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Building resilience of agricultural workers in the agrifood system in a post COVID-19 Era in Africa

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Abstract

In many economies in Africa, agriculture is the backbone for the economy. