explain below, conflict prevention and dialogue

help to give back some agency to local actors, which constitutes one of the prerequisites of resilience.

More specifically, structural conflict prevention is concerned with creating contexts, structures and relations that make violence less likely (Ramsbotham, 2011, p. 126). In order to do so, it targets particularly vulnerable communities and fosters their resilience by building their agency and capacity to respond to crises, for instance by promoting more equal societies at the economic and political levels; it thus leads to questioning and challenging existing practices and possibly also existing relations of power that lie at the roots of social, economic, and cultural inequalities. At the core of structural conflict prevention therefore lies the objective of strengthening the resilience of local communities as well as of individuals, so that they are better prepared for potential difficulties lying ahead. In Burundi, for instance, civil society organizations have built upon the knowledge gained during the multiple episodes of violent conflict that the country has experienced since its independence in order to design programs for fighting poverty and for increasing the economic resilience of the poorest households. Structural conflict prevention initiatives led by Burundian women's civil society groups include for instance microcredit projects and capacity-building programs designed to support particularly vulnerable individuals, for instance displaced families and/or former combatants. Interestingly, most of these women's groups promote a multilevel approach – from the *colline* to the transnational level – which increases not only their own capacity to weather political pressure and change, but also the resilience of the individuals and of the communities they are trying to help (Féron, 2020).

Operational conflict prevention offers a complementary approach to structural conflict prevention by addressing the most immediate causes for divisions and conflict, for instance by promoting dialogue and exchange between societal, economic or cultural actors with divergent interests. One of its main aims is to improve access to information for all concerned individuals or groups. It can also provide decision-makers with crucial data on the situation faced by local groups, on their vulnerabilities as well as on their adaptation capacities. In that sense, operational conflict prevention targets one of the main obstacles to individual and group resilience, that is vulnerabilities deriving from a differentiated access to core information and to power structures. As we will further explore in the last section of this chapter, dialogue as a specific tool of operational conflict prevention is particularly efficient for opening spaces

through which resilience strategies can be elaborated and implemented. Through the exchange of information that dialogue allows, vulnerabilities and capacities for resilience can be identified, and options for building trust between various groups and/or individuals can be explored. For instance, in the previously mentioned Burundian example, civil society organizations and in particular women's groups have been supporting dialogue between the various conflict actors at all societal levels. In particular, they have organized local dialogue platforms complementing official dialogue processes at the national level, thus ensuring a sustained and multileveled exchange of information between all concerned groups, and a better identification of strategies for building resilience at the local and national levels (Féron, 2017).

More generally, because it is concerned with the broader structures that can inhibit adaptation, as well as with what strengthen individuals and/or communities, conflict prevention also helps to promote a more encompassing approach to resilience. In other words, conflict prevention puts the focus on the conditions that render groups and societies vulnerable, instead of drawing attention to the individuals' responsibility for ensuring their own security – an aspect of resilience thinking that has attracted a lot of criticism over the past decade (see for instance Joseph, 2013). By shedding light on the collective dimension of both vulnerabilities and adaptation capacities, conflict prevention thus counters resilience approaches that neglect the multiple constraints under which individuals operate. In that sense, conflict prevention promotes an understanding of vulnerabilities and of resilience that is tightly related to intersectional thinking (see also Féron, this volume). Since conflicts are always understood to be multicausal and multifaceted, the focus is never only put on a single vulnerability factor, but rather on the multiplicity of causes that can explain the eruption of violence. Conflict prevention approaches, through tools such as early warning systems, also pay attention to complex causality, to the co-construction of conflict causes, and to how various conflict dimensions interact with one another (Halkia et al., 2020). At the empirical level, this inclusive and intersectional approach to conflict prevention is defended by many local actors, for instance by the previously mentioned Burundian civil society organizations, and especially by Burundian women's groups, which tend to involve all individuals, regardless of their ethnicity, religion, culture, region of origin, age or gender, and of their war experience – thus including former combatants as well as repatriated individuals, widows, single mothers, IDPs, and so on (Féron, 2020).

While we have so far emphasized how a conflict prevention approach can help to develop the resilience of both individuals and communities, it is worth underscoring the fact that, conversely, the concept of resilience can assist in designing more targeted conflict prevention policies. As previously mentioned, since the end of the Cold War conflict prevention has been a victim of its own popularity, which has led to a dilution of its meaning as well as of its policy value (Ackermann, 2003). Conflict prevention has become an umbrella term that includes not only genuine preventive actions undertaken before the eruption of massive forms of violence, but also policies implemented later during the conflict cycle, relating for instance to conflict containment or even to violence management. In that sense, a conflict prevention approach relying closely on the concept of resilience can be of great use to policy makers, as it helps to shift the focus back to the core objective of conflict prevention, that is to identify individual and collective vulnerabilities, but also strengths and adaptation capacities, in order to foster resistance to conflict and violence (see START Network, 2018).

In the next two sections we will explore in more details the practical relations between conflict prevention and resilience, notably by highlighting how the practice of conflict prevention, and more specifically structural conflict prevention, is particularly efficient in tackling sources of inequalities between individuals and groups. In the last section, we will analyse how dialogue as a specific tool for operational conflict prevention helps to build resilience capacities at the interpersonal and collective levels.

3. Addressing Inequalities, and Developing Everyday Agency and Resilience

One of the main characteristics of structural conflict prevention is that it tries to address individual and collective sources of vulnerability such as inequalities, poverty, and social isolation, as well as a lack of access to power, resources or decision-making structures. Many structural conflict prevention initiatives implement these objectives through large-scale development programs, often funded by international actors such as the United Nations development agencies, or by the European Union. But although the broad scale of these programs cannot be denied, it is important to recognize that in practice they are implemented by an extremely diverse range of actors (see for instance Gore, 2013; Richey

and Ponte, 2014), and that a large number of these choose to focus on the micro and local level, especially when their explicit objective is the prevention of conflict re-emergence (see for instance Fearon, Humphreys and Weinstein, 2009). Such a focus on specific contexts is all the more important that literature has now well established that the nature of vulnerabilities, as well as the capacities for resilience, are always context-dependent (see for instance Cohen et al., 2016). In that sense, one of the prerequisites for ensuring the effectiveness of conflict prevention measures is that they have to be specifically tailored to the characteristics of the situation at hand. Among the tools that have been recently designed in order to ensure context-specificity, the Interpeace Framework for Assessing Resilience (FAR) developed in Liberia is worth mentioning, as one of its main objectives is to find conflict prevention and resilience strategies that are endogenous to the country (Platform for Dialogue and Peace (PDP), 2015).

But beyond the national level, implementing conflict prevention initiatives at the local and micro level is particularly interesting from a resilience perspective, because it enables a focus on local ownership and agency. In particular, conflict prevention can be instrumental in building the resilience of local communities by designing locally adapted interventions: in Burundi for instance, organizations like Dushirehamwe (*Let's reconcile* in Kirundi) have developed a large array of local programs in order to prevent local conflicts and build capacities for conflict prevention and dialogue at the local level¹. Many civil society organizations involved in conflict prevention activities in the Great Lakes region of Africa have similarly designed micro and community-level approaches. This allows them to implement targeted programs and create local spaces where small groups of people can articulate and convey their grievances, support one another, and hopefully find solutions together to the problems they face. Such strategies constitute an asset not only for fighting vulnerabilities and enhancing the resilience of local communities, but also for the civil society organizations themselves, as it allows them to operate away from the constraints and pressure of national politics (Féron, 2020). In that sense local approaches to conflict prevention can foster and strengthen the resilience of targeted individuals and groups, but also of the involved civil society organizations, and therefore of the public sphere.

¹ For an overview of Dushirehamwe's work, see: <https://www.peaceinsight.org/en/organisations/dushirehamwe/?location=burundi&theme>

Structural conflict prevention also tends to focus on the development of everyday and mundane practices and skills, thereby participating in ensuring resilience at the very practical level. Here again, the development of skills and techniques, which themselves help to build agency and foster resilience, has to be adapted to the local context and needs. In other words, conflict prevention strategies need to be tailor-made and flexible, depending not only on the specific threats faced by each local community, but also on their usual livelihoods and mundane practices, and on available resources. In Tanzania, for instance, the Pastoral Women's Council, a Tanzanian organization working to empower Maasai women and girls, has developed tailored approaches fostering the resilience of local communities, depending on their livelihoods². In areas where communities depend on cattle breeding, they have supported the crossbreeding of cattle in order to improve the health of cows. They also address gender inequality through economic empowerment, for instance through 'revolving livestock exchange'³, a scheme for exchanging livestock between members of the Women's Solidarity group Bomas. The Pastoral Women's Council also participates in a sustainable mining initiative spearheaded by the IIED (the International Institute for Environment and Development), also taking into account the broader frame of Sustainable Development Goals⁴.

In this perspective, conflict prevention is most efficient when it focuses on those specific fields of activity where resilience is needed. This is particularly the case in development programs enhancing local practices such as cattle herding, crop-resilience, and other mundane practices helping local populations to adapt to climate change. But it is also true of key economic sectors that employ a large number of people. In Tanzania for instance, artisanal as well as large-scale mining employs millions in the country (Mutagwaba et al., 2018). Large-scale and in particular artisanal and small-scale mining (ASM) are drivers of conflict and tensions, in terms of gender-based and inter-communal violence, inequality, climate change adaptation and health issues. Structural constraints and a lack of equal access to resources specifically

² See their website: <http://www.pastoralwomenscouncil.org>

³ See <http://www.pastoralwomenscouncil.org/economic.html>

⁴ See for instance: <https://www.iied.org/using-dialogue-extract-sustainable-solutions-for-artisanal-small-scale-mining>

feed these dynamics. In collaboration with local partners, the IIED has implemented multi-stakeholder conflict prevention programs since 2014, in an attempt to address these issues (Weldegiorgis and Buxton, 2017). These conflict prevention programs have been designed to bring together relevant stakeholders in the mining sector as well as government representatives, in order to identify challenges and solutions for improving mining practices in ASM.

More generally, structural conflict prevention matters for everyday resilience because it aims to address the underlying structures and inequalities of power that increase the vulnerability of specific individuals and/or groups, and that may be invisible from an external or international perspective. In particular, conflict prevention can help to challenge existing structures of power, by pushing for changes in institutions allocating resources, in the governmental as well as in the corporate and private sectors. Going back to the previously mentioned example of artisanal mining in Tanzania, several initiatives have been taken in order to fight against gender inequality in the industry, and to improve the resilience of women working in this sector, by local organizations such as the above mentioned Pastoral Women's Council. African Minerals Development Centre (AMDC) estimates that women constitute about 30 % of people working in artisanal mining in Tanzania (AMDC, 2017), but this does not mean that their voices and specific vulnerabilities are taken into account. Gender inequalities are fueled both by women's lack of access to resources, as well as by the specific roles that women tend to occupy in artisanal mining, making them 'invisible' in mining processes (IGF, 2018, p. 1). By shedding light on women's predicament, these local and international initiatives contribute not only to inscribe this issue on the national policy agenda, but also to develop the agency of the concerned groups. At a more general level, structural conflict prevention initiatives can be particularly well-suited for addressing invisible but influential structures of power that impede individual and collective resilience. In particular, women's vulnerabilities in specific economic fields are often related to broader patterns of gender discrimination and to patriarchal structures and traditions. In Burundi for instance, one of the main objectives of Burundian women's groups is to transform patriarchal structures by building women's capacities, by fighting for gender quotas, by trying to promote alternative gender roles and models, and so on. This kind of work can be implemented both at the local level, but also at the level of national political institutions, where organizations

like the Forum National des Femmes (*Women's National Forum*)⁵ or the CAFOB (in French: Collectif des Associations et ONGs Féminines du Burundi, *Collective of Women's Associations and NGOs of Burundi*)⁶ promote changes through actively lobbying politicians and decision-makers.

Structural conflict prevention can also be particularly effective for taking into account the intersectional dimension of individual and collective vulnerabilities, and therefore resilience. In the previously mentioned example of womens' groups in Burundi for instance, many organizations use a combination of objectives in order to reach their goals, like combining efforts for resolving conflicts with initiatives in order to improve the individuals' financial autonomy, or with campaigns in order to fight against gender-based violence. Following the Burundian proverb, "A hungry stomach has no ears", these organizations build their interventions on a multifactorial and intersectional strategy, trying to address vulnerabilities and foster resilience in several areas at the same time (International Alert, 2006, p. 270). Such intersectional approaches are particularly effective for targeting disaffected and/or unemployed youth, namely through micro projects whose aim is to create solidarity across ethnic, gender, regional or generational differences (APFB, 2018). Just like conflict is always multifaceted and multidimensional, resilience has to be built across a combination of factors, like support for entrepreneurship combined with confidence building across estranged ethnic groups (AFRABU, 2019).

Finally, it is worth mentioning that structural conflict prevention also ensures conflict and disaster 'preparedness' and resilience – in relation to natural disasters, but also to man-made crises. In particular, one of the main aims of international organizations over the past two decades has been to reinforce societal and individual capacities to face the impact of climate change, and to mitigate the conflicts that arise as a consequence. In the Lake Chad region for instance, recent research has shown that although the lake is not shrinking, contrary to popular belief, local populations have been deeply affected by changes in weather patterns, leading to years of human rights violations, multiple conflicts and deep poverty. In order to support more resilient livelihoods, and to break the cycle

⁵ See <https://evaw-global-database.unwomen.org/es/countries/africa/burundi/2013/le-forum-national-des-femmes>

⁶ See their website: <http://www.cafobburundi.org>

of violence, alternative climate-smart agricultural approaches are being gradually developed (Vivekananda et al., 2019, p. 75). In another Sub-Saharan African region, the Horn of Africa, organizations such as the International Federation of the Red Cross have been trying to build the resilience of people living in arid areas by empowering them to irrigate, and by training them in modern farming techniques, in vital non-rainfed practices, as well as in disaster risk reduction (IFRC, 2011, p. 7). All of these initiatives illustrate the deep synergy existing between structural prevention approaches and policy interventions designed to improve individual and collective resilience. In the next section, we will further investigate how dialogue, as a tool for conflict prevention, can play a significant and complementary role in enhancing capacities that are vital for ensuring resilience.

4. Dialogue and Resilience

As an important component of conflict prevention, dialogue facilitates the assessment and development of resilience in multiple ways. Dialogic approaches operate at different levels from grassroots and mid-level to high-level dialogue. A multitude of tools are available for facilitating and promoting dialogue, which at the high-level includes top-down official diplomacy, national consultations, or conferences. Dialogue can also be conducted through more unofficial channels more commonly used in mid-level and grassroots levels of dialogue. This includes problem-solving workshops, cross-sectional dialogues, community organized dialogues or inter-religious mediation (see Rieker and Thune, 2017, p. 4). Although these tools are vital parts of operational conflict prevention, it's important to underscore that they contribute to structural conflict prevention too. For instance, where official diplomacy generally tackles more immediate issues of conflict rather than addressing root causes, cross-sectional and community-led dialogues can contribute to structural conflict prevention through addressing divisions in society and discover structural vulnerabilities with the potential for future conflict. Interestingly, these various types of official and non-official dialogue are complementary to one another, and help to build resilience from a variety of perspectives, as we have previously illustrated with the example of the Burundian women's groups supporting dialogue between various conflict actors at all societal levels (Féron, 2017).

As we have seen, dialogue is one of the main tools of operational conflict prevention, which deals with the immediate prospects for violence. The idea behind promoting dialogue is to forestall a degradation of the situation by repairing or building relations between different social groups or institutional, political, or cultural actors. Dialogic approaches vary, depending among other things on whether the process of dialogue is in itself an end, or whether the outcomes or solutions produced through dialogue are more important. In general, official diplomacy works to solve specific issues and therefore focus on the latter, while unofficial channels tend to focus on the process itself, in order to build and improve relationships. Regarding unofficial dialogue, Saunders (2003, p. 87) notes that “always the moderators and participants are searching for the dynamics of the relationship that cause the problems and must be changed before the problems can be resolved”. Similarly, Bohm (2004, p. 32) argues that dialogue provides a space for “opening up judgements and assumptions” and developing “shared meanings”. In this sense, the practice of dialogue itself is the primary goal, through its ability to create mutual understandings between parties.

Where dialogue in operational conflict prevention deals with immediate prospects for violence, dialogue as a tool for structural conflict prevention works to address the root causes of conflict and the structural vulnerabilities that can fuel conflict and impede resilience. As a tool for the transformation of relationships, a ‘learning, not talking’ mode of interaction (Ramsbotham, 2011, p. 374ff), dialogue can help to address and discover vulnerabilities at the societal level. Apart from addressing vulnerabilities, dialogue is also concerned with finding strengths within societies. In Liberia, the Interpeace Framework for Assessing Resilience (FAR) used community-based dialogue to find local societal strengths, and to determine endogenous factors for resilience (PDP, 2015). FAR has been seeking to identify ‘assets, resources and capacities’ that are embedded within society through an inclusive consultation process with local communities (PDP, 2015, p. 5). In this context, dialogue can contribute to identifying resilience strategies and assessing the existing capacity for resilience in societies. This adds to conflict prevention at an operational level, for instance by putting the stress on the existing strategies used by local and regional actors to manage conflict. FAR has further contributed to structural conflict prevention by highlighting existing structures and institutions that can promote social cohesion and enhance peace (PDP,

2015, p. 13). The stress put on existing capacities can shift the focus from vulnerability to a more empowering process that facilitates the ownership by local communities. At the same time, it can be argued that focusing on finding societal strengths pushes the responsibility of resilience back onto the individual, and that such an approach therefore should not stand alone. While efforts to determine capacity for resilience at the local level are valuable, they run the risk of glossing over and/or ignoring the structural constraints that inhibit these capacities.

While the concepts of operational and structural conflict prevention are theoretically separated, they are in reality often deeply intertwined. This is particularly clear when looking at dialogue processes and their contributions to conflict prevention and resilience building. Often, processes aimed at preventing an escalation of a conflicting situation, for instance through community-based dialogue, can end up contributing to structural conflict prevention through its capacity building properties. Dialogue is efficient in that it constitutes a seemingly harmless and unobtrusive approach, but holds the capacity to deeply transform relationships, find common ground or develop solutions to conflicting issues. Saunders (2009, p. 377) argues that sustained dialogue over time ‘offers a deepening spiral of opportunities to probe, analyze and even transform relationships in fundamental ways’. As such, dialogue can facilitate deep changes in society as well, and increase the resilience of both individuals and groups. However,, it’s also important to remember that dialogue processes can be challenging, especially in environments where deep societal divisions or escalating violence make it hard to get parties to interact with each other (Rieker and Thune, 2017, p. 2). Especially in situations of direct violence, facilitating dialogue can be extremely difficult (Haider and Rohwerder, 2014, p. 53). This only highlights the importance of dialogue as a conflict prevention and resilience building measure, where abilities to transform relationships can be developed prior to the eruption of violence.

As a sort of spillover effect of operational conflict prevention, dialogue builds capacity to enhance relationships in general and can help with the diagnosis of structural causes of conflict as well. First, dialogue processes can make local contexts and relations more resilient, through enhancing the capacity of communities to interact and develop trust and mutual understanding. Dialogue is indeed a tool which, when properly used, can help bridging and discovering new ideas. Saunders (2009, p. 378), writes that ‘dialogue is a probing, absorbing and engaging mode

of interaction'. It is not necessarily because it strives to tackle specific issues or propose solutions, but through its capacity building properties that dialogue facilitates resilience, in particular for vulnerable groups. In Tanzania for instance, youth radicalisation is a growing concern that has been attributed to high youth unemployment rates and socio-economic inequalities (United Nations Development Programme, 2017, p. 1; Search for Common Ground (SFCG), 2018, p. 2). In an attempt to prevent violence in the 2020 General Elections in Tanzania, the youth organization Voyohede conducted 'Youth Peace Making Dialogue' sessions, educating youths on how to maintain peace both before, during, and after the elections (Nachambu, 2020). Attempts to counter youth radicalisation at the local level have also been undertaken by The Global Peace Foundation (GPF) Tanzania, through their *Vijana na Amani* (Youth and Peace) campaign. GPF conducts youth empowerment workshops on the prevention of extremism, as well as education on moral leadership and entrepreneurship with the goal of 'raising peace ambassadors' (Yakawich, 2017). Similarly, the Pamoja Youth Initiative in Zanzibar developed the 'Daraja Forum' to connect young people and train them in using dialogue to advocate for a youth agenda⁷. Efforts to counter youth radicalisation have also included the development of so-called 'Peace Clubs' across the country, bringing together children and youth from different backgrounds for joint activities, ethics education programs, and workshops (Ethics Education for Children, 2016). Countering extremism and radicalisation contributes to conflict prevention at the local level, but it simultaneously fosters resilience through addressing (and transforming) the specific vulnerabilities of youth in Tanzania. While the above mentioned youth-to-youth dialogue processes work at a local, interpersonal, and intercommunal level, efforts to address the structural constraints affecting youth vulnerability in Tanzania have been undertaken as well, for instance through Centre for Youth Dialogue (CYD) in Zanzibar. In 2017–2018 CYD facilitated dialogue between governmental institutions and youth communities, in order to draw attention to the specific challenges faced by youth as well as enhancing collaboration and good relationships (CYD, n.d.), thereby addressing issues for structural conflict prevention as well.

⁷ See their website: <http://www.pamoja.or.tz/whatWeDo.html>

In addition, dialogue can be used as a tool for incorporating intersectionality into resilience as well. If intersectionality is a way to ‘unpack’ resilience, or to nuance analyses of adaptability and resilience in communities, dialogue is a useful means to that end. Dialogue can indeed empower and create ownership for all sections of society. In Burundi for instance, organizations like Femmes de Foi⁸ (*Women of Faith*, a women’s group including Catholic, Protestant, and Muslim participants) foster inclusivity and resilience through intersectional dialogue between various societal and religious groups. A focus on intersectionality can also facilitate finding common ground through dialogue, by drawing attention to aspects that participants have in common (such as gender, education/profession, generation, or societal position).

Creating spaces for divided communities to address challenges is an important component of dialogue, and one that can contribute to developing their collective capacity for resilience. For instance, in efforts to foster community dialogue in South Kordofan (Sudan) in 2010, the United Nations Development Programme and the Joint Programme for Conflict Prevention and Peace Building invited leaders of conflicting communities to jointly identify divisive issues and prioritize the necessary interventions (Buescher, 2013, p. 14). In this case, dialogue was used to address and determine vulnerabilities, which is one of the first steps in a resilience methodology. Additionally, resilience is highly dependent on context, and often entails different things for different local communities (see Féron, this volume). Through the joint dialogue organized in South Kordofan, vulnerabilities as well as interventions were agreed upon by members of the conflicting communities themselves, thereby facilitating contextuality through dialogue. In addition, the concerned local groups gained ownership in the process of ‘analyzing’ conflict issues, as well as capacity to map out conflict issues in the future (Agency for Peacebuilding (AfP), 2019, p. 19).

In a long term perspective, dialogue also paves the way for building resilient relationships that last beyond the solution or transformation of immediate issues. For instance, since 2011, Search for Common Ground has been heading a series of projects in Tanzania in collaboration with the Acacia mining company focusing on improving relations between the

⁸ See for instance <http://www.peaceau.org/fr/article/le-bureau-de-liaison-de-l-union-africaine-pour-le-burundi-et-la-region-des-grands-lacs-appuie-le-reseau-des-femmes-de-foi-du-burundi-pour-le-dialogue-la-paix-et-la-reconciliation>

company and the local community through the creation of dialogue platforms (Milnes, 2019, p. 14). The project discovered that the community dialogue and collaboration platforms focused around mining issues and shared interests increased each community's capacity for peaceful conflict resolution, thereby contributing to resilience through an enhanced capacity to manage conflict (Milnes, 2019, p. 40). Apart from highlighting the usefulness of dialogue as a tool for building resilience, the project outcomes additionally serve as a useful example of the capacity of dialogue to contribute to both structural and operational conflict prevention.

Finally, creative approaches to dialogue processes are important for the development of resilience as well, as they can facilitate the management of challenging issues in societies. In Tanzania, Search for Common Ground has also created inclusive dialogue platforms to involve young people for instance through the development of participatory media campaigns (Afp, 2019, p. 25). The organization has also addressed mining issues by using participatory theatre to discuss challenges and build community-level dialogue. As a tool for preventing future violence in post-conflict contexts, the use of participatory theatre has proven successful as well, for instance in Kenya where it provided a space for members of violence-affected communities to address the roots of conflict and imagine alternative solutions to violence (Baú, 2018). It is a process of acting out alternative realities, while at the same time making participants active stakeholders in this reimagination (SFCCG, n.d., pp. 4–5). In that sense, the use of creative and unconventional spaces for dialogue can have a positive effect on the process of developing mutual understanding or discussing difficult issues, which are important factors for promoting resilience.

5. Conclusions

Through this contribution, we have tried to show, on the basis of empirical examples, how resilience and conflict prevention are largely co-constructed, and how conflict prevention and dialogue ensure a focus on the local and mundane aspects of individual and collective resilience. In that sense, thinking about resilience within a conflict prevention frame helps grounding and embedding interventions into the everyday lives of concerned individuals and groups. The benefits of jointly conceptualizing conflict prevention and resilience are countless, and can give rise to initiatives, for instance dialogue forums, which return agency to local

actors. In addition, understanding resilience within the frame of conflict prevention, and especially structural conflict prevention, highlights the multiple and intersecting structural constraints that inhibit capacities for resilience.

What this overview has also underscored, is that thinking jointly about conflict prevention and resilience produces unintended mutual benefits: conflict prevention indeed helps to operationalise the concept of resilience by countering the tendency to measure it through a set of quantitative indicators that entail an epistemological distance vis-à-vis the concerned populations. On the other hand, resilience can be seen as a way to further conceptualize and strengthen the conflict prevention field. Conflict prevention's results are indeed notoriously difficult to 'measure': as scholars of conflict prevention sometimes remark, when conflict prevention is successful, 'nothing happens' – or rather, 'nothing' seems to happen. Resilience-thinking helps to unpack this 'nothing' and highlight the small changes, for instance in terms of capacity-building, that lie behind the capacity of individuals and of societies to avoid falling into the violence trap. In that sense, thinking jointly about conflict prevention, dialogue and resilience can provide a way forward for the field of conflict prevention, which, as we have seen, has sometimes been victim of its own popularity.

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Part III

THE ROLE OF WOMEN BETWEEN VULNERABILITY AND RESILIENCE

Chapter 10

From Women to Gender and Intersectionality: Rethinking Approaches to Economic Vulnerability and Resilience

PROF. ÉLISE FÉRON PHD

1. Introduction

The concept of resilience has recently attracted a lot of attention in both policy-related and academic literature. It has mostly been applied to observe and study the reactions of individuals as well as systems after an important shock, such as a natural disaster or a deep economic crisis. A lot of resilience work has also been focusing on the capacities of local communities and even of whole countries to adapt to climate change. Interestingly, resilience studies span over various fields of natural and social sciences, such as physics, ecology, but also psychology, psychiatry and disaster management.

Like many other popular concepts, the word “resilience” has fallen victim to its overuse, which has clouded its meaning to the point that it is sometimes used more as an image or a metaphor related to sustainability, than a concrete property or process (Manyena, 2006). In order to clarify this linguistic blur, various studies specialized in different fields (see for instance Martin et al., 2015; McAllister, 2016; Ungar and Liebenberg, 2011) have tried to develop resilience assessment and measure methods. Most of these methodologies, however, are only applicable to one specific field of science. Various researchers (see for instance Berkes and Ross, 2013) have tried to establish a joint and evidence-based understanding of the concept of resilience, which would be applicable across the different fields in which it is used. This joint understanding is often based on a list of criteria or attributes that can fit a multidisciplinary approach to resilience, but it falls short of providing a roadmap to a common methodological standpoint for resilience studies.

Among the social science tools that have been conveyed in order to help resilience studies move forward, and provide methodological clarity, analyses based on the concept of gender have recently gained popularity

(see for instance Hirani, Lasiuk and Hegadoren, 2016; Le Masson, 2016; Smyth and Sweetman, 2015). Yet, many of these approaches to resilience, often studied in relation to vulnerability and adaptation, tend to address gender in very simplistic terms, essentially handling it in a men-versus-women dichotomy. Although they represent progress compared to gender-blind analyses, approaches relying on a men-versus-women dichotomy overlook the fact that there are many differences in status and agency between men and women, and that gender is therefore not the only factor that matters for explaining how individuals can resist and adapt to change. Rapid changes induced by economic shocks, natural disasters or climate change affect societies and individuals in different ways, because of their distinct vulnerabilities and exposure to specific stressors. This is not to say, of course, that women are not on average more likely to be vulnerable to crises because of their lower educational attainment or limited access to land tenure (in the case of Tanzania, see for instance Johnson, 2011; Moyo, 2017). However, this chapter aims to draw attention to the fact that it is mostly in the way it intersects with other factors that gender matters for assessing vulnerabilities and capacities for adaptation.

In this perspective, this chapter proposes to examine the concept of resilience, as well as the associated concepts of vulnerability and adaptation through an intersectional lens. An intersectional approach pays attention to the intersection of various identity categories, such as gender, but also age, ethnicity, social status and so on. Using intersectionality to rethink approaches to vulnerability and resilience helps identify, not only the obstacles and challenges that hamper adjustment to change, but also the areas and opportunities that facilitate adaptation. Building upon various examples, among which the context in Tanzania, the chapter is structured around three main sections. The first section examines the promises, but also limits and shortcomings of the concept of resilience, underscoring the necessity of a power-sensitive approach to resilience. In the second section, we examine how a gendered approach to resilience, adaptation and vulnerability can provide answers to these shortcomings, notably by going beyond the men versus women dichotomy. However, as we demonstrate in the third section, it is only by adopting an intersectional approach that a truly relational and power-sensitive approach to resilience can be developed. This eventually allows the design of policies that take into account the multiple factors that shape individuals' and

collectivities' vulnerabilities as well as their capacities for adaptation and resilience.

2. Resilience between Individual and Collective Factors

Over the past few decades, the concept of resilience has become extremely popular, across various fields of research and practice. This striking popularity can perhaps be explained by the concept's extreme versatility, as it has been applied both to systems or collective entities, and individuals. During the past 50 years, resilience research has notably blossomed in psychology and psychiatry, focusing for example on factors explaining how children or adults having undergone serious hardship and/or belonging to discriminated communities develop resilience to adversity and trauma (see for instance Fleming and Ledogar, 2006). After stressing the importance of individual factors explaining resilience, this strand of research has been increasingly recognizing the role played by family, community, as well as other cultural factors in fostering individuals' adaptation and recovery. In turn, such broadened understanding of resilience has led to a growing interest in what triggers the resilience of entire groups or communities (see for instance Magis, 2010). This strand of resilience research has highlighted the importance of collective factors for ensuring resilience, such as community self-organization and development (Chaskin, 2008).

Another strand of research has focused on the resilience of whole collective systems, for instance ecological systems facing the threat of climate change, or other disasters such as fires or wars and conflicts (Eakin and Luers, 2006). In this perspective, resilience is often understood as the capacity of a system to absorb, accommodate and/or recover from changes and disturbances, while maintaining function and structures (Nelson and Stathers, 2009, p. 88). Strongly relying upon biophysical sciences, this strand of resilience research has mostly overlooked social sciences' insights about individual, cultural and/or social factors favouring or impeding resilience. In answer to this shortcoming, integrated approaches trying to reconcile (mostly individual) psychological and (mostly collective) socio-ecological approaches to resilience have subsequently been developed. These integrated approaches put the stress on adaptive capacity, community self-organization and agency as key factors for resilience (see for instance Berkes and Ross, 2013).

Many discussions on resilience tend to centre on situations during or following extreme events like natural disasters, with the coining of concepts such as that of “disaster resilience”. More specifically, literature on resilience and wars, as well as on resilience and climate change has been blossoming over the past decades (on resilience and wars see for instance MacDermid Wadsworth, 2010; Werner, 2012; on resilience and climate change see, among many others, McEvoy, Fünfgeld, and Bosomworth, 2013; Morecroft et al., 2012). For some time, these thematic associations have supported the idea that the resilience of individuals and of collective entities could or even should be studied in exceptional circumstances, for example in times of crises. However, an increasing number of studies have been pointing at the fact that the resilience of both individuals and systems can also be traced outside of exceptional events, for instance in the mundane ways through which individuals and societies deal with stress and change. This has led to an increased attention to resilience as an everyday, as opposed to an exceptional, matter (see for instance Back, 2015; Kent, 2016).

Many critics were addressed to the concept of resilience and its uses, notably pointing at the fact that the term of resilience is alternatively used to describe a process, quality, trait or outcome (Glanz and Sloboda, 2002). In addition, the precise criteria according to which resilience as a process or as an outcome should be assessed seem to vary from study to study, or from case study to case study. As a consequence, resilience is notoriously difficult to pin down and measure. Paying attention to criteria used to define resilience seems particularly important: How do we define and measure resilience? Who decides what resilience is, and according to which criteria should it be evaluated? For instance, are we not applying “Western” criteria when measuring adaptation and resilience throughout the rest of the world? Can resilience be measured in the same way in very different economic, cultural, political and social settings, or should we acknowledge the fact that since resilience also depends on cultural factors, it can take on different shapes and meanings in different cultural settings?

But the most important criticism addressed to the concept of resilience admittedly comes from social sciences, where the concept’s focus on the individuals and their capacity to “rebound” was denounced as a way to absolve governments from their responsibilities regarding the protection of their populations. In most social sciences-related fields, be it in disaster or climate change studies, and even when focus is placed on

collective entities such as whole societies or groups, resilience is indeed seen as primarily originating from the individuals' capacities to mitigate and adapt to change. As such, the concept of resilience mostly puts the stress on individual responsibilities and capabilities. For many authors, this means that policies encouraging and supporting resilience can be considered as a neoliberal form of governmentality that shifts the burden of adaptation from the collective to the individual (see for instance Joseph, 2013). The resilience "narrative", encouraging individuals to recognize the existence and inevitability of danger, and to be proactive in ensuring their own security and survival, has thus been described as an instrument used by neoliberal governance to enable the subjection of populations (Reid, 2012).

This critique of the concept of resilience applies to all changes and events that endanger individuals as well as collectivities, but it is particularly relevant when applied to natural or man-made disasters, which, as we have seen, have long been put at the heart of discussions on resilience. Feminist and post-colonial analyses of the concept of resilience have notably condemned it for individualizing the consequences of events such as draughts, famines, tsunamis or industrial disasters, which could and/or should have been better prevented or mitigated by authorities, but which are almost always presented as unavoidable "accidents" (see for instance Bracke, 2016; Parashar and Orjuela, 2021). In addition, various scholars have pointed out the discrepancy between public discourses on resilience, which stress the need for local authorities and individuals to adapt their practices in order to be more resilient, and policies which are often designed and decided at the national or even international levels. This has notably been the case of policies related to climate change mitigation (Djoudi et al., 2016, p. S252). In other words, there is an important conceptual and practical gap between the fact that resilience is expected to be mostly performed at the very local and micro level – individuals and their close environment –, and the conceptual frame upon which policies designed to enhance resilience are built.

Following up on this, some scholars have highlighted the fact that approaches to resilience need to take into account how power relations shape not only the issues that individuals and societies face, but also how they are able, or not, to adapt to change. It means, for example, to recognize that climate change is at least partly human-made, but also that power relations and social inequalities have an impact not only on who is affected by climate change, but also on whether and how those affected

by climate change can adapt (see for instance Tacoli et al., 2014, p. 2). In short, recent discussions around the concept of resilience have highlighted the need to underscore the accountability and responsibility of governments and international institutions, in order to counterbalance the idea that resilience and adaptation happen mostly at the individual and local levels.

These recent debates suggest that enhancing resilience can only be done by adopting a multilevel and multifactorial approach, taking into account not only the individuals and their immediate environments, but also collective capacities and dimensions as embedded for instance in political, economic, and cultural factors at local, national and international levels. This systemic and encompassing understanding of resilience opens avenues for bypassing many of the above mentioned critiques, because it highlights how resilience can be the product of individual as well as collective norms and positionings.

3. A Gendered Reading of Resilience: Vulnerable Women and Resilient Men?

One of the main ways in which discussions on resilience have been brought forward is through an analysis of vulnerabilities. The concepts of vulnerability and of resilience are closely linked, although the relation between the two is not always clear in academic and policy-related debates: for instance, should resilience and vulnerability be opposed, with vulnerability considered as a negative trait, and resilience as a positive quality? Or are the two concepts co-constructed? (Manyena, 2006, p. 439). While a focus on individuals' vulnerabilities can reinforce the tendency to individualize the effects of disasters and rapid changes, and to put the responsibility for adaptation on individuals, everything depends on how these vulnerabilities are understood. If they are seen not just as individual traits, but as consequences of the positioning of individuals in the social and economic system, and of their access to power and resources, then an analysis based on vulnerabilities can provide answers to the critiques addressed to the concept of resilience. Building on feminist theory, authors like Tschakert and Tuana (2013) propose, for instance, a relational understanding of resilience and vulnerability, whereby "reciprocal" vulnerability is understood as the ability to affect and be affected by others, while "situated" resilience is always dependent on the specific

context, and on power relations. According to this understanding, “the goal [of resilience] is not fostering invulnerability but finding better ways of encouraging relations between peoples, current and future, and between peoples and places” (Ravera et al., 2016, p. S239).

Gender has increasingly been taken into account in these discussions on the relations between resilience and vulnerability. More specifically, women’s vulnerabilities and capacities for resilience have been the focus of numerous studies, while only a few have looked specifically at men. Examining the relations between vulnerabilities, resilience capacities and gender proves to be particularly fruitful as gender, like resilience, is located at the nexus of individual and collective factors. Gender indeed illustrates how an individual factor (for instance, identifying as a man or as a woman) can be both treated as a personal issue and associated with powerful cultural norms. As one of the most important aspects of personal identity, gender can be a strong determinant of one’s social and economic positioning, and of one’s access to power and resources. Gender is often directly correlated to a differentiated access to decision-making processes, as well as other resources such as money and neo-patrimonial networks, which are essential for determining individual resilience.

Discussing how gender can have an impact on the perceptions of risks and on individual levels of vulnerability, belongs to a now well-established tradition in disaster studies (see for instance Alston, 2021). Some authors have underscored the fact that the perceptions of risks can be gendered, and that women’s risk perceptions tend to be given less attention than those of their male counterparts. As Nelson and Stathers (2009) show in the case of Tanzania, this sometimes leads to an increase in women’s vulnerability. Due to their different positions in the social, economic, cultural and political systems, men and women can hold different perceptions of risks, and of what should be protected and/or preserved should a crisis or disaster arise. In addition, they also need differentiated forms of support to build their resilience, and they can experience adaptation and mitigation interventions in different ways (Fisher and Mohun, 2015). In parallel to disasters studies, and echoing research on the importance of the everyday for understanding and measuring resilience, recent studies focusing on Global South countries have also shown how women’s specific vulnerabilities and adaptation patterns are often visible outside of disasters and extraordinary events, and embedded in everyday matters and in daily routines (Lenette et al., 2013).

It is probably through a climate change lens that the nexus between resilience and gender has been explored the most frequently. This strand of research builds on the idea that the impacts of climate change are gendered – in the sense that they tend to affect men and women in different ways (Detraz and Sapra, 2021). Some studies also show that climate change is likely to specifically affect women in low-income groups, rather than to affect all women in the same manner (Nirmala and Venkateswarlu, 2012). Unfortunately, many of the studies looking at the links between gender and climate change limit their gender analysis to a men versus women dichotomy, and pay little or no attention at all to issues of masculinities and of femininities, and to how these structure power, as well as social and political relations (Djoudi et al., 2016). As explained by Thompson-Hall, Carr and Pascual (2016), this tendency to rely on analyses of the sex-disaggregated gender categories of “men” and “women” is particularly salient in vulnerability and resilience studies. What is surprising is that this simplistic understanding and use of gender disregards the existing evidence demonstrating the importance of other factors such as socio-economic status, age, marital status, etc. to explain how people are affected by “external” events. Mirroring a trend that is still very much present in other fields which pretend to mainstream gender, the meaning of gender is here narrowed down to its simplest statistical men/women division. One of the consequences of this simplified analysis is that it tends to paint the image of a “feminization of vulnerability”, and to foreground a discourse, within climate change studies, about the victimization of women. This discourse ignores and silences the fact that men and women are far from united and consistent groups, and that depending on their social status, some men are far more vulnerable to climate change – or to other disasters – than some women.

This is not to say, of course, that the men/women division does not matter for understanding vulnerability and adaptation to climate change, or that women are not more likely, on average, to be affected by it. But it is important to be aware of the important consequences that this feminization of vulnerability has at the policy level. In particular, it reinforces “a tendency to frame the discussion on women being especially vulnerable to broader environmental and structural forces, rather than focus on women and other marginalized groups being active agents for transforming and adapting to change, collectively, and from the margins” (Ravera et al., 2016, p. S238). Instead of empowering women, the idea that women are systematically more disadvantaged and vulnerable than men

to the consequences of climate change reinforces patriarchal narratives whereby women are described as weak and in need of (masculine) protection. This narrative associates women to vulnerability, while men are more likely to be associated with the ideas of resilience and agency. As we will see in the following section, this men-versus-women analysis overlooks the multiplicity of other factors, like socio-economic status, caste, religion, education and so forth, which, together with gender, determine levels of vulnerability and capacities for resilience. This type of analysis also feeds essentialist understandings whereby specific qualities or attitudes are attached to men and women, for instance the idea that women would be more environmentally conscious than men (Ravera et al., 2016, p. S240).

Not surprisingly, this Manichean understanding of the relations between vulnerability, resilience and gender, has far-reaching effects that can be seen both in the issues on which research focuses, and in policies. Djoudi et al. note, for instance, that in climate change research, gender is addressed less frequently in studies on mitigation than in those on adaptation: “The lack of articles addressing gender issues and climate mitigation may be due to the prevailing notion in the mitigation debate that scientific and technological solutions are generally considered to be a male domain, often at the expense of social and behavioural considerations” (2016, p. S252). What this means is that women tend to be naturally treated as having adaptation skills, especially at the local and micro level, whereas men are supposed to be particularly competent at mitigation techniques and policies, at the local, national and international levels (Djoudi et al., 2016, p. S257). As we have seen, this translates into a multiplicity of publications focusing on women’s adaptation skills and resilience in both “everyday” and mundane matters (see, among many others, Ear, 2017; Molesworth et al., 2017; Smucker and Wangui, 2016). In parallel, most publications looking at mitigation policies at the national and international levels, namely in the field of climate change studies, are “gender neutral”, meaning that they focus on institutions usually led by men. At a policy level, the consequences of such discourses are staggering. As explained by Drolet et al.:

“There is a significant risk that post-disaster responses unconsciously act to reinforce existing gender inequalities – for example, by distributing resources to the male head of households, by provisioning traditional male occupations and ignoring women’s small business enterprises, by seeking advice and decision-making support only from male leaders, and

by assuming that cultural constraints are fixed and unchangeable” (2015, p. 438; see also Alston, 2021).

Although this statement should be nuanced as it overlooks the fact that an increasing number of programs specifically target women and girls (in the case of Tanzania see for instance Irish Aid, 2018), it is a clear reflection of men’s and women’s positionalities and access to power, men being typically more likely to hold policy making positions. Such a trend reinforces existing stereotypes about qualities respectively attached to men and women, and in particular about their respective capacities in times of crises. It feeds the idea that, at such times, men are the best placed to make decisions, while women’s specific vulnerabilities limit their adaptive skills to the local level. As they echo deeply held cultural assumptions, these stereotypes are rarely challenged and structure policy responses to brutal changes and disasters. Interestingly however, the ways in which the recent Covid-19 pandemic was managed across the world directly contradict such representations. Recent studies have shown, for instance, that the outcomes of the pandemic were systematically better managed in countries led by women (Garikipati and Kambhampati, 2020). In spite of this, the existing literature on resilience tends to present mitigation and management of disasters and change as a masculine quality, thereby complementing the above-mentioned feminization of vulnerability.

Studies that adopt a broader understanding of gender, and of how vulnerabilities are gendered, paint a more nuanced picture. They emphasize various factors, from women’s lack of access to power, resources, and decision-making structures, to the fact that agricultural practices and crop choices are gendered (Thompson-Hall, Carr and Pascual, 2016, p. S374). The Tanzanian “National Strategy for Mainstreaming Gender in Climate Change” (United Republic of Tanzania Vice President’s Office, 2013, p. 8) reminds us for example that “gender inequalities intersect with climate risks and vulnerabilities. Thus, women’s historic disadvantages, their limited access and control over decision-making, environmental and economic resources, and their restricted rights, make them more vulnerable to climate change”. In addition, women’s unequal access to land and land tenure matters particularly in climate change and disaster studies, as women in many countries are still being barred from access to land tenure. This is especially problematic for widows, who are likely to be denied access to land after the passing of their husband, and therefore to lose the capacity to feed themselves and their families. This gendered vulnerability is considerably heightened in the context of climate change

and/or of natural disasters. Bizoza (2019) shows for example that the economic resilience of rural women in the context of climate change is strongly dependent on land access. His study on women in the G5-Sahel countries in West Africa demonstrates that women's capacities for adaptation and resilience to climate change and other natural disasters is heavily dependent on other often neglected factors, such as access to production resources, to small scale irrigation, or to agricultural mechanization. Such patterns are visible in the case of Tanzania too, as demonstrated by Moyo (2017).

On the whole, these studies show that women's vulnerabilities and capacities for resilience can often be explained by cultural norms and traditions, rather than by their belonging to the "women" category. By taking the context into account, this encompassing, and more accurate, understanding of gender highlights the fact that gender is not just a quality possessed by individuals, but that institutions and norms themselves can be gendered, especially when they are informal and reliant on traditions (Ravera et al., 2016, p. S242). Such a broadened understanding of why gender matters in resilience studies is critical for appreciating how individuals, but also communities, are vulnerable to rapid changes and disasters, but also whether and how they can adapt. Taking stock of this gendered and situated knowledge is the first step towards building individuals' and communities' resilience.

4. Looking at Vulnerability and Resilience through an Intersectional Lens

One of the ways in which the above-mentioned limits of a gender analysis can be bypassed is by relying upon an intersectional approach. First developed by the black feminist scholar Kimberlé Williams Crenshaw (1991), the concept of intersectionality initially aimed at critically assessing the intersection between race and gender, as a way to better understand and analyse the specific patterns of oppression experienced by women of color in the United States. Its hermeneutical power has since then expanded to include multiple aspects of social identity, that it explores in a non-essentialist and context-specific fashion (Marfelt, 2016). The concept of intersectionality both expands feminist theorizing and criticizes it. It indeed maintains a certain focus on gender as a key analytical dimension, but looks beyond it, at other identity aspects such

as class, caste, age, education, religion, race/ethnicity, sexual orientation, and so on. The major objective of an intersectional approach is to understand how these various identity dimensions produce and/or strengthen inequalities between individuals (MacKinnon, 2013). In doing so, it pushes forward feminist theorizing of power structures and inequalities: it notably shows that weaved with gender, elements such as age, race/ethnicity, marital status, generation, socio-economic factors, etc., play a major role in understanding inequalities between individuals. It also provides insights on whether and how individuals can (or cannot) adapt to change, and develop (or not) agency and resilience (Marfelt, 2016).

The concept of intersectionality seems to be particularly relevant for advancing resilience studies, because even if it builds on individual experiences, it can also be applied both to inter-individual and collective situations. For example, Lutz (2015, p. 40) has shown how an intersectional approach could be used to analyse power relations and inequalities at the interpersonal level, but also at the level of local and national institutions, or at the cultural level, in discourses and symbols. One of the basic principles of an intersectional approach is to take the context into account, and to refuse broad universalizing and generalizing methods, which tend to homogenize and essentialize groups and societies. As a consequence, an intersectional approach does not look at collective entities as defined only by one characteristic, say gender or socio-economic status, but focuses on groups as defined by the intersection of different identity characteristics, for instance working-class widows – the intersection being here at the nexus between socio-economic status, marital status, and gender. By looking at different identity aspects and not just at gender, the concept of intersectionality helps to understand how individuals' and groups' social, cultural, economic, etc., positionalities make them more or less vulnerable to disasters and/or to rapid changes. It also helps to comprehend whether these positionalities can explain and/or foster their resilience. In a nutshell, an intersectional approach helps to understand specific experiences beyond simplifications deriving from an uncritical use of gender analysis.

Applying an intersectional analysis to study agrarian settings, Thompson-Hall, Carr and Pascual (2016, p. S374) show for example that gross generalizations assuming that only men are farmers, or that women are always the poorest and the most vulnerable, hinder our understanding of how vulnerabilities are created and reproduced: "Intersectional framings, however, give deeper attention to multiple facets of farmer identities

and the way these facets come together to influence vulnerability of different people” (2016, p. S372). An intersectional analysis allows us to identify and highlight different contextual elements, such as social, cultural or situational constraints, that can favour or hamper adaptation and resilience. This requires adopting an interdisciplinary approach, which goes far beyond environmental studies, geography or political ecology, to encompass sociological, economic, legal and anthropological methodologies, among many others. In turn, this multidisciplinary approach can help to devise broad support programs, to identify opportunities across multiple fields and reinforce adaptation capacities of groups as well as of individuals.

But it is perhaps in its ability to unveil and dissect the structures and systems of power that are embedded in, both formal and informal institutions, that the concept of intersectionality would be the most useful in resilience studies. As we have seen in the previous sections, there is a lingering tendency, in resilience and vulnerability studies, to consider resilience as an internal trait that individuals and systems either possess or lack. Against this assumption, recent studies have highlighted the fact that resilience and vulnerability are in fact relational and situated (see for example Tschakert and Tuana, 2013). Because an intersectional approach sheds light on how different identity traits interact and sustain inequalities and relations of power, it is ideally designed to unpack the relational dimensions of vulnerability, adaptation, and resilience. As such, intersectionality, as both a concept and a method, demonstrates that addressing vulnerability and fostering resilience cannot be done without addressing power relations too. As explained by Tacoli et al. (2014), when trying to improve women’s resilience capacities, it is important to take stock of the underlying issues of the social and economic inequality that these women face, as well as the fact that women are not a homogeneous group.

Without such an in-depth analysis, the risk is that women in the Global South are simply instrumentalized by policies designed elsewhere, and considered “as mere resources” (Tacoli et al., 2014, p. 3). So, instead of being empowered, women would be essentialized as a group possessing consistent and unchanging qualities. For instance, describing women as “closer” to nature, or as having “better” adaptation capacities than men in face of climate change, is likely to turn them in the eyes of international donors into *targets* rather than real *actors* and *decision makers* of climate change mitigation policies. Such processes have been quite common during the past decades, and have been observed in other fields and/

or for individuals defined along different identity traits. For instance, LGBTQI+ individuals, due to their alleged tolerance and modern nature, have often been specifically targeted in international development and democratization programs, without being systematically associated with their design (Klapeer, 2018, p. 186). Likewise, in the peacebuilding field, highlighting what are perceived as ideo-typical women's roles in building peace at the local level as well as their alleged "peaceful" disposition, participates in turning women, especially from the Global South, into "objective" allies of liberal peacebuilding (Hudson, 2012). This is especially the case because the stress that has been put on the role of women in everyday and local peacebuilding, and on norms regarding gender equality, echoes international discourses and practices on liberal peacebuilding. These assumptions build on the idea that women's peace work is likely to be similar across very different settings and contexts, ignoring feminist insights into how gender and gender roles are heavily dependent upon the specific context, and how, following the concept of intersectionality, we should be wary of generalizing women's roles and positionalities.

In addition, because it unveils and dissects the power relations and inequalities that lie at the very core of the social fabric, an intersectional approach provides an articulated and consistent answer to one of the main weaknesses of the concept of resilience. As we have seen, one of the major critiques addressed to the concept of resilience is that it tends to exonerate authorities from their responsibilities towards their populations, and to shift the burden of adaptation towards the individuals. An intersectional approach allows us to deepen and refine the analysis of vulnerabilities that explain how individuals can, or cannot, develop resilience. In doing so, it demonstrates that resilience cannot be developed or improved without tackling inequalities between individuals and groups, and without active policies for mitigating power imbalances. It identifies specific intersections (for instance, gender, socio-economic and marital status) that need to be paid attention to and addressed in order to improve resilience capacities. In that sense, an intersectional approach can provide a path not just for *understanding* whether resilience happens or not, but also for *facilitating* resilience by addressing visible and less visible injustice and inequalities. In that sense, intersectionality offers options for addressing the main challenge to effective adaptation, that is a lack of access to resources, social networks, information, and to institutions that allocate resources needed for adaptation, as shown by Smucker and Wangu (2016) in the case of the Mwangi District in Tanzania.

However what an intersectional approach also reveals, is that the factors constitutive of vulnerability and/or resilience are co-constructed, in the sense that they mutually influence one another. This is what Djoudi et al. explain: “Vulnerability and adaptive capacity are dynamic in nature, and changes affecting them at one level can have profound and hidden implications at other levels” (2016, p. S248). What this means in policy terms is that any approach to reduce vulnerability and/or to enhance adaptation capacities has to take this interdependence into account. For instance, if we provide microcredit and access to land to widows in the Great Lakes Region of Africa without tackling discriminatory customs and traditions, will the resilience capacities of the concerned widows be significantly be improved? Existing research indeed shows that external interventions are often resisted and eventually ineffective when they clash with existing customs and traditions (see for instance Bourbeau and Ryan, 2018). The question is therefore not only to foster a more inclusive development process in order to increase adaptation and resilience capacities (Cohen et al., 2016, p. S319), but also to take into account the specific cultural, social and political contexts in which vulnerabilities are created and sustained.

In turn, this draws our attention to another issue raised in the first section of this chapter, that of how resilience, vulnerability and adaptation are defined in different cultural spaces. It is indeed important to keep in mind that “Western” notions of these concepts, which are particularly dominant in research literature, might differ significantly from how specific communities and groups understand them, including within the “West”. More specifically, what constitutes adaptive capacity, resilience and the capacity to innovate, might be defined and attached to different values from place to place, and even from a local group to another (Cohen et al., 2016). This can explain why, even in the same country, individual adaptation can take different shapes and routes, depending on the group the individual is part of. Tacoli et al. (2014) show, for example, that contrary to commonly held stereotypes, women are often not passive victims of climate change. Their adaptation and resilience strategies are shaped by specific cultural and gender norms, and by social relations, which vary from one social and/or ethnic group to another. In other words, the various identity dimensions that matter in intersectional analysis do not have a fixed meaning across time and space, and identity aspects such as gender, generation, marital status, and so forth, will entail different types of cultural expectations from place to place, but also from one social, religious or ethnic group to another.

Interestingly, research in various fields, namely in environmental studies, or in peace and conflict studies, has shown that important economic or political shocks, natural disasters, as well as wars and conflicts frequently entail a disruption of social structures and of traditional norms. They thereby can open up options for changing the constraints under which individuals and groups operate. For example, in contrast to many publications highlighting the plight of women during and after wars, some recent research shows that conflicts, and the widespread adjustments they usher, can have a strong impact on opportunity structures for women. Rapid changes can provide them with access to the political scene, or to employment fields from which they were so far barred (see for example the case of Nepal, Yadav, 2020). Similarly, some studies show that natural disasters such as drought can affect the social structures to such an extent that socially disadvantaged women have much more freedom in choosing to engage in new activities, especially if and when men from their group have migrated. In Mali for instance, women who belong to disadvantaged socio-economic groups can engage in new income-generating activities outside of the house that are forbidden by social norms to higher social status women (Tacoli et al., 2014, p. 4). As such, women from lower social classes sometimes seem to have more adaptive capacities than more privileged women, for whom traditional cultural norms and models continue to apply, regardless of the advent of a crisis (Djoudi et al., 2016, p. 255).

Two major lessons can be drawn from such studies building on an intersectional approach: first, that patterns of adaptation and resilience do not necessarily follow obvious paths – for instance, those who are socio-economically privileged are not necessarily more resilient, because their capacity for resilience depends on other factors, such as gender, geographical location, and so on. In parallel, being a member of a group that is on average disadvantaged, such as being a woman, necessarily entails higher vulnerability and lesser resilience. This is because, depending on the context, some other identity factors might matter more, such as socio-economic and marital statuses. Second, these studies suggest that resilience-building policies which do not take intersectionality into account might actually do more harm than good. Just as vulnerabilities are often the product of multiple superimposing positionalities (for example, being a woman + belonging to a sexual minority + belonging to a discriminated religious group + being poor), resilience is the result of multiple complex, context-specific, and interrelated factors. This lesson

learned might not be good news for those looking for quick-fix solutions, but it undoubtedly paves the way for more efficient interventions and policies.

5. Some Conclusions

In the introduction, we underscored the necessity of coming up with a more nuanced and precise understanding of the concept of resilience. While an intersectional approach might not always be applicable to fields that do not use social sciences tools, we suggest that it can provide a consistent, critical, and evidence-based grounding to the concept of resilience, which some studies lack. By underscoring the complexity of factors lying behind vulnerabilities, as well as adaptation and resilience capacities, an intersectional approach opens up avenues to design more efficient policies for supporting the resilience of both individuals and collectivities. Besides, by foregrounding issues of power and inequalities, it provides answers to the most strident critiques addressed to the concept of resilience.

However, it is important to remember that depending on the matter at hand, resilience is not always desirable. Berkes and Ross (2013) note, for instance, that some social phenomena, such as the loss of livelihoods for a local community, can call for a transformation of the local economy rather than for its resilience. They also point at the fact that these local transformations (rather than resilience) “may enable resilience at higher levels” (Berkes and Ross, 2013, p. 16). This insight is fundamental as it underscores the fact that no individual, group nor local community and state, is completely isolated, and that the potential resilience of each of these entities is always the product of complex and multi-levelled interactions with others.

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Chapter 11

Minority Participation of Women in Economic Sectors in Tanzania: Is It a New Norm?

THEOPHIL MICHAEL SULE

1. Introduction

Women's participation in economic sectors is one of the current development debates. According to Ellis, Blackden, Cutura, MacCulloch and Seebens (2007), women play a significant role in the Tanzanian economy. In fact, women constitute 82 % of Tanzania's labour force. According to the National Bureau of Statistics (2014), there were 25.8 million working age individuals in Tanzania in 2014. 86.7 % of the population was economically active; of which women were the majority with 43.8 % compared to men with 42.9 %. The idea is amplified by USAID (2019) indicating that the agricultural sector in Tanzania employs 70 % of the population; out of whom 80 % are women. Moreover, Mgeni and Bangi (2014) affirm that the sector contributes 24 % to the gross domestic product (GDP). Isinika, Mibavu and Van Sickle (2016) add that the sector produces 80 % of the country's food supply. Moreover, the Minister of Finance and Planning confirmed during his budget speech for the 2018/2019 financial year that agriculture employs 66 % of Tanzania's total population. It is thus evident that women dominate the agricultural sector; a sector which plays a substantial role in Tanzania's economy.

Unfortunately, according to Fox (2016), the agricultural sector is the least productive of all sectors. The diminishing budgetary sector's support is linked to Tanzania's low agricultural productivity. Oxfam and the ANSAF Policy Forum (2017) both confirm that in the 2010/11 financial year, Tanzania allocated 8.1 % of its budget to agriculture as opposed to 5.3 % in the 2016/17 financial year. In contrast, women's participation in other sectors such as the industry and service sector is marginal.

Lawuo (2016) further notes that women's participation in mining is quite discouraging in Tanzania: they are only a few in technical, professional and managerial positions. According to Daley, Lanz, Mhinda, Driscoll, Ndakaru, Grabham, Kereri and Mbise (2018), the Ministry of Energy and Mining records of 2012 indicate that there were only 12,000 people employed in large mines in Tanzania; out of whom only 10 % were women. This statement is supported by ILO (2006) stating that women are mostly employed in supporting positions such as secretaries, caretakers, operators, and security guards. Regarding the service sector, there is also an obvious disparity between women and men in employment. Idris (2018) discusses male and female disparity in employment in Tanzania. He elaborates that in the government services, 58 % are men against 42 % women. In parastatal organizations, men constitute 82 % of the work force against 18 % for women. In other private institutions, 72 % are men whereas the remaining 28 % are women.

Service and Tertiary economic sectors tend to significantly exclude women. However, it is unfortunate that their exclusion is taken for granted in the Tanzanian society and considered as a *new norm*. This norm is socially constructed. This paper grapples with the problem of women's exclusion in various economic sectors in Tanzania as well as its impact on the national development agenda. It examines the extent of women's participation in economic sectors in Tanzania and highlights the scope of women's exclusion in various economic sectors of the country, more particularly in the agricultural, industrial and service sectors. The author has methodologically resorted to library research to analyse the situation and to suggest a way forward. The paper used the *Human Development Theory* as a theoretical perspective to guide its argument. Through the use of these methodological and theoretical perspectives, this paper argues that despite their participation in the sector of development, women are excluded in various economic sectors in Tanzania, a situation that undermines their potentials in the country's economic development.

The argument of this paper will be developed in the following order: firstly, the introductory section. Secondly, the theoretical perspective, also referred to as the Theory of Human Development. Thirdly, it discusses women's participation in economic sectors in Tanzania. The section is divided into three subsections: the agricultural, the industrial and the service sector. Section four discusses factors excluding women's participation in the economy in Tanzania and section five discusses women's

contribution to Tanzanian economic sectors. Section six is the conclusion, and section seven includes recommendations and a way forward.

2. Theory of Human Development and Women's Participation in Economic Sectors

Many scholars have discussed the significance of theory in studies. Creswell and Creswell (2018) assert that a theory is important in a study because it informs the study and provides an orienting lens. This view is supported by Ary, Jacobs, Sorensen, and Razavieth (2010:14) that “a theory organizes the findings from many separate observations and investigations into a framework that provides explanations of phenomena”. Therefore, this study uses the Theory of Human Development to organize and discuss issues mentioned in the study.

The Theory was developed by Welzel, Inglehart and Klingemann in 2003. It states that Human Development is a function of socio-economic development, rising emancipative values and effective democracy. The authors further note that these three elements go hand in hand. The socio-economic element is an augmentation of many processes; the main ingredients entail autonomy over resources which enhance the access to resources through increased income, skills and information resources valuable for physical and intellectual needs. The author's further remark states that socio-economic development can reduce impediments on human choice and increase their resources. Authors were inspired by many scholars on the concept of choice, particularly by Amartya Sen (1999) in his popular book “*Development is freedom*”. Sen's (1999) understanding on development goes beyond common understanding of development—which is summarized as growth but insists that development is a choice; it is the ability of people to select their interventions.

The theory's second component explains that there has to be an emancipative cultural choice, which means promoting people's needs and giving them free choice in controlling their lives. Its last component is about democracy, which authors state as interwoven with human choice. According to them, it formalizes legal rights which importantly assure people's choices on private and public matters. Democracy, for them, is divided into effective and formal democracy. The former is a continuation of people's effective rights which is prescribed as the most ideal type of democracy.

However, this theoretical perspective has some shortcomings despite its numerous potentials. One of its weaknesses is that it takes for granted that a society which is organized along democratic lines will observe both public and private rights that are essential for effective democracy and ultimately enhance human development. It is possible that even the democratic states are ruled by corrupted elites. This situation does not prevail in many countries because there is a direct correlation between emancipation and the advanced level of education in these societies, which has also increased the access to resources required for human development.

Why selecting this theory to guide the study? Despite the aforementioned weakness, the author has selected this theory because of its wider scope and application in his area of focus. The theory seeks to comprehensively discuss the extent to which the socio-economic conditions, political structures and regime institutions influence human development and affect the level of participation of women in Tanzania's economic sectors. In a nutshell, for effective women's participation in economic sectors in Tanzania, a lot needs to be done as elaborated in the following chapters. In the following subsection, the paper addresses women's participation in the different economic sectors in Tanzania.

3. Women's Participation in Economic Sectors in Tanzania

3.1. Women in the Agricultural Sector

According to Osorio, Perci and Di Battista (2014), women in rural areas of Tanzania are mostly a marginalized group. They do not have decent work, income generation activities because of the several limitations over access and control of resources. Moreover, they lack education, training, access and control of land as well as decision-making. The authors further state that, despite marginalization, women play a substantial role in farming in Tanzania: 90 % of rural women and 85 % of rural men are actively engaged in farming. This simply means that agriculture is the mainstay of the country's economy. Furthermore, Idris (2018) confirms that the monthly female income in the agricultural sector is about half compared to the one of their male counterparts. Despite their potential role in the agricultural sector, they have limited access to the resources required for agricultural activities compared to men. Osorio et al. (2014) estimate that in Tanzania, about three quarters of

landholders are men. Women own small plots used for subsistence farming rather than for commercial farming. Normally, what they produce is for family use and consumption; unlike most men who are engaged in commercial farming. It is still assumed that whatever men produce is for sale and contributes to their financial stability.

In amplifying the substantial role of women in the agricultural sector, Njuki and Sanginga (2013) assert that women are the backbone of smallholder agriculture. This means that, to a great extent, smallholder agriculture mainly depends on women for food production and security. For this reason, the role of women in the agricultural sector is not to be under-estimated. Ellis et al. (2007) confirm the significance of women in the agricultural sector by stating that, in Tanzania, 82.4 % of women were employed in the agricultural sector as opposed to 80.2 % of men. Recent data from URT (2017) reveal that women account for 52 % of the workforce in the agricultural sector compared to 48 % of men. The figures show that women are the major players in the sector and are truly feeding both families and societies.

Sachs, Barbercheck, Brasier, Kiernan and Terma (2016) summarize that women across the world are front liners in groundbreaking new agricultural fields and early adopters of farming innovations and marketing farm products. This stand is supported by Buiten, Rahbari, Fordham, Crebo-Rediker (2015:13) who state that women can serve as growth accelerators when they are provided equal opportunities in the labour force. The authors further note that the G20 Summit held in Brisbane in 2014 “embraced women as drivers of growth”. Based on this fact, women need to be placed at the centre of agricultural production for both family and national development, something that is barely done in Tanzania.

More importantly, Osorio et al. (2014) confirm that at the global scale, 48 % of females as opposed to 34 % of male workers in rural areas have multiple occupations. The authors observe that women are more engaged in unpaid work as their second occupation. However, multiple occupations are a double coincidence of bad luck to most women in rural areas. Subsistence farming being the first occupation brings meager earnings compared to commercial farming. The second occupation is family duties which hardly contribute to women’s income.

Unfortunately, unpaid work is not reflected in the national economy and is also not appreciated as a woman-related contribution. According to FAO, IFAD, ILO (2010), FAO (2011), and the African Development

Bank (2015) women are important players in the economic growth and poverty reduction initiatives of various countries. They change their occupations according to different contexts. On the one hand, they are farmers when working on their own plots of land and are unpaid workers when working on family farms. On the other hand, they are paid or unpaid labourers when working on other farms.

When working at home, caring for family members, they are family caretakers. Finally, they are entrepreneurs when engaged in business. Therefore, their occupation changes depending on the context and is value-loaded. For example, a farmer is respected as the one producing food for the community needs. This simply means that women, when working on their own farms, are respected by society.

It is a pity that women are unpaid when working on family farms. This means that their work and efforts go unrecognized by their families, by society as well as by the government despite ensuring household food security. Again, it is a fact that unpaid work is not reflected in the national income (Antonopoulos, 2009; Hirway, 2015). When working on other farms as paid or unpaid workers, they are labeled as labourers. Just like any labourer in many societies, women have low standing and are not given much respect. Moreover, when women engage in family duties, society considers them as caretakers which falls within their common roles. Fox (2016) categorizes such activities as productive, reproductive, decision-making and civic. At this point, women are obliged to take care of the family not by choice but because they are bound by social norms. Moreover, when engaged in business, they are entrepreneurs which is actually, to a certain extent, respectable. However, the ADB (2015) reveals that the majority of women's businesses are found in the informal sector, characterized by low value-added occupations and meager financial returns. Most definitely, this decision to work in the informal sector could be associated with an insecure land tenure system. ADB (2015) affirms that the situation reduces women's ability to access financial services as land is considered to be one of the collateral aspects in many countries, including in Tanzania.

In the same vein, the African Development Bank (2015) states that most of the Sub-Saharan African (SSA) countries recognized customary land tenure which operates along land law as part of the structural system. In most cases, the customary law excludes women in controlling and owning the land, which is an important asset for the agricultural sector, a standard for the human livelihood system and a symbol of respect

in society. Similarly, Leavens and Anderson (2011) assert that 80 % of Tanzania's communities are mainly patrilineal and respect and apply customary land tenure systems on settling land matters. It is unfortunate that the system discriminates against women favouring men on matters of access and land ownership. Likewise, the African Development Bank (2015) elaborates that in Africa women constitute two thirds of the agricultural labour force and are the major producers of food. However, they are constrained from accessing agricultural inputs and land, as well as end up having low yields compared to their male counterparts. At this juncture, it is an undeniable fact that the customary land tenure system in Tanzania affects the household and national economy by undermining women's role as major "economic actors and engines of growth" (FAO et al., 2010: x).

Moreover, Isinika and Mutabazi quoted in Leavens and Anderson (2011) state that about 82 % of land in Tanzania is recognized through customary land ownership. This means that women gain access to pieces of land through marriage and the right to land ceases if they are divorced or widowed. Sadly, customary law imposes that the acquired properties be written in the husband's name and fully belong to him. On the contrary, women's contribution normally falls under the care economy category (DAC Network on Gender Equality, 2011). The latter is principally unpaid work which, in most cases, is a responsibility for women and girls. In the eyes of Tanzania and its economy, this work has no financial contribution to the family economy. This situation is the main reason why divorced or widowed women experience difficulties when trying to obtain their shares in the family property after a divorce. This segregating and blind law needs to be revised; and again, Tanzania needs to incorporate unpaid work in the GDP so that it can be properly reflected in the national economy.

Antonopoulos (2009) amplifies the benefit of incorporating unpaid work in the GDP saying that it actually accounts to 20–60 % for some countries which incorporate unpaid work in their GDP. For this reason, it is important for all countries, including Tanzania, to incorporate unpaid work in their final accounts and economies. Therefore, based on the above discussion, it is evident that the agricultural sector is the backbone of the Tanzanian economy; and that women play a significant role despite facing various hurdles and setbacks. Indeed, women are also victims of marginalization in the agricultural sector. The failure to effectively support women by ensuring land access, ownership and control

is evidently taken as *a New Norm in Tanzania*. This leaves us with the following questions: When will the government address these constraints in order to promote women's participation in the sector and economy at large? Will the norm of placing women on the margins of the agricultural sector never change despite their substantial contribution ?

3.2. Women's Participation in the Industrial Sector

After the women's participation in the agricultural sector which was discussed in the previous paragraph, this part focuses on another component: women's participation in the industrial sector. In this paper, the industrial sector covers mining, manufacturing and construction. According to BSR (2017), in Tanzania, 90 % of minerals are not yet exploited. Morisset and Wane (2012) elaborate that from 2000 to 2012 Tanzania's GDP in the mining sector averaged 10.2 % and was considered as one of the fastest growing sectors besides contributing to about 50 % of the total export in 2011. Furthermore, according to the IMF (2011), mining in Tanzania falls under small and large scales. Before 2007, it grew 15 % annually but unfortunately declined to 2.5 and 1.2 % from 2008 to 2009 due to a decrease in diamond and gold exports. Additionally, PWC (2014) asserts that mining is a male industry in South Africa whereby women comprise 5–10 % of the workforce in the mining sector. The data shows that mining in South Africa is one of the industries with the lowest women's employment rate. One can definitely say that the phenomenon can be considered as part of women's segregation in Africa's economic sectors. According to UNCTAD (2008) quoted by Magai et al. (2011), approximately 80 % of Africa's resources are primary commodities. There was hope that mining could perhaps provide employment for African citizens. However, the hope of having a substantive impact on aggregate employment because of the capital-intensive nature of the sector faded.

More importantly, Tanzania is said to have abundant mineral resources which are essential for its development (Amu, 2005; Magai, 2011; Lawuo, 2016). Moreover, according to ILO (2006) as quoted in Lawuo (2016), Tanzania's mining activities are man-dominated, and women's participation is insignificant. In addition to that, various transnational companies are favourable to men. Lahiri and Macintyre (2006) posit that poor working conditions in the mines have led to occupational identity—mining is identified as a man-dominated field expelling women

and rendering their work invisible. It is a similar scenario within the western popular culture whereby a miner takes a special place in society as an icon. The author points out that the exclusion of women in the mining field is supported by traditional beliefs and laws.

Similarly, some modern mining companies provide low paying jobs to women such as plant operations and driving. Women in the mining industry are majorly found in small artisanal mining. Placing women in informal sectors is part of their segregation in most developing countries. Lahiri and Macintyre (2006) (as cited in Lawuo, 2016) add that the low women's participation in the mining sector is attributed to institutional and cultural factors that hinder women from accessing and participating in mining activities, as well as traditional educational bias which discourages women from studying certain courses such as engineering, mining and geology. These professions were only regarded traditionally as a male-dominated area of study. According to Lawuo (2016), there are very few women in technical, professional and managerial positions within the mining industry in Tanzania. Moreover, ILO (2006) states that women tend to be employed in low cadre positions: secretary, caretaker, operator, security guard – positions labelled by most employers as “appropriate jobs for women” (p. 7). Lawuo further posits that women encounter difficulties having a career in the mining sector because of the delicate balance between their private and professional life. Amu (2005:35) explains it well by saying that juggling between a good career and personal life is “to combine 3-in-1 profession, being a career woman, a wife and a mother”. In Tanzania, as elsewhere in the world, the sub-sector has inflexible working conditions such as remote working sites and unfavourable working environments for women including a lack of childcare facilities. A situation which compels women to seek jobs in the informal sector with flexible and easy working conditions to combine their three above-mentioned roles equally despite their low wages.

In terms of the manufacturing sub-sector, URT (2017) explains that women are a minority. The sector accounts for 2.6% of women's employment versus 3.6 % of men which follows the same pattern in the field of construction with 4 % of men's employment against 0.1 % of women's employment. These trends in these two sub-sectors under the industrial sector imply substantial disparity. This disparity is clearly associated with women's level of education compared to the one of men – as these fields require advanced education and experience. The URT (2016) confirms that the women enrolled in tertiary education in 2015 and 2016

amounted to 33.7 %. This data shows that there are very few women at a higher level who specialize in areas such as manufacturing and construction as a result of the bias towards women entering technical and leadership positions in many developing countries. This trend typically shows that there is a women's minority in this important sector of the economy. Thus, the marginal women's participation in the industrial sector indicates that the Tanzanian society considers this situation as normal, which I refer to as a new norm in this work.

3.3. Women's Participation in the Service Sector

Having discussed women's participation in the agricultural and industrial sectors in Tanzania, the author now discusses in detail women's participation in Tanzania's service sector – also known as the tertiary sector. According to Schafran, Acuto, McDonald, Morales and Akyelken (2018), the tertiary sector is service-oriented and entails legal services, hospitality, wholesale, retail and financial services. Moreover, according to the URT (2018), the service sector is the leading sector in the Tanzanian economy. It contributes 40.2 % to the country's Gross Domestic Product (GDP). In contrast, the URT (2017) comments that in Tanzania women's participation in the service sector is skewed towards wholesale and retail, which accounts for 12.8 % of women's employment versus 12.4 % of men's employment. A similar trend prevails in the human health and social work sub-sector, whereby these sectors account for 1% of women's employment against 0.7 % of men's employment. Presumably, the sector's distribution fails to match the traditional system of woman's work such as cooking, the fetching of water and caring for the children. Moreover, according to Idris (2018), there is also segregation in Tanzania's female employment as there are fewer employed women in formal and public services than men. In other words, women are more likely to be employed in the informal sector which is less secured and offers a lower financial status. This discrepancy is caused by many factors which range from the level of education amongst women and pressure from the social system which considers it to be a norm for women to care for their family at the expense of their career. This is further elaborated by Montenegro and Patrinos (2014) who state that the average attendance to schools for girls is highest at the primary level education in Sub-Saharan Africa with 17.5 % of girls of the given age attending against 12.7 % for the secondary level and 21.3 % for the tertiary level.

Thus, by investing in female education, it is likely to widen opportunities for women in the sector, a situation which is currently missing in many developing countries, including in Tanzania.

Based on the facts stated earlier, it can be argued that the underlying factor for poor women's participation in the sector is attributed to low levels of education amongst women which acts as a stumbling block for them to access opportunities. The disparity is shown by the URT (2016) confirming that there is indeed a gap between men and women as regular adult employees (36 years and above) in Tanzania. In total (public and private sector), male employees constitute 44.4 % of the workforce against 24.3 % of women compared to 31.5 % of men and 14.7 % of women in the private sector. The figures imply that there is a preference for male employees in both public and private sectors, more particularly in the private sector, a situation which can definitely be linked to the women's segregation in the sector. According to Hunt and Sarwar (2017), the 2030 agenda for sustainable development of the United Nations in Sustainable Development Goals, particularly goal number 10, emphasizes a reduction of inequalities within and among countries in terms of fiscal, wage and social protection. Based on the prevailing disparities in employment status between men and women, one can still ask: "Is it not high time for Tanzania to intervene in this matter quickly to abide by the human equality agenda as stipulated by the United Nations, of which Tanzania is a signatory?"

In addition to employment disparity, the African Development Bank (2015:11) strongly notes that "African labor markets are heavily gender-segregated, with women working primarily in low paying occupations". This statement means that due to this segregation, women opt for self-employment in the informal sector instead of working in the formal sector where they could earn regular wages. Moreover, the URT (2017) affirms that the prevailing segregation facing women shows that Tanzania's monthly average earnings for women and men in the public and private sectors vary and stand at TZS 326,000.00 for women (USD 140.6), and TZS 359,000.00 for men (USD 154.8). In the public sector, monthly wages stand at TZS 755,000.00 for women (USD 325.6) against TZS 854,000.00 for men (USD 362)¹. These figures clearly show that it is disadvantageous to work in the private sector which is also an

¹ Current exchange rate.

informal sector in nature. Despite low financial remuneration in the private sector, women sacrifice themselves in order to have time for their family prosperity and welfare.

On the same line, the United Nations Development Programme [UNDP] (2016:4) states that different nations bear high costs when they do not incorporate women's efforts in their national economies. They categorically state that "gender inequality in the labor market alone costs Sub-Saharan Africa about USD 95 billion annually between 2010 and 2014, peaking at USD 105 billion in 2014". According to Mmasa Joel (2013:4), gender inequality is defined as the "unequal treatment or perception of individuals based on their gender". Based on the gender inequality within the labour market, it is evident that Africa is losing a lot from the under-use of women's potentialities and assets. For this reason, a question can still be raised: "Is it not high time that developing countries and Tanzania in particular, address the prevailing gender inequality so as to avoid such loss of potential contributions to the economy caused by gender inequality?"

4. Factors Excluding Women's Participation in Economic Sectors in Tanzania

After discussing women's participation in economic sectors (agricultural, industrial and service), the author now considers some factors that exclude women's contribution in economic sectors. Notably, there are many scholarly works that discuss factors excluding women's participation in economic sectors at a global scale, including Tanzania. Some of which include: FAO et al., 2010; Losindo et al., 2010; Arbache, Kolev and Filipiak, 2010; United Nations High Level Panel on Women's Economic Empowerment [UNHLP], 2016; FAO, 2011; DAC Network on Gender Inequality, 2011; ADB, 2015; UNDP, 2016; Chichester, Pluess and Taylor, 2017; URT, 2017. In the following subsections, the author considers a few of them.

4.1. Lack of Education and Limitation on Access to Assets

According to FAO et al. (2010), the exclusion of women in economic sectors is a result of a lack of education and bargaining power and limitation on access to assets among the female population. Chichester et al.

(2017) support this idea by discussing women education as a blocking factor to access career opportunities, especially in higher-paying positions which involve leadership and technical aspects. That is to say, the constructed structural and social system which favours a male child at the expense of a female child is engineered at an early stage of human life, so much that when girls mature and later become women, they are assigned reproductive and productive roles. These roles impede on their educational development because they force women to forgo their career development for the sake of family care. In addition, on access to assets, customary law in Tanzania favours men to women in accessing land, which is the key to penetrating other frontiers (Leavens and Anderson, 2011; African Development Bank, 2015).

Additionally, FAO (2011:vi) avers that, “women control less land than men and the land they control is often of poor quality and their tenure is insecure”. This definitely signifies that the prevailing laws – customary laws – hinder women from having adequate plots of land and make them have insecure tenure. As a result, the condition demoralizes women towards improving the land through applying manure, soil and water conservation measures. These aforementioned reasons impede women from effectively and productively engaging in the agricultural sector. Furthermore, a study by Losindo et al. (2010) on factors hindering women’s participation in socio-economic and political activities in Tanzania reveals that the level of education is a determining factor for women to engage in economic sectors and decisions. A more educated woman with a university degree becomes more autonomous to engage in different economic activities as compared to a woman with a low educational level. Based on the same thinking, Arbache et al. (2010) associate factors for the gender gap in the labour market and at a household level as being linked to differences in human capital variables – which include education, training and work experiences.

That being the case, it is clear that women are required to possess more than education. A high level of education is a key to their full participation in economic activities. Similarly, women require participating in different training and consistently work in the field of their specialty to gain experience. To amplify the whole picture, the URT (2016) confirms that, in the education sector, women are found to possess a low profile compared to their male counterparts. The evidence is the enrollment of students in primary schools in 2016 for men and women (49.6 % versus 50.4 % respectively). For the case of Ordinary Level, the Gross

and Net Enrolment Ratios for Secondary Schools Form 1–4, for 2012–2016 is dominated by men (URT, 2016). This trend applies for the enrollment of teaching positions in colleges during the school year of 2015/2016 for both public and private colleges, whereby women are a minority. Similarly, records on college graduates for 2014/2015 indicate that women are also a minority. However, in terms of technical education for the National Technical Award, women dominate with a level of 4–6 in planning, business and tourism, teaching, and learning facilitation whereas men dominate in health and allied science, and science and allied technology.

On average, the women's enrollment for public universities in 2015/2016 for all programs – bachelor, postgraduate diploma, master and doctorate – was 33.7 %. This picture shows that women, as an important social group in Tanzania, are still excluded from different sectors including the tertiary sector. Dzvimbo (2004), quoted in Creighton and Yieke (2006), supports the idea that countries which succeeded in economic development have sufficiently invested in tertiary education and training, a field which features think tanks for development innovations from both genders.

4.2. Norms, Discriminatory Law and Failure to Recognize, Reduce and Re-distribute Work

According to the UNHLP (2016), social norms, discriminatory laws, failure to recognize, reduce and re-distribute unpaid work for household chores and care-giving among family members, a lack of access to financial, digital and property asserts are some limiting factors for women's participation in productive activities and the agriculture sector in particular. Moreover, the UNHLP (2016) elaborates that social norms are a set of rules which society regards as acceptable rules. For example, it is a norm to most Africans that women are to be responsible for the household chores. Discriminatory laws are laws which discriminate against certain social groups in society; an example of such laws are customary laws which favour men over women on land ownership and control.

Again, the UNHLP (2016) notes that in Africa most household work and care responsibilities are not recognized by the social system as being important. Moreover, these daily routines are neither reduced nor fairly redistributed between the men and women of the family. The household chores overwhelm women who have no other choice but to decide

between participating in economic activities and caring for the family which falls under the category of unpaid work. Women also encounter a lack of financial funding because of reduced assets (such as land) required when seeking financial assistance from banks and/or financial institutions. Palmer (1991), as quoted in Kabeer (2009: 20), amplifies this sympathetic women's predicament when expressing that domestic work is socially invisible and acts as a "reproductive tax" among women on their time and mobility. It also forces them to participate in productive activities and civic life which normally involve making important political decisions.

4.3. Poor Infrastructure

Apart from the aspect stated in the above paragraph, the DAC Network on Gender Inequality (2011) adds poor infrastructure as another blocking factor for women's participation in productive work, especially in the agricultural production and marketing of farm products. Additionally, the African Development Bank (2015) asserts that when there is lack of water supply, power and road network, women are the first victims because they are traditionally responsible for collecting water for household consumption and ensure that the firewood is available for cooking. As for road networks, it impedes on the marketing of farm products from rural areas to the marketing centres of urban areas. That being the case, poor infrastructures restrict agricultural activities for women in several complex ways as indicated above.

4.4. Women's Little Influence

Along with the above stated factors constraining women's participation in economic sectors, Moodley, Holt, Leke and Devaux (2016) add to the equation the question of women's little influence. Despite occupying positions in non-management, middle management and other senior positions, women still lack influence. The authors cited earlier provide a few examples: African women hold 47 % in non-management, 40 % in middle management and 29 % in senior management positions. For the US, figures stand at 45 %, 55 % and 46 % respectively. For China, its figures stand at 53 %, 21 % and 6 % respectively. In cumulative terms, China's percentage is lower than Africa's. In regards to percentages of women parliamentarians in Africa from the year 2000 to 2015, this trend

went from 13 % in 2000 to 16 % in 2005, 19 % in 2010 and 25 % in 2015. The percentage of women ministers in Africa, from 1980 to 2015, has risen from 4 % to 22 %. The overall picture on the representation of women parliamentarians is depicted in these percentages: 19 % in the US, 25 % in Latin America, 25 % in Africa, 27 % in Europe and 15 % in Asia. For the sake of comparison, the global average for women parliamentarians is 22 %, which ranks the US and Asia below the global average. As a result, during decades most women ministers were given ministries which normally are of little influence compared to men who were given ministries with a higher impact and influence, namely in finance, defense, foreign affairs, constitution and home affairs as pointed out by Moodley et al. (2016). As confirmation, all influential ministries were held by men in Tanzania. As far as women were concerned, they hold ministries related to the following: education, science and technology, health, community development, the elderly and children to only mention a few. This may change with the country having a new woman as head of state since 2021, but some questions remain. The ADB (2015) expresses that improved women's representation in various positions all over the world cannot be translated into influence. This goes along with what Moodley et al. (2016) suggested about women deliberately being placed in non-influential portfolios. Thus, the question remains: "Is it not about time that the government shifts its mindset when it comes to placing women in influential positions for national development?". Is it enough to just have some women in positions of power to achieve the gender equality agenda?

4.5. Domestic Work

The UNDP (2016) postulates that domestic work, which is normally unpaid and unrecognised by society, significantly hinders women from effectively participating in economic work. For example, the author shows that 71 % of the SSA burden of water collection is imposed upon women and young girls. Hirway (2015) elaborates on this segregation by affirming that women dominate the field of unpaid work, not because of their free choice and being inefficient, but due to the division of labour among men and women. This division is socially constructed and regulated by patriarchal systems, traditions and values. Hirway further explains that, in many developing countries, household members have limited time for resting, which can be used to attain education, skills and engagement

in productive labour such as agricultural activities. Women are assigned unpaid work that is both repetitive and boring, as well as lack retirement or pension advantages. The drudgery of unpaid work causes women to have limited exposure to the outside world which, in turn, restricts their life opportunities. He further remarks that unpaid work is part of the labour force in a given economy which is unfortunately deemed as low-productive and inferior work. Furthermore, unpaid work is considered to be the curse of housewives, is kept outside national income and “adds a male bias in the macro economics” (p.7). Unpaid work across the world thus subjects women to difficult decisions, which Archer and Cawston (2018) describe as self-sacrifice. In this context, self-sacrifice is a situation whereby women opt to care for the family over their own self-development or career as they have no other choice. Moreover, Singh (2013) adds that such decisions put women in a difficult position to compete in a job market compared to their male counterparts, especially when they decide to go back to their career. They find their male colleagues far up the ladder through promotion and career advancement. Moreover, Singh sadly notes that in Indian law and government policy, unpaid work is neither considered productive nor economic work. A similar situation is also correct for Tanzania as unpaid work is not factored in the GDP and national economy. It is important to note that Tanzania has adopted the SNA of 2008 which is a revised version of the UN’s System of National Accounts (SNA) of 1993 and defined by the URT (2019:1) as “a coherent, consistent and integrated set of macro-economic accounts based on the internationally agreed concepts, definitions, classifications and accounting procedures”. Therefore, domestic work is confirmed to be another blocking factor for women’s participation in Africa’s economic sectors, particularly in Tanzania. The only reliable way to address the issue is to have a change of mindset at the family and organization level and for the nation at large through the establishment of policies which are gender sensitive and empower women as a special segment in Tanzania.

5. Women’s Contribution in Tanzania’s Economic Sectors

The contribution of women in economic sectors is a major discourse in the development arena. The following are some scholars who discussed the matter: Howland et al., 2000; Amu, 2005; Ellis et al., 2007; Leaven and Anderson, 2011; FAO et al., 2011; Singh, 2013; Osorio et al., 2014;

Hirway, 2015; African Development Bank, 2015; Palacios–Lopez et al., 2016; Sachs et al., 2016; Chischester et al., 2017 and URT, 2017. Ellis et al. (2007) relate that women's contribution in the agricultural sector is a paramount concern. This sector is one of the key pillars among the Tanzanian economic sectors. Authors state that women's economic contribution in the agricultural sector is the production of food, marketing and processing of agricultural products. They further note that 98 % of women in Tanzania are actively engaged in agricultural activities. The Bureau of Statistics, as quoted in Ellis et al. (2007), affirms that there are 19 % of women with titled land in Tanzania. However, they own smaller plots which range between 0.21 and 0.30 hectares whereas men own 0.6–0.7 hectares. This means that, despite being major players in the food production, women are constrained by limited plots of land as a result of reduced control over resources including land. Osorio et al. (2014) add that Tanzania is an agricultural-based economy with 90 % of women engaged in agriculture as self-employed or employed on their own farms. In addition to that, authors note that about two thirds of women have a second job which constitutes unpaid family work. The latter basically includes reproductive activities, cooking and taking care of the children. Nevertheless, this second job is socially taken for granted and is not considered as productive nor economic (Singh, 2013).

Furthermore, Howland et al. (2000) discusses women's tormenting experiences during coffee production and processing in the Meru area of Tanzania. The crop happens to be one of the most important cash crops in the area and of Tanzania's economy in general. The authors note that women are actively engaged in coffee production and processing; despite undergoing forms of mistreatments, taxation and a lack of payment as men control most of the income from coffee production. The authors also insist on the fact that, in early 2000, the coffee blight unfortunately struck the area and coffee production considerably declined which surprisingly coincided with women's wishes and resistance for coffee production to stop. The authors report that, some men in different parts of Tanzania have used cash crops as a mean to oppress women. As far as the Meru women are concerned, they engaged eventually in informal activities and did not regret the demise of coffee production. Palacios et al. (2017) support the idea that food production and processing is basically a woman-dominated field and add that women engage in a lot of agricultural activities of which precise data is difficult to obtain. However, their contribution in SSA's agricultural sector ranges between 60 and 80

% and they contribute to 69.9 % of the sector's activities in Tanzania (URT, 2017).

Leavens and Anderson (2011) show evidence that women are essential components of Tanzania's economy: more than 98 % of rural women are engaged in food production. The FAO, IFAD and ILO (2010), as quoted in Leavens and Anderson (2011), explain that men hijack women's crops which are food crops (in particular maize) when the crop becomes profitable. The situation normally prevails even after various innovations in terms of agricultural activities, such as mechanization. This segregationist habit is part of women's segregation in Tanzania as it is throughout the rest of Sub-Saharan Africa. FAO et al. (2011) attributed women's contribution as farmers and wage labourers. They further elaborate that poverty forces women into informal jobs such as wage workers, which is the only available alternative for poor rural women. However, most rural workers are poor as a result of several factors, including low earnings due to wage gaps. On the same lines, the URT (2018) asserts that the ratio of women's wages compared to the ones of men in the agricultural sector stands at 69, 65, 84 and 93 % for respectively Tanzania, Ghana, South Africa and Kenya. The earning discrepancy indicated is quite substantial. Moreover, Chischester et al. (2017) present that African women play substantial roles in every production value chain as producers, employees, distributors, consumers, business owners and executives. Besides the fact that the majority of African women work, they face economic exclusion: most of their professional activities are unpaid, undervalued and take place in informal sectors. Thus, in order for women to achieve economic empowerment, they need more than just a job. Women simply need to have the right to make decisions on economic activities.

UNICEF, quoted in Chischester et al. (2017), said that education is an essential instrument for women's empowerment and intergenerational poverty reduction. Montenegro and Patrinos (2014) support this view by indicating that Sub-Saharan African average return to schooling for women stands at 17.5, 12.7 and 21.3 % at a primary, secondary and tertiary level. In terms of food production, the African Development Bank (2015) notes that agriculture is the backbone of Africa's economy. The sector employs about 70 % of the population and women make up two thirds of the agricultural labour force, which produces most of Africa's food. All this despite limitations in accessing land and agricultural inputs which generate lower wages compared to men. This means that the narrowing production gap for women farmers is ideal, not just for ensuring

food supplies, but also for inclusive growth. The URT (2017) points out that the agricultural sector has 52 % of women compared to 48 % of men. Blending the American experience, Sachs et al. (2016) postulate that women are important players in the farming and marketing processes of farm products. However, they face numerous patriarchal ideologies, bureaucracies and practices that limit their effective engagement in agricultural activities. For many female farmers, the entry point into farming is through marrying a farmer, a practice resisted by women in the US and Europe. This practice is called the “discourse of detraditionalization and diversity” (p.5). Similarly, Amu (2005) further appreciates the women’s contribution to the agricultural sector with activities such as farming, processing and distribution. Consequently, Goldschmidt-Clermont (1987) as quoted by Hirway (2015) amplifies the contribution of women in the sector through continuous activities which are performed in market and non-market areas. She disapproves of labelling the System of National Account (SNA) and the non-SNA, which form the basis for paid and unpaid work, as illogical for production activities are also a continuous process ranging from “crop production, harvesting, processing, storing–processing–cooking–consumption” (p.7).

6. Conclusion

In conclusion, this paper dealt with the issue of women’s exclusion in various economic sectors in Tanzania. It examined the scope of women’s participation throughout Tanzania’s economic sectors, more particularly the agricultural, industrial and service sectors. The paper used the *Human Development Theory* as a theoretical perspective to guide the discussion throughout this written work. What one can derive from the aforementioned discussions on women’s participation in various economic sectors, is that women are clearly marginalized. As pointed out more evidently within this paper, *women’s minority participation in economic sectors in Tanzania is now a New Norm*. For instance, in the agricultural sector – which is basically considered to be a woman-dominated field – women only have limited land access and ownership due to the segregative customary land tenure system. In the service sector, women are relatively less educated compared to men at the tertiary level. The URT (2016) confirms that women at the tertiary education level in Tanzania consists of only 33.7 % for enrolled students for the year 2015/2016. This low percentage is an outcome of negative attitudes against women in Tanzania

starting from the early stages. This trend is in line with the high women's unemployment rate between the ages of 15 and 24, which stands at 16.1 % against 11.3 % for men.

Similarly, it has been observed in this paper that poor infrastructures limit women's participation in economic sectors. According to ADB (2015), Africa is known to have poor infrastructures compared to any other continent in the world. In the Tanzanian situation, infrastructures tend to be significantly limiting for women, especially when it comes to effectively participating in the economic sector. The main infrastructures concerned include: water, power and road networks. Women and young girls waste a lot of time with the collection of water and firewood. Valuable time that could be spent on more productive activities such as education and participation in paid jobs. These two infrastructures directly affect women. The World Bank (2017) confirms that the situation in Sub-Saharan Africa (SSA) in terms of accessing improved water was 68 %. According to an East African Community member, Tanzania was the last member of the list with a 56 % coverage. The figures depict the gravity of Tanzanian women's workload and hurdles. Once again, we do not see Tanzania instituting clean water supply as a constitutional human right. For a source of energy, women rely on biomass instead of using smart energy options such as gas or solar renewables. One must take into consideration that Tanzania has a lot of gas deposits in the southern part of the country – in Mtwara more particularly but is not fully utilized. The government could have subsidized gas or solar renewables as energy sources in order for women to save precious time and reduce environmental degradation resulting from charcoal making and tree felling for firewood. In this juncture, the government is not seemingly dedicated to improving the infrastructures for nation development and considers women's status quo as a normal condition.

Another important infrastructure is the road network. It is evident that better road networks simplify the marketing of agricultural products from rural areas to urban centres. Moreover, proper road networks enable women to "trip-chain" as coined by (Prez, 2019) – this term refers to a travel route of several interconnected trips. The author noted that women's trips are of that nature because of their multiple roles. However, he also adds that most women are unfortunately excluded from the transport system planning. Lately, in the industry, women are still a minority because of poor working conditions and their low education levels. Based on all these devastating situations Tanzanian women face, one barely sees

deliberate governmental efforts to eradicate the above-discussed hurdles so that women can effectively take part in the different economic sectors.

7. Recommendations and a Way Forward

Having concluded the discussion on women's minority participation in Tanzania's economic sectors, the author puts forward key recommendations about what should be done regarding women's minority participation in Tanzania's economic sectors. The author suggests these recommendations because women are engines of growth and their potentiality in economic sectors has to be promoted for national development. These are the following recommendations: First, women who are major players in the agricultural sector need to be guaranteed access, ownership and control over plots of land. Currently, the customary land tenure system is a blocking factor for women's ownership and control over land. This oppressive system must be abolished in order for women to fully participate in the agriculture sector – of which they are the majority – comprising 69.9 % versus their male counterparts (URT, 2017).

Second, women are lagging behind in tertiary education with only 33.7 % participation (URT, 2016). The government needs to quickly intervene to solve this educational gap through establishing affirmative action policies supporting women in higher education. For example, the government can develop special scholarships for female students at intermediate colleges and universities to have a good number of female applicants for university enrollment.

Third, there is a need to introduce gender studies at primary and secondary school levels in Tanzania. The aim would be to create awareness among pupils and students about gender issues and the segregation prevailing in society. This would allow both pupils and students to come to realize the need for a change of mindset on social norms which segregate young girls. As for young men, they will have to acknowledge that women do a lot of unpaid work, take part in various family chores as well as the process of reducing the women's workload and re-distribute household chores among all family members. The government should also insist on these trainings to impart a new set of values among the younger generations and deconstruct social norms which eradicate gender inequality in order to achieve gender equity and empowerment for women and girls (Hunt and Sarwar, 2017).

Fourth, there is an urgent need to improve the infrastructure to enable easier women's participation in economic sectors. Water supply coverage needs to be increased in both urban and rural areas to improve Tanzania's community health. Moreover, the availability of water supply could relieve women from such a workload and enable them to participate, either in productive activities or in education and training, to increase opportunity for their employability in both public and private sectors.

Similarly, in the case of energy, the government needs to consider smart energy options (gas or solar renewables) and subsidize them so that its citizens can use them instead of firewood and charcoal – which are the most used and popular energy sources in the country. It is an unarguable fact that the present source of energy used by the majority in the country adds more workload to women and girls apart from environmental degradation.

Smart energy can motivate men to take part in family chores as it simplifies and lightens family tasks. In addition to that, improved road networks is of paramount importance for country development – and women's economic participation in particular. By having proper roads, it is easy to market agricultural products from rural areas in the urban areas. As aforementioned, marketing is also another key role of women besides other agricultural tasks and activities (Amu, 2005; Ellis et al., 2007; Chischester et al., 2017). Thus, the government needs to improve road networks in order to improve the marketing of agricultural products.

Fifth, the government has to ensure that the mining industry improves its working conditions to encourage women to participate effectively in mining activities, for example, by having childcare centres within mining areas to accommodate women with young children. Supervisors also have to change their mentality about how mining activities can also be carried out by women and are not only man-based.

Lastly, the government should trust women by having them present in the political, private and public sectors, especially with the arrival of a woman as the country's new head of state. It is also a good time for Tanzania to have more women leaders represented in influential portfolios and in sectors such as finance, foreign affairs, constitution, home affairs. With more empowerment, women will be able to influence policies and matters pertaining to gender equality and development in Tanzania. By being represented in different important sectors, women will have more influence in policy and decision-making processes which

is an important ingredient in women's empowerment and a strength for the national development.

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Chapter 12

Women in the Informal Sector in Tanzania: The Case of Dar Es Salaam City

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1. Introduction

It is estimated that about 60 % of the potential working population in developing countries earn their living in the informal sector (Fapohunda, 2012). The informal sector represents economic activities by individual operators and economic units (in law or practice) without any formal contractual arrangements. This economic activity is not subjected to government regulation or taxation. It consists of unpaid workers in family enterprises, casual wage employment, home-based workers or service providers and street vending (Etim and Daramola, 2020). It is often characterized by less stability, a lack of social protection, lower earnings, and higher gender gaps (Malta et al., 2019). Most workers live and work in this sector not because it is their personal wish or choice, but because they have no chance of being hired by an employer in the formal sector (Fapohunda, 2012). Moreover, some specific sectors are highly dominated by women (Bertulfo, 2011; Fapohunda, 2012) and others by men. Generally, the percentage of women workers who are informally employed in developing countries (92 %) is higher than the percentage of men workers (87 %) (ILO, 2018; Bonnet et al., 2019). In Sub-Saharan Africa (SSA), the average share of informal employment of women in the non-agricultural sector is 83 % while for men, the share is 72 % (Malta et al., 2019). Women are concentrated in segments of the informal economy where productivity and earnings are low, hampered by inadequate access to capital, public services, social protection, and infrastructure, and often face a skills deficit (Basu and Thomas, 2009; ILO, 2015). There is a much greater proportion of women in areas of

informal work such as production for own consumption, home-based and domestic work – where their invisibility reduces their capacity for collective bargaining and increases their exposure to exploitation (Chen et al., 2006; World Bank, 2013; Ulrichs, 2016). The types of informal work women do as market or street vendors, hawkers or homeworkers, expose them to risks to their physical safety and health (Basu and Thomas, 2009; Bertulfo, 2011).

The reasons as to why more women participate in the informal sector are widely debated in the literature (Glick and Sahn, 2005; Khan and Khan, 2006; Khan and Khan, 2009; Basu and Thomas, 2009; Mohapatra, 2012). For example, Fapohunda (2012) showed that the majority of women participate in the informal sector as a survival strategy. This is because women have limited access to critical resources like education, land, technology and credit, which restrains them from accessing formal jobs or start formal businesses (Fapohunda, 2012). Khan and Khan (2009) showed that factors such as the larger the family size and the household poverty, increase the presence of women's participation in the informal sector in Pakistan. Likewise, Malik and Khan (2009) showed that a large family size is a driving factor for female participation in the informal sector, while the large number adult males in the family is a decreasing factor. Moreover, Malta et al. (2019) showed that in SSA, women participate in the informal sector because of lower levels of education, household responsibilities for women and preferences for job flexibility. A better understanding of the determinants of female participation in the informal sector is an important step towards achieving a more comprehensive policy – which could help identify the areas that require attention in terms of preventing the risks faced by the informal sector. When women's working conditions improve, it helps raise their productivity, which in turn leads to increased income, contributes to overall economic growth and reduces poverty in the long term (Bertulfo, 2011). In other words, addressing the conditions of female informal workers contributes to poverty reduction.

Therefore, this paper analyses data from two surveys for different periods with the aim of understanding the extent and the drivers of women engagement in the informal sector in Tanzania. For this purpose, the study uses Tanzania Integrated Labour Force Survey 2001–2014 and the 2019 Economic Survey in order to understand the intensity of women's participation in the informal sector. The analysis of the secondary data

and conducted interviews attempted to answer the following research questions:

- What has been the extent of women engagement in the informal economy in Tanzania over time?
- What are the driving factors of their employment?
- How are women in the informal sector being affected by the COVID-19 pandemic?
- What are the policy recommendations to improve the situation of women working in the informal economy?

2. Literature Review

2.1. Theoretical Approaches

To explain women's participation in the informal sector jobs, there are three main perspectives that mark the literature: structuralist, neo-liberal and post-structuralist theories. The structuralist perspective is based on the argument that participation in informal work is driven by exclusion from formal work (William and Round, 2010; Williams et al., 2011; Williams et al., 2015). It views the informal economy as an inherent feature of contemporary capitalism and a direct result of employers seeking to reduce costs, such as by sub-contracting to businesses employing informal labour under poor working conditions, unfair wages, unreasonable hours and a lack of benefits for workers (Ross, 2004; William et al., 2011) as well as the 'precarious' or 'false' self-employed (Williams and Round, 2010; Williams et al., 2015). Therefore, informal jobs are at the bottom of an employment hierarchy where informal workers are characterized as marginalized populations that only receive very few benefits, low wages and work in poor conditions (Roberts, 2013; Williams and Round, 2010; Williams et al., 2015).

Neo-liberalists strongly believe that participation in the informal economy is driven more by a voluntary decision to 'exit' the formal economy, rather than a result of involuntary exclusion (Snyder, 2004; William and Round, 2010; Williams et al., 2011; Williams et al., 2015). It contends that the informal sector rises due to the government's overregulation of the market (De Soto, 1989). As Gerxhani (2004) argued, workers choose to participate in the informal sector because they experience more

autonomy, flexibility and freedom in this sector than in the formal one. Therefore, the informal economy is viewed as a positive alternative to formal employment.

As for the Post-structuralist theory, it portrays that informal employment emerges as a result of a voluntary exit rather than exclusion, but the decision to exit is more for social and redistributive rationales (William and Round, 2010). Evidence shows that the term 'exclusion' is more applicable to those engaged in waged informal employment while the term 'exit' would rather apply to own-account informal workers (Chen, 2012; Perry and Maloney, 2007). Also, exclusion is more relevant in relatively deprived populations and exit is more relevant in relatively affluent groups (Gurtoo and Williams, 2009). Just as the exit is more relevant in developed economies and exclusion is more relevant in developing countries (Maloney, 2004; Oviedo et al., 2009). This being said, exclusion is more relevant to women informal workers while exit tends to be a more man-related rationales (Grant, 2013; Williams et al., 2013).

The theoretical approaches discussed rely on an either/or assumption: either participation in the informal economy is involuntary or voluntary. However, the informal sector is generally recognized as being an inferior alternative to formal sector employment in terms of earnings, security and protection from exploitation regarding aspects such as labour standards, lending terms and other contractual arrangements (Gallaway and Bernasek, 2002; Amin and Singh., 2002). On the one hand, some authors argue that women opt for informal sector jobs because it allows them to combine household work with paid work (Dignard and Havet, 1995; Gallaway and Bernasek, 2002), while on the other hand, others argue that women are forced into the informal sector because the formal sector fails to accommodate their household responsibilities (Etim and Daramola, 2020; Olu-Owolabi et al., 2020).

The structural functionalism theory provides the theoretical basis for this study. Informality has a unique relationship with women and is of special concern for them. Women-owned enterprises are more likely to be informal in most countries (ILO, 2013). Informality comprises other women-related barriers such as less access to finance, a lack of collateral and less control over assets. Women in informal enterprises are more likely than men to work at home and in lower-paid sectors (Chen, 2010). The income penalty and reduction in returns to education associated with informality is higher for women than for men (Sethuraman, 1998). Consequently, in developing countries,

women participate in the informal sector due to exclusion rather than as a voluntary exit.

2.2. Empirical Studies

Malta et al. (2019) investigated factors that cause a larger presence of women in the informal sector in sub-Saharan Africa (SSA) using cross-country data and micro data from Senegal. The study found out that women are overrepresented in the informal economy in SSA because of larger gender gaps in education, fewer family planning needs being satisfied, traditional gender roles, legal constraints and higher incidences of early marriage and early pregnancy. Specifically, the study showed that being a woman increases the chances of working in the informal sector by 3.4 percentage points. However, in urban areas, this discrepancy was even higher (a working woman was 8.5 percentage points more likely to be working in the informal sector than a working man). In addition, the results showed that higher education reduces the chances of women working in the informal sector. Therefore, the study recommended that increasing girls' educational attainment can substantially diminish the probability of women being employed in the informal sector – and that it could address equally social norms such as traditional gender roles that reduces women's competitiveness in the formal labour market. Policies such as promoting and encouraging a more equal division of labour at home through education campaigns and the introduction of a paternity leave were recommended.

Gezahagn (2016) studied gender-wise determinants of informal sector employment in the Ethiopian city of Jigjiga. The researcher collected cross-sectional data and employed a descriptive and econometrics method of analysis to answer the study's objectives. The results of the study showed that married participants and households with large family size show significant and positive likelihood in informal sector participation. The educational level also influenced participation in the informal sector for both genders. Meanwhile, the Probit model results showed that for every male participant, the likelihood of involvement in the informal sector declines as age increases, whereas age was insignificant for female households. Finally, for both genders, personal attributes were not a significant determinant of participation in the informal sector.

In Lesotho, the study by Chingono (2016) revealed that the domination of women in the informal economy is a result of rural poverty that

forced some of the women to migrate to urban areas where they engaged in informal economic activities. In addition, gender discriminatory policies and practices of both the public and private sectors have further contributed to forcing women into the informal sector. According to the study, the primary motives for women starting an informal business ranged from the need for basic survival, supplementing income to making profit and generating wealth.

Franck (2012) examined factors which motivate women's informal micro-entrepreneurship in Malaysia based on qualitative data obtained from fieldwork conducted in the state of Penang on the North-Western coast of Peninsular Malaysia. In contrast to the view that women's informal micro-entrepreneurship is only motivated by "involuntary exclusion from the labor market" or "poverty", Franck (2012) found out that women's micro-entrepreneurship can actually be motivated by a wide range of factors, including earning an income; being interested in doing business; having increased flexibility and autonomy; enjoying the possibility to combine work with family obligations and re-negotiating spatial practices.

Anambane and Adom (2018) explored the role of cultural practices on female entrepreneurship with some insights from the Nabdam district of Ghana based on data gathered through face-to-face in-depth interviews. The study found that entrepreneurship is perceived as a field for uneducated women because of cultural influences and norms rather than managerial inability. Adom and Williams (2012) evaluated the motives for informal entrepreneurs' in Ghana based on face-to-face structured interviews with 80 informal entrepreneurs. This finding shows that the main reasons for engaging in informal entrepreneurship for the majority of the respondents (65 %) were predominantly necessity driven. For a minority of the respondents (35 %), the reasons were rather opportunity driven. When further probes were integrated, women tend to be more necessity-driven and men more opportunity-driven. Over time, however, women tend to shift in the drivers, usually from more necessity-driven to more opportunity-driven rationales. Likewise, Adom (2014) examined the motives for informal entrepreneurs in Ghana based on face-to-face interviews with 150 respondents. The results were that the entrepreneurs' motivations transcended the marginalization thesis and that informal entrepreneurs were often motivated not by necessity or opportunity, but rather by an amalgamation of the two. Although women constituted the majority of the necessity-driven

informal entrepreneurs, with time, some of them become opportunity-driven entrepreneurs.

In East Africa and Tanzania in particular, it is argued that women-owned enterprises (WOEs) are more likely to be informal due to their small sizes (ILO, 2013). WOEs are more likely to have lower capital stock and be in sectors characterized by informality (McKenzie, 2009). The study undertaken by the ILO and Women's Entrepreneurship Development (WED) on engaging informal entrepreneurs in East Africa indicated that, in Tanzania, the women interviewed owned 60.2 % of MSMEs (Micro, Small and Medium size Enterprises) with no employees other than the owner, and only 14 % of those with five employees minimum (Mori, 2014). A similar study carried out in Uganda found that women enterprises are more likely to have no employees compared to male-owned businesses (Mugabi, 2014). The smaller size of WOEs is partially caused by hurdles women face in the work market. There is also more limited access to wage employment, for example. In fact, in Uganda, only 13.8 % of working women are in paid employment, compared to 27.9 % of working men (Mugabi, 2014). It means that women are more likely to be pushed into self-employment as a survival strategy. In both wage employment and self-employment, women are disadvantaged by unequal education, social norms and discrimination, as well as by home and family responsibilities. Reducing the overall prevalence of informal enterprise among women requires addressing these barriers, which include education gaps; less access to finance, land and assets; lack of childcare, legal barriers; as well as discrimination and restrictive social norms.

Based on qualitative semi-structured interviews with 16 women vendors in the suburbs of Dar es Salaam, Tillerman (2012) studied the livelihoods of formal, semi-formal and informal female food and beverage vendors in Tanzania. The study found that women were overrepresented in informal, unsafe, low paid and precarious employment. These women become active in low-compensated and hazardous sectors of the urban economy due to an urgent need for income. The initial low financial capital and relatively low skills level in combination with the general lack of employment opportunities offers very limited livelihood alternatives. Also, the need to combine childcare and income-generation causes more female participation in the informal sector. The findings further revealed that women vendors draw primarily on labour assets and social capital in order to construct livelihoods. However, the women vendors draw

on social support through informal loan and credit taking as a substitute for financial resources in order to make ends meet. In addition, the study revealed that informal vending space in residential areas, accessed through private contacts and social capital, can be an important livelihood asset.

However, the available evidence on the informality is rarely sex-disaggregated and what has already been analysed is mostly from Latin America (Rein, 2011; Sinha, 2015; Torres, 2020), an area which has more developed economies and a different gender context to that which can be found in Africa and in Tanzania in particular. Sex-disaggregated data is increasingly collected, but gender analysis is still lagging behind. To ensure that programs reach women and meet their needs, gender analysis is critical in terms of planning, monitoring and evaluation. The current study therefore aims to understand the extent and driver of women engagement in Tanzania's informal sectors.

Using data from the Periodic Labour Force Survey (2018–19), Chakraborty (2020) examined the gendered experiences of informal workers in India during the lockdown period. The study adopted a mixed methodology and interviewed 176 women informal workers in Delhi in April 2020. The study found that the unequal gendered division of domestic chores existed before the onset of the pandemic, but that the COVID-19-induced lockdowns had further worsened the situation. The findings also showed that of those surveyed, 66 % of women reported an increase in inside-household domestic chores, and 36 % stated an increased burden of child and elderly care work as a result of closed schools and daycare centres during the COVID-19 lockdown. Furthermore, they experienced severe income drops during that same period. As a result, the study suggested that the government should provide a minimum employment guarantee scheme to help women informal workers in the absence of any safety nets.

Based on the national-level panel data from the Centre for Monitoring Indian Economy (CMIE)'s and the Consumer Pyramids Household Survey (CPHS) database, Deshpande (2020) investigated the effects of the Covid-19 induced lockdown on employment and the gendered pattern of time allocation inside the household. The study found out that women were 20 percentage points less likely to be employed in formal jobs than men. Comparing hours spent on domestic work pre- and post-lockdown, the study found an increase in hours spent on household chores for both men and women, though the increase was higher

for women relative to men during the lockdown periods. The unemployment challenge is undoubtedly massive. Therefore, to sustain the momentum in employment generation in the coming months, the study suggests the development of strong policies to provide employment and to boost the demand, in the absence of which job losses might worsen the unemployment crisis.

Balde et al. (2020) investigated the labour market effects of COVID-19 in Senegal, Mali and Burkina Faso. The findings showed a reduction in economic activities, more specifically for workers in the informal economy who tend to be more impacted by the pandemic. The results showed that informal workers were more likely to lose their jobs compared to their counterparts in the formal sector. In economic downturns, informal workers suffered the most in terms of reduced work hours and job losses. Moreover, they experienced a much greater decrease in earnings compared to formal workers.

3. Methodology

3.1. Research Approach and Design

This study relies on a mixed methods approach to answer the research questions. The strength of this approach is to allow the researcher to employ multiple strategies, approaches and methods to achieve complementary strength while minimizing any overlapping weaknesses (Creswell and Creswell, 2018; Bryman, 2016; Johnson and Onwuegbuzie, 2004). The study began by looking at the general picture of women's prevalence in Tanzania's informal sector and then reflected the situation in the selected case study: Dar es Salaam. The focus behind the case study is to provide greater and detailed insight on the studied aspects. The choice of Dar es Salaam region was informed by the significant share of the labour force engaged in informal sector activities. The 2014 integrated labour force survey indicated that 64.6 % of households in Dar es Salaam were engaged in informal sector activities (URT, 2015).

3.2. Data Sources and Collection Methods

The study employed a combination of primary and secondary data with a desk review of the relevant literature and documents to answer the research questions. This was followed by interviews with key relevant

stakeholders. The secondary data consisted of the Tanzania Integrated Labour Force Surveys (2001, 2006 and 2014) and the Dar es Salaam Informal Sector Survey of 1995 and 2019. The primary data involved in-depth interviews conducted with key relevant stakeholders. The combination of these three datasets provides a national perspective as well as a thorough case-specific perspective.

3.2.1. The Integrated Labour Force Survey Data

The Integrated Labour Force Survey (ILFS) of 2000/01, 2006 and 2014 are the nationally comprehensive surveys conducted by the Tanzanian government in collaboration with development partners and other stakeholders. The ILFS is implemented on behalf of the government by the National Bureau of Statistics (NBS) in collaboration with the Ministry of Labour and Employment with technical and financial assistances of the International Labour Organization ILO, the World Bank and of other stakeholders. The broad objective of the Integrated Labour Force Surveys is to obtain comprehensive data on the current status of the National Labour Market. More broadly, the surveys provide a baseline data on the socioeconomic characteristics of the labour force, the informal sector activities, unemployment and underemployment, child labour etc. It also reflects on the time dedicated to planning, policy implementation, monitoring and evaluation of government programs aimed at improving the livelihood of the population and the status of children.

3.2.2 The Informal Sector Survey

The Informal Sector Survey of 1995 was conducted with the objective of identifying the size of the informal sector in Dar es Salaam. The survey was conducted in Dar es Salaam due to a high population growth and increasing economic activities. The population in Dar es Salaam increased from 1,549,904 in 1991 to 1,840,787 in 1995, equivalent to a 4.7 % annual growth rate. Moreover, the Dar es Salaam Informal Sector Survey (ISS) of 2019 showcases estimates on the following elements: gross output and value addition in production of goods and services from agricultural and non-agricultural activities; investment productivity; capital formation; value of per capita production; employment size and its distribution. In addition, the survey aimed at identifying business locations and linkages between informal sectors and other economic sectors. The

first phase of the survey covered the Dar es Salaam region due to its highest contribution to the national GDP (17.5 % in 2018) (Bank of Tanzania, BOT, 2020) and high population of 10 % of the total population according to the 2012 Population and Housing Census. The survey covered 1,322,995 households in the Dar es Salaam region.

3.2.3 Desk Review

The team reviewed literature around the research questions on gender and informality. It also reviewed the impact of Covid-19 on the economy of women engaging in the informal sector. It included a report and policy brief by UNDP (2020) on *'the rapid socio-economic impact assessment of Covid-19 in Tanzania'*; an ILO (2020) policy brief on *'the Covid-19 crisis and the informal economy: immediate responses and policy challenges'*; the FAO (2020) report on the *'impact of COVID-19 on informal workers in Tanzania'* and civil society's position papers, only to mention the main sources.

3.2.4 Key Informant Interviews

The team conducted face-to-face and phone interviews with the selected key informants. Purposive and snowball sampling techniques were used to allow the researchers to obtain respondents who can provide relevant and rich pieces of information about the study for more reliable data. The data collection exercise took place between December 2020 and early January 2021 involving respondents from women-based organizations, the Tanzania Gender Networking Programme (TGNP) and Open Mind Tanzania, academia, the VIBINDO society and government officials from the ministry responsible for labour and employment.

3.3. Data Analysis and Presentation

After data was extracted and collected, it was analysed both quantitatively and qualitatively. This was done by comparing and contrasting the primary and secondary data sources. The compilation and analysis of quantitative data was done using Microsoft excel. Descriptive statistics were used to describe the data's basic features and present quantitative descriptions in a manageable form. Descriptive statistics for the ILFS and ISS data provide a glimpse of the heterogeneity that is observed across individuals and informal sector jobs. The interviews carried out

were interpreted and analysed qualitatively using the thematic approach method. After analysing the data, both a conclusion and recommendations were made.

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4. Results and Discussion

The chapter had four distinct research questions; namely, what has been the extent of women's engagement in the informal economy in Tanzania over time? What are the driving factors of their engagement? How are women in the informal sector affected by the pandemic? What are the policy recommendations? The chapter's findings and discussion on each of these specific questions are presented in this section. The section begins by profiling the persons engaged in the informal sector which also answers the first question.

4.1. Profiles of Individuals Engaged in the Informal Sector

The Dar es Salaam Informal Sector Survey of 1995 shows that the number of people engaged in the informal sector as a percentage of the Dar es Salaam working population was estimated to 20.4 % in 1991. Likewise, the 2019 Dar es Salaam Informal Sector Survey showed that in 2019, Dar es Salaam region had 1,023,520 informal sector operators equivalent to 19.4 % of the workforce. Out of them, 57.4 % were women. The overriding reasons for operators' engagement in the informal sector activities were inability to find other work and the need for additional income (URT, 2020).

On the other hand, the 2006 Integrated Labour Force Survey (ILFS) showed that in 2006, 40 % of all households in Tanzania Mainland were engaged in informal sector activities compared to 35 % in 2001 (NBS 2007). It also reveals that the concentration of informal sector activities was higher in Dar es Salaam (57 %) as opposed to other urban areas (54 %) and rural areas (33 %).

Furthermore, 2014 IL&FS showed that in 2014, 42.5 % of Tanzanian households were engaged in informal jobs. This was a slight increase (3.0 percentage point) in the number of households engaged in informal businesses between 2006 and 2014. However, more than half of urban

households were engaged in informal jobs and more precisely 64.6 % in Dar es Salaam and 56.9 % in other urban areas. Rural areas had the lowest proportion of households engaged in informal sector activities (31.5 %). A similar pattern is observed on the distribution of households engaged in informal sector businesses across geographical areas between 2006 and 2014. However, there is a noticeable increase of households engaged in informal businesses in Dar es Salaam from 56.5 % in 2006 to 64.6 % in 2014.

Tanzanian labour force surveys showed that women form the large proportion of people engaged in informal sector jobs. For example, as explained already, a 2019 informal sector survey showed that in Dar es Salaam, 57.4 % of people engaged in the informal sector were women. Moreover, the ILFS of 2014 showed that 4.3 million people were engaged in the informal sector as their main economic activity which is equivalent to 21.7 % of total employed persons. The proportion of females was slightly higher (51.1 %) than males (48.9 %). Tab. 1 shows further that people engaged in the informal sector as a secondary activity constitute 9.5 % of total employed persons with males having a slightly higher share (51.9 %) than females (48.1 %).

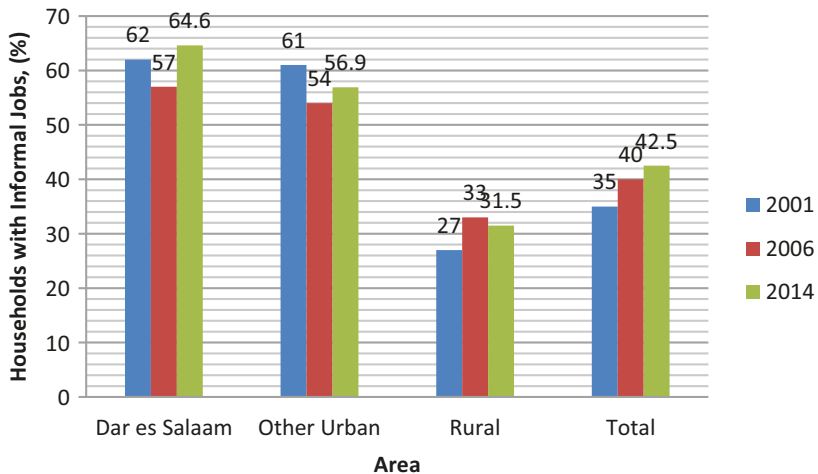


Fig. 1: Households engaged in informal sector activities in Tanzania, 2001, 2006 and 2014, (%)

Source: NBS, 2007 and 2015

Tab. 1: Percentage of people employed in the informal sector by area and sex ratio in Tanzania, 2014

Area	Main activities			Secondary Activities		
	Male	Female	Total	Male	Female	Total
Dar es Salaam	13.6	13.6	27.3	0.7	0.5	1.2
Other Urban	21.2	25.6	46.7	9.4	10.4	19.8
Rural	14.1	11.8	26	41.7	37.2	78.9
Total	48.9	51.1	100	51.9	48.1	100

Source: NBS, 2015

4.2. Reasons for Women's Engagement in the Informal Sector in Tanzania

Evidence from the 2019 Dar es Salaam Informal Sector Survey, 2006 and 2014 Integrated Labour Force Surveys showed that for both the main and secondary activity, the overriding reasons for the males' and females' engagement in the informal sector are the inability to find a better work and the need for families to get additional income. Other common reasons include the fact that the sector provides good income opportunities and that these businesses do not require much capital. Operators in the two employment sectors also mentioned that informal business was providing good income opportunities and did not require much capital. A larger proportion of females than males consider the need for families to get additional income as an important reason to be involved in the informal sector. In contrast, a larger proportion of males are motivated by businesses that provide good income and opportunities. Therefore, the government should create an enabling environment for informal sector owners to access adequate capital that will transform their businesses into formal enterprises and somehow enhance their family incomes.

Tab. 2 shows that major reasons for engagement in the informal sector as a main or secondary activity are the need for additional family income (37.8 and 64.7 % respectively) and low startup capital for business (29.7 and 31.1 % respectively). Moreover, a larger proportion of females than males consider the need for families to get additional income as an important reason to join the informal sector. This was the case in Tanzania mainland and Dar es Salaam in particular (see Tabs. 2 and 3 respectively). The interview elaborated that since women are mainly left to look after households, care for their children's necessities such as food

and clothing, they are motivated to look for extra income. In contrast, a larger proportion of males are stimulated by businesses that provide good income and opportunities. This was supported by the words of an official from a women-based organization during one of the interviews:

‘Women have low possibilities to accumulate capital to enable them to open medium and large size businesses due to spending more on family matters and sometimes restrictions from husbands. They rarely own assets like land and houses that can enable them to secure business loans. Ultimately women end up engaging in very small size informal businesses.

Tab. 2: Percentage distribution of owners of informal business by reason for engaging in such business and sex ratio, Tanzania Mainland, 2014

Reasons for Engaging	Main Activity Owners			Secondary Activity Owners		
	Male	Female	Total	Male	Female	Total
Can't find other work	14	14.3	28.4	8	5	13
Family needs additional income	16.8	21.1	37.8	33.9	30.8	64.7
Business/activity does not require much capital	14.3	15.4	29.7	16.4	15.7	32.1
Business/activity provides good income opportunities	15.9	10.3	26.1	11.3	8.3	19.5
Wants to be independent from his/her own master	8.8	7.5	16.3	3.5	3.4	6.9
Can combine business/activities with other household or family responsibility	5.5	9.1	14.6	13.4	8.7	22.1
Can choose his/her own hours and place of work	5.3	2.6	7.9	5.3	2.3	7.6
Released from other employment or reduction of working time	1.1	0.6	1.7	0.1	0.1	0.2
Retirement from other employment	0.4	0.4	0.9	0.8	0.4	1.3
Can keep production costs low	0.9	0.6	1.5	1.4	0.4	1.8
Traditional line of business/activities of respondent or family/tribe	1.5	1.3	2.8	2.8	2.1	4.8
Bureaucracy in formalizing business/activity	0.1	0.1	0.2	0.1	0.3	0.4
Other	0.7	0.4	1.1	0.3	0.4	0.7
S	49.6	50.4	100	51.6	48.4	100

Source: NBS (2015)

Likewise, Tab. 3 shows that the overriding reasons for operators' engagement in the informal sector activities were the inability to find another work (55.2 %) and the need for additional income (54.3 %). Besides, 20.2 % of operators were engaged in the informal sector as it requires less capital. Furthermore, more women (25.8 %) are engaged in the informal sector of Dar es Salaam as compared to men (16 %), due to the fact that they can combine business with other household or family responsibilities. It also came out very clearly in the interview with the women-based organization respondents and with an academician, that women generally have no other choice but to engage in informal jobs – so that they can work part-time and undertake other family matters including care for children, husbands and relatives. A respondent from a woman-based organization stated the following:

'We have come across several concerns; on the one hand, husbands advise or force their wives to either not search for formal jobs or quit formal jobs and engage in informal activities which will give them enough time to accomplish domestic duties including raising children. Due to common traffic jams in Dar es Salaam, employed women are forced to leave their homes very early in the morning and return home late at night, hence failing to attend their domestic roles. There is a cultural perception that women are expected to spend more time at home. On the other hand, some private firms prefer male workers over women as they believe that women are more demanding and use more excuses like, for example, during their pregnancy maternity leave or for other family-related issues.'

Likewise, Malta et al. (2019) and Franck (2012) argued that women engage in informal activities due to discrimination and restrictive social norms, and to have the possibility to combine work with family obligations, and to fulfill the traditional gender role. Some scholars have observed that women are forced into the informal sector because the formal sector has failed to accommodate their households' responsibilities.

More results from the interview with stakeholders revealed other various factors that might explain women's engagement in the informal sector. Women are less educated especially in terms of high education which reduces the possibility for them to join formal employment. Furthermore, even educated women are less favoured by the formal labour market due the nature of their family-raising role. As for women who are less educated especially in terms of higher education, factors such as early marriages and pregnancy can reduce the possibility to access formal employment.

Tab. 3: Reasons for engaging in the informal sector in the Dar es Salaam region by sex ratio, (%)

Reasons for Engaging	Male	Female	Total
Cannot find another job	55.4	55.1	55.2
Family needs additional income	48.9	58.4	54.3
Business/activity does not require much capital	18.3	21.7	20.2
Business/activity provides good income opportunities	18.8	14.2	16.2
Wants to be independent from his/her own master	17	12.8	14.6
Can combine business/activities with other household or family responsibility	16	25.8	21.5
Can choose his/her own hours and place of work	11.8	12.5	12.2
Released from other employment or reduced working hours	6.4	3.1	4.6
Retirement from other employment	4.3	2.8	3.4
Can keep production costs low	2.5	2.2	2.4
Traditional line of business/activities of respondent or family/tribe	2.3	1.4	1.8
Bureaucracy in formalizing business/activity	0.5	0.5	0.5
Other	7.4	6.9	7.1
Total Number	463,046	601,952	1,064,998

Source: NBS (2020)

4.3. Impact of the Covid-19 Pandemic on Women Engaging in the IS in Tanzania

Due to Covid-19, countless people's livelihoods have been badly affected both worldwide and in Tanzania. The interviews with the study's respondents and the literature review suggest that the Covid-19 pandemic has caused a major economic and labour market shock, showcasing significant impacts in terms of unemployment and underemployment for informal workers. Residents who rely heavily on informal sectors are experiencing a harder economic hit. Women, as one of the vulnerable groups who are overrepresented in the informal economy, are experiencing additional vulnerability (UNDP, 2020a). Indeed, women in the informal sector do not have protected employment contracts, and thus habitually do not benefit from workers' benefits, social protection or workers' representation (FAO, 2020). Findings revealed that women engaging in the informal sector in Tanzania are negatively affected in a multitude of ways. First, Tanzania restricted arrivals from the affected

countries, such as Italy and China, before extending its list to other countries. Women who depend and are linked to the tourism and hospitality industry are acutely affected (UNDP, 2020b). These women include those engaging in food vending, hotel and bar services, cultural entertainment groups, art and designing works, food processing etc. During one of the interviews, a government official said the following:

‘Women whose livelihood depends on the tourism and hospitality (music and entertainment) industry and food vendors along the tourism value chain were and still are affected. Sometimes to the point of closing down their business. Some return to a village for farming after failing to cover living costs here in Dar es Salaam. The pandemic has led to a drop in services and sales due to a fall in the purchasing power of potential customers in the consumption of informal sector goods and services produced by women. Consequently, this reduced the participation of women in informal sector activities.’

The above quote implies that Covid-19 affects the social and economic life in both urban and rural families, particularly the most vulnerable groups living below the poverty line. According to ILO (2020), participants in the informal sector who do not have savings or another financial cushion may have no other choice but to use their negligible business capital for consumption. Consequently, operators are forced to close their informal business briefly or permanently, leading to job and income losses. In turn, income loss and the deepening poverty could trigger a sharp rise in child labour and lower school enrolment rates, especially for young girls (ILO, 2020).

Furthermore, women whose sources of income are from sectors that are hard hit by restrictions on movement and lowered consumer demands in export markets were acutely affected. An initial survey was conducted by the Tanzania Women Chamber of Commerce (TWCC) among members who are largely Women SMEs in agriculture, trade and cross border trade as well as tourism to analyse the effects of COVID-19 on their businesses. It revealed that there is a decrease in sales due to the speculative nature of consumers. The general public has reduced expenditures due to economic uncertainties. Women businesses in beauty, textile and other industries have reported an average decrease of 53 % in terms of sales (UNDP, 2020, p. 53).

Second, social distancing measures and restrictions of unnecessary human mobility have disrupted livelihoods exposing the majority of the poor to acute financial shocks. Most of the poor and vulnerable who are self-employed in the informal sector have been affected by reduced

demands for their products (less traffic, closing of education institutions) due to the pandemic. Similarly, women are hit harder by the economic impact of Covid-19 as most women work in low-paying, dangerous and informal sectors. They depend on daily wages with limited savings. According to the National Bureau of Statistics (NBS, 2018) 51 % of women work in the informal sector employed or running micro and small enterprises (MSMEs). Furthermore, women dominate in low-compensated sectors and precarious forms of employment such as market trading and vending. As most of Tanzania's economy is unorganised or rather not well-coordinated, the informal sector workforce would definitely be hit hard by the COVID-19 pandemic, affecting even the small and medium enterprises (Civil Society Organizations Directors' Forum, 2020, p. 12). It adversely affects the income and livelihood of millions of families in Tanzania.

Third, precautionary personal hygiene measures such as handwashing using soap and running water, the use of hand sanitizers, and wearing face masks were very challenging due to limited affordability, the job nature and operating environment. A lack of access to running water not only limits the possibilities for handwashing, it often forces women to line up for water, thereby endangering themselves and their community. Also, in the interview with both the VIBINDO Society representative and official from a gender-based organization revealed that women in the informal sector had less access to the right information regarding what and how to properly use protective facilities due to their busy professional and private schedules. Furthermore, an interview with an academician indicated that women in the informal sector lack flexibility and the capacity to start online businesses. The closing of schools added more responsibility for women to look after their children which lessens their time in the business. It was not easy for women to decide whether or not to go to work or to take care of the kids. It is therefore safe to say that almost everyone in the informal sector experiences the negative impacts of the pandemic – and this sector accounts for a significant number of all jobs in Dar es Salaam.

On the other hand, however it was reported by the government official in the interview that the pandemic opened a door of opportunity for innovation and new business lines for informal sector operators, especially women. These include the designing and selling of protective equipment like cloth facemasks, locally-made washing soaps, sanitizers and handwashing machines.

4.4. Conclusion and Policy Recommendations

There are more women than men engaging in the informal sector jobs in Tanzania, and it has become a major strategy for families to receive an often needed additional income. Not to mention that social practices, the past marginalization of women and restrictive norms as well as the possibility to combine informal activities with family obligations are other important drivers. Furthermore, women dominate low-compensated sectors and precarious forms of employment such as market trading, food vending, home-based jobs and other daily waged and low paid work. Women are amongst the vulnerable groups overrepresented in the informal economy and the ones in the informal sector who are experiencing additional inequalities caused by the Covid-19 pandemic. They do not benefit from protected employment contracts, and thus do not always enjoy workers' benefits, social protection or workers' representation. This chapter recommends the following:

A significant number of working age people are employed in the informal sector as a survival strategy. Policies need to be developed to facilitate the transformation and development of the informal sector. This would provide decent work for the informal sector operators that tend to include more women than men. Such a transformation should aim at helping women to grow and evolve within the formal sector.

The quality of human capital in the form of education is significant in determining women's access to the labour market. This means that a policy aimed at increasing women's participation in the labour market, especially in the formal sector, should address their access to education. Participation in the informal sector may be due more to the limited employment opportunities within the formal sector, rather than to changes in the expected explanatory variables.

The access to the labour market results from the interaction between the demand and supply of labour. Therefore, addressing female participation in the informal sector may require addressing the demand side of the labour market in addition to the factors expected to determine women's participation.

Since the formal sector is unable to absorb the entire workforce, informal workers should be given proper skills and vocational training to be able to produce better-quality products in less time, which could also help reduce the wage gap between formal and informal sectors. This would allow them to grow and graduate from the sector.

There is a need to develop new ways of providing cost-effective alternatives in terms of childcare services in urban areas. Therefore, mothers may be discharged from their family duties and could participate in economic activities, which, in turn, could enhance their contribution to the household budget.

The plan of reducing informality among women entrepreneurs requires formalization initiatives, job-focused growth and extended social protection. This requires addressing the underlying barriers preventing women from accessing formal employment as well as growing and formalizing their business. This embraces reforming laws and customs which limit access to land and assets; addressing gaps in education and training, increasing access to credit; addressing labour market discrimination and providing childcare.

More appropriate statistics are needed to find what is the best solution to help informal women-owned businesses develop towards formalization. Moreover, besides the gathering of sex-disaggregated data, a gender analysis must be made a systematic part of the planning, monitoring and evaluation phases. Sector-specific results need to be collected and disseminated to understand why different women entrepreneurs are locked into the informal sector, the genuine risks that informality poses for them, and how to overcome them. As a start, understanding the true cost and benefits of registration, including the time spent and possible increases in coercion and harassment, would prove beneficial.

Response measures should foster the expansion of social protection coverage to informal workers in informal sectors, including timely cash transfers, food or in-kind distributions. Specific measures should also be tailored towards female workers with family responsibilities and duties, families that may resort to child labour as a coping strategy, as well as other vulnerable subgroups. Lastly, efforts should be made to strengthen the market linkages for local producers, while promoting decent work.

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Epilogue and Short Conclusion

This book has been a fantastic experience of collaboration between researchers and the project partners of the project “Pilot 4 Research and Dialogue”. The author Ali Mjella could unfortunately not embark on the journey until the end. He has sadly left us on February 12th 2021 after spending some time in intensive care. He was one of the pioneers of the past project Best Dialogue¹, promoting cooperation and dialogue between the Tanzanian government and the private sector.

This book has been a rich experience of working with people during very challenging times. Travels were restricted, and it was impossible for the European project’s team to come to Tanzania and meet with their Tanzanian counterparts. This experience has also proven to be rich in its diversity and approaches. We encompassed different research areas, and tried to grasp the difficult concept of resilience, as defined in the introductory chapter and throughout the book. Our project, Pilot 4 Research and Dialogue, is not over yet. We wish to continue to develop content and research in this area, together with the project’s pool of experts.

Naturally, the book could not address all the topics and possibilities. The methodology mainly relied on the authors’ fields of research, and on the existing available literature. We did not integrate more research on conflicts divides, refugees or key questions such as land use and urbanization. But the book approached disciplines such as the economy, political science, governance, climate change, deforestation, dialogue with the private sector as well as the question of gender equality and women’s rights. The Tanzanian context was troubled by the Covid-19 pandemic, the national elections, and even more by the global economic situation, and by the sudden death of the former president. But the country is equally experiencing an interesting transition with the new Presidency of Samia Suluhu since March 2021, the first woman President of Tanzania, representing and promoting Tanzanian development as well as unity. Some observers see this as a hope for the country’s future, as well as for Tanzanian women and minorities. The country is at a crossroad.

¹ [Our team | BEST-DIALOGUE \(best-dialogue.org\)](https://www.best-dialogue.org).

This book is about resilience in Tanzania and elsewhere, collecting diverse findings and analysis coming from different angles of approach.

We consider it as an achievement that most of the authors are Tanzanians, and that more than half of the authors are women. We also tried, as much as possible, to alternate chapters about theories, and chapters about field research, while remaining as concrete as possible. We cannot develop a general conclusion summarizing all chapters but there are some elements which could be further developed in future research studies and cooperation.

The first point will be about the economy's resilience. At the end of 2020, the East African Journal published news about the Resilience of Tanzania's Economy². In terms of macroeconomy indeed, the extractive industries enabled the country to have relatively positive figures. Exports of goods and services only decreased to \$8.856 billion in the year ending October 2020, compared to \$9.393 billion collected over the same period in 2019. That was attributed to a decline in exports of agricultural products such as coffee and tea, while inflation has remained stable. This is excellent news, as the country has had a tumultuous history of dialogue with the private sector, as emphasized by the introductory chapter of Dr. Donath Olomi and by the chapter co-written by Ali Mjella and Hans Determeyer.

However, this book has shown that beyond positive prospects, the current crisis, which has impacted the whole world's economy, has hit in particular the poorest and most vulnerable part of the population. More especially, those living from small farm agriculture and the large part of the population working in the informal sector have been strongly affected.

As one of the conclusions of this book, we advocate that the economic approaches should integrate analysis and study of the informal sector. This means that they should also embed an approach on society, poverty and coping strategies for people working in local farms or on local markets, who are not directly integrated into the mainstreamed economy.

As developed by Prof. William Pallangyo in his chapter, the people in the informal sector have been affected by a loss in opportunities and

² Tanzania economy resilient even with knocks of the coronavirus, <https://www.theeastafrican.co.ke/tea/business/tanzania-economy-resilient-even-with-knocks-of-the-coronavirus-3241838>, Tuesday Dec. 29th.

revenue, linked to an uncertain situation. The tourism industry also has been severely hit, with dropping figures as compared to 2019. This first chapter also clearly shows how people have adopted resilient coping strategies to adapt to the current situation, while an inclusive approach to lift many out of poverty would be needed, as part of the implementation of S.D.G1, and in order to strengthen the resilience in these difficult times. Dr. Kaihula Bizhaghazi confirms that, during 2020, women in the Tabora region and employed in the informal sector have experienced more severe difficulties in accessing employment, education or autonomy. This pandemic has also affected women and women's rights as an indirect consequence of economic losses.

The second conclusion developed in the second part states that there is no absolute autonomy in the current context (Nandonde, Gaborit). Global factors are strong winds creating pockets of vulnerability. The question of Multinationals and a lack of involvement of the local supply chains is raising questions on how to develop an economy more centred on local needs. How is it further possible to link sustainability efforts to poverty's reduction? The connection between the economy and SDGs, and the question of Trust networks appear as key areas for further research on resilience.

Prof. Elise Féron and Cecilia Svop Jensen also demonstrate in their chapter that conflict prevention and resilience are interrelated. The question of resilience can also have impacts on peace and stability. This is certainly an interesting element for future studies.

Climate Change appears as a central chapter of this book. It emphasizes that it already directly impacts droughts, floods, as well as increases the scarcity of resources such as water or electricity. Vulnerability in terms of climate is indeed a vicious circle, as environmental degradation will decrease the available resources. There is certainly more research and data needed on climate change impacts and on adaptive, resilient and inclusive solutions.

Awareness of the communities is part of the equation, as developed by Prof. Bushesha and I in a chapter on the protection of forests. Better governance in water management by the communities is also challenging, as demonstrated by Dr. Saida Fundi in her respective chapter.

In the third part, three different chapters, all very much complementary, address women's key role in developing resilience. While Theophil Michael Sule focused on the role of women in the different economic

sectors, Constantine George et al. developed a cross country comparative analysis on women in the informal sector in Dar es Salaam. Prof. Elise Féron elaborated upon the concept of ‘intersectional approach’ to be applied to gender analysis. This intersectional approach could be further integrated both in social sciences and in aid cooperation programs. It could indeed enable a better identification of structural barriers towards gender equality and towards further resilience.

This book focused on Tanzania by approaching both literature and field studies. It proposes a set of findings, analysis, and factors, as well as often proposes recommendations and ways forward. However, the questions of resilience and vulnerabilities are very much crossing borders, especially in the area’s economy, climate change and conflict prevention. This collective book gives an outlook of international development challenges. This book comes to an end as an achievement, but it could equally be considered as a beginning for future research and dialogue.

Biographies

Dr. Pascaline Gaborit: Dr. Pascaline Gaborit is co-funder and director of Pilot4dev: www.pilot4dev.com. The aim of PILOT4DEV is to connect stakeholders to boost sustainable development but also to create dialogue among institutions, stakeholders and civil society. Pascaline Gaborit graduated in social sciences with a PhD on Trust and Conflicts including questions related to resilience.

She published books and articles on cities, Sustainable Development, International Cooperation, Culture, Conflicts, Security and Gender. She has worked for the Global Relations Forum and for the Pilot Cities Network.

She organizes and moderates events, publishes reports, policy briefs and analyses, manages projects, and occasionally gives lectures at university. She is part of the scientific committee in several programs and European projects.

She currently works as an expert on a project about “Climate Resilient and Inclusive Cities” in Indonesia, India and South East Asia www.resilient-cities.com. The project focuses on climate adaptation, governance, and disaster resilient strategies. She is active in the projet Pilot 4 Research and Dialogue www.pilot4dialogue.com, and in the project LIFE Adapt Island <https://www.cayoli.fr/life-adaptisland>. She supported different local community projects in several countries.

Her main book publications include: “*The Strength of Culture for Development*” (2015); and “*European and Asian Sustainable Towns*” (2016), both published by Peter Lang International as well as “*La confiance après un conflit civil*” (2009), published by l’Harmattan.

She contributed to 2 international reports:

- The Hidden Cities Report, World Health Organization-UN Habitat, 2010
- The Second Urban Climate Change Research Network (UCCRN) Assessment Report on Climate Change and Cities (ARC3-2). Contribution to chapter 2: Civic Engagement

Dr. Donath Olomi: Dr. Donath R.Olomi has over 25 years' experience as an entrepreneur, trainer, consultant and researcher. He holds a B.Com, MBA and PhD. He has authored 3 books and a number of journal articles and book chapters on entrepreneurship and private sector development. He has consulted for the World Bank, IFAD, ILO, International Growth Centre, DANIDA, UNCTAD, IFAD, as well as governments and corporate organizations in Tanzania, Botswana, DRC, Djibouti, Ethiopia, Sudan and Uganda. He is currently a director of the Institute of Management and Entrepreneurship Development (www.imedtz.org). Dr. Olomi lectured at the University of Dar es Salaam Business School for 22 years till 2011, where he was the first director of the University Entrepreneurship Centre (UDEEC). He sits on the boards of various private and civil society organizations and is an editor of the Education and Training Journal.

Publications: Olomi, D.R; G.C. Urassa and M. Juma (2018). An inclusive approach to regulating the second economy: A tale of four Sub-Saharan African countries. *Journal of Entrepreneurship in Emerging Economies*. [JEEE-08-2017-0056](https://doi.org/10.1108/JEEE-08-2017-0056), ISSN: 2053-4604.

Olomi, D. R. (2004). "The Evolution of Entrepreneurial Motivation: Transition from Economic Necessity to Entrepreneurship", *The ICFAI Journal of Entrepreneurship Development*, 2004.

Rutashobya, L.K. and D. Olomi (1999). *African Entrepreneurship and Small Business Development*, Dar es Salaam University Press.

Dr. Élise Féron is the general coordinator of the Pilot4Research and Dialogue project. She is a Docent and a senior research fellow at the Tampere Peace Research Institute (Finland). She is also invited professor at the University of Louvain (Belgium), at the University of Turin (Italy), at the University of Coimbra (Portugal), and at the Université Lumière de Bujumbura (Burundi) where she co-convenes a Gender Studies Master Programme. She holds an Accreditation to Supervise Research (Docent) and a PhD in Political Science from the University of Lille (France, 2003 and 1999).

She has launched and participated in various projects in Europe and in the Great Lakes Region of Africa, and has chaired 7 major international projects over the past 15 years.

Her research interests include diaspora studies, post-colonial and decolonial studies, as well as gender studies. She is the author of more than 60 peer-reviewed articles and book chapters, 3 monographs and 7 edited

or co-edited books and special journal issues, among which the *Handbook of Feminist Peace Research* (London and New York: Routledge, 2021, co-edited with Tarja Väyrynen, Swati Parashar and Catia Confortini), and *Revisiting Regionalism and the Contemporary World Order* (Leverkusen-Opladen: Barbara Budrich Publishers, 2019, co-edited with Jyrki Käkönen and Gabriel Rached). She is also the author of around 30 policy briefs and research reports, and of more than a hundred conference papers.

Dr. William Amos Pallangyo holds a PhD in Development Policy and Management from the University of Manchester, United Kingdom (2006–2009), a Master of Governance and Development from the University of Antwerp, Belgium (2002–2003) and an Advanced Diploma in Public Administration from the Institute of Development Management–Mzumbe (1996–1999) (Now Mzumbe University). He is currently working as a Senior Lecturer in Leadership and Management at the Law School of Tanzania. Previously, he was working with the Open University of Tanzania as a Senior Lecturer and Director of the Open University Consultancy Bureau. He has taught for over 19 years in higher education institutions. He has conducted several studies in Public Administration, Public Policies, Governance and Development, Management Change and Management and Evaluation.

He has published five books on government reforms, research skills, managing consultancy, training of trainers, governance, leadership and development in Tanzania. He has published twenty peer reviewed journal articles on women and informal trades, organizational affective commitment, employees' compensation, training and development, quality of service delivery, religions and leadership, crimes and socioeconomics, uptake of insecticidal treated nets, mobile payment systems, customs union and trade facilitation, institutional decentralization, women and elections and political federation. He has participated in undertaking over forty consultancy assignments. He has provided technical advice to several Government Ministries, Departments and Agencies and Non-Government Organizations. Some of the advised clients include UNDP, ILO, the World Bank, UNICEF, Oxfam, Save the children, World Food Programme, OCGS, Revolution Government of Zanzibar (President's Office Constitution and Legal Affairs Ministry), Judiciary of Tanzania and URT (Ministry of Sports and Culture). Some of the assignments include informal sector and women traders' safety, Occupational Safety and Health (OSH) interventions in the tobacco sector, agriculture budget

making processes, strategic plan, open and distance learning, public policy, monitoring and evaluation, change management, youth and livelihood, decision making, Violence Against Children (VAC), Research Policy and Baseline Surveys.

Professor Magreth Shimba Bushesha is an experienced researcher and trainer in geography and environmental studies. She currently works with the Open University of Tanzania as professor in Geography and environmental studies. She obtained her PhD at the University of Bradford where she specialized in research related to climate change and livelihoods for rural people. Since then, she has executed a number of research projects including research projects in areas of climate change, natural resources management, rural livelihood systems and Environmental Impact Assessment. Prof. Bushesha has so far supervised over 40 research projects for master students and 8 PhD projects covering a diverse range of research topics in the areas of geography and environmental studies. Research outputs include publications in peer reviewed academic journals where Prof. Bushesha has so far published 30 journal articles. She also was honoured to examine several postgraduate dissertations and theses. Administratively, Prof. Bushesha is serving as Director for African Council for Distance Education-Technical Committee on Collaboration (March 2019 to date). She is also Chief Editor for Huria Journal of the Open University of Tanzania (January 2019 to date). Other positions she has held at the University includes Director for Quality Assurance and Control (2014–2017); Coordinator for Postgraduate Studies (2011–2014); and Head department of Geography (2004 – 2006). She is married with two children.

Dr. Felix Adamu Nandonde has a long experience of working with the private sector and SMEs in the agrifood business. He has a PhD in Business Economics from the Aalborg University in Denmark, an MSc from Newcastle University, in the UK and a Bachelor of Business Administration from Mzumbe University, in Tanzania. He was first Secretary of the Sokoine University Graduate Entrepreneurs Cooperative (SUGECO) that deals with advocacy, mentoring, coaching and supporting students to establish value addition activities in the agribusiness value chain (*Journal of African Business, African Management Review, Ethiopian Journal of Business and Economics, Journal of Business Research, British Food Journal, Journal of Language, Technology & Entrepreneurship in Africa, International Journal of Retail & Distribution Management.*) Felix has published five book chapters with IGI Global, Springer International

and Degruyter publishers. Mr. Nandonde has authored a handbook of Business Communication Skills with Mzumbe Book Project, Morogoro, Tanzania. He has provided consultancy to AICAD, JICA, ANSAF, and participated in different teams that work for DANIDA, the World Bank and Agrisol Energy. Before joining academia he worked with the National Bank of Commerce (NBC) 1997, Tanzania Limited as Sales Consultant Business Banking. Mr Nandonde has presented papers in various international conferences: Makerere Business School (Uganda), AIB-SSA at RIARA Business School (Kenya), York School of Management (UK), Aarhus Business School and Aalborg University (Denmark). He is a member of Academy of International Business, Association for Business Communication and Africa Academy of Management Science.

Recent Publications

- **Nandonde, F.A.** (2019). A PESTLE analysis of international retailing in the East Africa Community, *Journal of Global Business and Organization Excellence*, 38(4) 54–61.
- **Nandonde, F.A.** and Kuada, J. (2018). Perspectives of retailers and local food suppliers on the evolution of modern retail in Africa. *British Food Journal*, Vol. 120, Iss.2. pp.240–354.
- **Nandonde, F.A.**, Sachs, P.R. and Liana, P.J. (2017). Agribusiness CSR practices on the establishment of underdeveloped supply chains, in Vertigans and Idowu (eds), *CSR Academic Insight and Impact*, Springer, 83–100.
- **Nandonde, F.A.** and Sachs, P.R. (2017). Commercial bank corporate social responsibility practices in Tanzania, in Aluchna and Idowu (eds), *The Dynamics of Corporate Social Responsibility*, Springer.

Wambura Messo Mattuh is a Livestock officer at the Ministry of Livestock and Fisheries of Tanzania. He graduated with a Bsc. in Animal Science and Production from Sokoine University of Agriculture. He is currently working with the Ministry in the Department of Production and Marketing. He previously worked as a farm manager at the Tanzania Poultry farm based in Usa River Arusha - a farm with approximately 250,000 birds. He also worked at Sao Hill Livestock Multiplication Unit (LMU's) based in the Iringa region dealing with the production of heifers and pasture (Silage and hay).

Dr. Saida Seleman Fundi: She is a lecturer and acting as the head of the centre of policy and leadership (CEPOLE) at Mzumbe University, Morogoro, Tanzania. She holds a PhD in Public Administration from Mzumbe University, School of Public Administration and Management (SOPAM) attained in 2017 and M.Phil. in Public Administration and Organisation Theory from University of Bergen, Norway attained in 2002. Besides teaching, Saida has been a research supervisor for graduate and undergraduate students at Mzumbe University and engaged in a number of research and consultancy activities throughout her employment period. She has also been a trainer in public administration and governance, particularly in issues relating to public policy institutions, organisation behaviour, team management and conflict management in public, private and third sector institutions. Saida has authored and co-authored articles in national and international peer reviewed journals in areas of Public Policy and Institutions. Her most recent scholarly article is “Water Users Conflicts in Irrigation Schemes in Tanzania” *Journal of Public Administration and governance* Issue No. 4, Vol. 8, December, 2018, Macrothink Institute. Other articles include “Policy Implementation at the Cross-Road: Dilemma Facing Management of Water Allocation in Tanzania’s Selected Irrigation Schemes”, *Journal of Policy and Leadership*, Issue 1, Vol.5, (2017); “Addressing the Challenges of Implementing the Water Policy in the Wami-Ruvu Basin in Tanzania: Rethinking the Approach” *Journal of Policy and Leadership*, Issue No. 3 pp 122–143, January, 2014, *The Influence of Initiation Culture on Early School Leaving Amongst Girls: Experience from the Coastal Regions of Tanzania* in Zeelen et al. (2010) (eds.) *The Burden of Exclusion: Understanding and Challenging Early School Leaving in Africa*.

Mr. Theophil M. Sule: He is a Development expert with broad experiences in Community Development, Public–Private partnership, Program management, Management of Non–Government Organizations, and performance Based Financing in the Health Sector. He has a Master Degree specialized in International Community Economic Development from the Southern New Hampshire University; and a Bachelor degree from the University of Dar-Es-salaam in Land Use Planning. He has over 25 years working experience in development programs, teaching in educational institutions has consolidated his experiences and understanding on development interventions, and became an advocate of participatory planning for effective community Development in both rural and urban settings. His publications include:

- Sule, T. M. (2010). *Community Participation in Community Water Management. The Case Study of Rungwe District in Southern Tanzania*. Saarbrücken, Germany: Lambert Academic Publishing. 220 Pages (ISBN 13: 978- 3843369770)
- Sule, T. M. (2015). The Unpromising Government Agricultural Sector as a Stumbling Block for Rural Development in Tanzania. *Journal of Teofilo Kisanji University* 5; 56–67.
- Sule, T. M. (2020). [Review of the book by Robert, J.Thornton, (1980). *Space, Time and Culture among Iraqw of Tanzania*. London,UK: Academic Press. Pp. v–275, Paperback, Price £ 98.58, ISBN 0126905800]. *Ruaha Journal of Arts and Social Sciences*, 6 (1), 107–112.
- Book Chapter: Sule, T. M. (2020). *A Reflection on Social Inclusion and Social Participation for Person with Disabilities in Africa*. In *Changing Scenes of Disability in Church and Society*. St. Paul's University, Faculty of Theology in Kenya/ World Council of Churches–Forthcoming. He is currently working at Teofilo Kisanji University – at the Centre of Continuing Education Programs.

Dr. Kaihula Bishagazi (with a Doctorate in Business Administration) has over 10 years of experience as a lecturer at Saint Augustine University of Tanzania in the faculty of Business Administration where she also served as the head of Department of Accountancy and Finance for over 8 years. She has worked with Local Government Authorities in advocacy and sensitization of tax policy issues. She has also been involved in several consultancies on policy advocacy and Public Private Dialogues (PPDS) relating to Local Economic Development (LED). She is also an expert in the monitoring and evaluation of projects. Furthermore, she has led teams in major consultancies with SAUT relating to assessment of the financial sustainability of the University and its constituent colleges and appraisal of human resources policies.

As a CPA (T), she also trains accountants at both academic and professional levels where she has been involved in training accountants and district treasurers in different local government authorities, mining companies and several church institutions. Throughout the years, she has been a professional advisor in issues relating to financial accounting reporting, taxation, budgeting and strategic management. She is currently a board member of the Nyakahoja English Medium School

in Mwanza. Moreover, she has won several IUCEA scholarships for an exchange program to teach Independent University of Kigali in Kigali, Rwanda. The following are some of the important publications/research that she has been involved in:

- Bishagazi, P.K. (2020). The Role of Public Private Dialogues (PPDs) in Local Economic Development in Tanzania (Current Research)
- Bishagazi, P.K. (2020). Sustainable Local Development in Tanzania: Exploring Economic Activities and Challenges in Growing the Economy, *Journal of Public Administration and Finance* (Accepted for Publication)
- Bishagazi, P.K., Kaliba, A., & Gongwe, A. (2020). Financial Inclusion in Tanzania: Determinants, Barriers, and Impact. (Submitted for Publication)
- Desta, I., Bishagazi, P.K., & Kifle, T. (2019). Industry Characteristics and Voluntary Disclosure in Private Mining and Manufacturing Firms in Tanzania, *Journal of Developing Areas*, Tennessee State University, College of Business, 53 (3), 141–154, Summer.
- Bishagazi, P.K. (2019). An Economic Review of the fifth Government 2015–2019: The Past, the Present and the Future. A paper presented in the CCM-Mwanza Conference for Academicians held on 3rd August, 2019.

Hans Determeyer is a senior adviser and experienced team leader with expertise in the domains of business environment reforms, private sector research and advocacy, and approaches tailored to promote an optimally effective public-private dialogue environment, including knowledge management.

With a Masters in African Studies (Leiden University) he has developed a deep understanding of the history and cultural complexity of the African continent. This background allows for a good insight in longer term processes of systemic change as we saw accelerating around the turn of the century.

Over the past 30 years, Hans focused on the ambition of civic engagement in inclusive policy processes, delivering valuable results also in politically sensitive environments and across a broad range of sectors.

Cæcilie Svop Jensen is an MA student in Peace, Mediation and Conflict Research at Tampere Peace Research Institute (TAPRI) in Finland. She holds a BA in Peace and Conflict Studies from Malmö University, with a focus on the possibilities and limitations for civil

society organizations to contribute to peaceful change and conflict resolution. Her research interests include local peacebuilding initiatives, diaspora studies and youth-led reconciliation efforts in post-conflict societies.

Ali Ibrahim Mjella had more than 30 years' professional experience acquired during his time in public offices, as well as consultant. He has had a long association of supporting Tanzania's private sector in the provision of business development services, including training and conducting feasibility studies for various SME projects. However, his most outstanding contribution in supporting the private sector in Tanzania has been supporting work in the private sector to enable it to effectively dialogue with the government to introduce required business environment reforms for businesses to prosper. Earlier, as Research Manager and later as Development Manager, he had provided inputs for major investment decisions for the Tanzania Tourist Corporation and evaluated various joint venture and acquisition bids during the privatization process. He has taken part in several regional and continental based projects/initiatives such as participation in the development of the UNDP backed Peace and Security Agenda of the African Union, participation in the East African Business Climate Index Project that monitored non-tariff barriers within the partner states, assessment on the Impact of the Introduction of the Euro on the Economies of the African, Caribbean and Pacific (ACP) States for the ACP secretariat and Study on the Application of the Principle of Asymmetry in the Context of the East African Community Customs Union Protocol. In the field of business environment reforms for which he worked between 2004 and 2019, he had worked on building the capacity of private sector organizations to influence the government to address the chief bottlenecks that inhabit the business environment within the context of a Public-Private Sector partnership. His responsibilities included guiding private sector organizations in Tanzania to process advocacy project grants, including developing the projects' logic, budgeting for activities, preparing contracts and overseeing implementation and supervision of contracts according to the design of the program that has been operationalised through the Work Plan and M & E framework. He had also supervised the training of private sector personnel to build capacities in advocacy and dialogue skills, conducted by the University of Dar Es Salaam Business School. Also, as Deputy Team Leader of the BEST-AC and later BEST-Dialogue program, he had served as the chief assistant to the Team Leader in the overall delivery of program activities. Sadly, he passed away in February 2021.

Dr. Cornel Joseph is a Lecturer at the University of Dar es Salaam, Mkwawa University College of Education (MUCE) Campus. He also works as a part-time lecturer at the Ruaha Catholic University, Institute of Tax Administration and School of Economics, Nyerere Campus. Moreover, he is an external examiner at Mwalimu Nyerere Memorial Academy- Zanzibar campus; and a resource person of the National Examinations Council of Tanzania and National Board of Accountants and Auditors. Dr. Cornel has specialized in teaching and researching Public Finance, Labour Economics, Economics of Education and Development Economics. Moreover, he teaches macroeconomics, microeconomics and basic quantitative courses for undergraduate classes. He has a strong quantitative and analytical skill. At present he is working on the book chapter titled the determinants of the domestic saving shortfall in Sub-Saharan Africa: A country case study of savings in Tanzania. Also, he is working on the study of the fiscal regime for supporting rapid digital transformation in Africa.

Dr. Colman Titus Msoka received his PhD in Sociology in 2005 and is now a Senior Lecturer-Development Studies, at the Institute of Development Studies, University of Dar es Salaam. He has a background in population studies as well. His research focuses on the informal economy, social development and urban studies. He teaches: States and Development, Research Methods, Ethics, and Urban Development. He has authored and co-authored numerous articles and book chapters in the area of politics of development, urban informality and social -research methods. Also, he is a public commentator. Dr. Msoka has advised and supervised many works of postgraduate student and his collection of accolades is gradually building up.

Mr. Constantine George is a PhD candidate in development studies at the Institute of Development Studies, University of Dar es Salaam. His PhD study focuses on the *Challenges of Formalising Street Vendors' Businesses in Dar es Salaam City, Tanzania*. Constantine has a background in education, specialized in Educational Planning, Management and Administration. His other focus areas include qualitative research, business informality and quality control and assurance in education. Currently, he works as a researcher at REPOA-research institute based in Tanzania. Before joining REPOA for more than four years he taught undergraduate courses at the University of Dar es Salaam (MUCE Campus) and Ruaha Catholic University. He has co-authored a paper; *Mineral Extraction for Socio-Economic Transformation of Tanzania: The Need to Move from Papers*

to Implementation of Mining Policy and Law. Together with other members he worked on *Assessing Data for the Sustainable Development Goals in Tanzania (2016)*. At present he is writing papers on the Bargaining in the Taxation of Informal Sector in Tanzania and Uganda; and Shifting Financial Responsibility: The Financing of the Productive Social Safety Nets in Tanzania in co-authorship with other project members under Political Settlements and Revenue Bargains in Africa. Constantine holds a Master Degree in Educational Management and Administration (MEMA) from the University of Dar es Salaam.

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¹ Alfonse Shelukindo is a young entrepreneur in the sector of tourism and culture. He is promoting eco tourism, as well as women and communities. In his youth he had to muddle through difficulties to go to school, but he graduated brilliantly. His business area is now affected by the pandemics. www.magambaecoculturaltourism.wordpress.com

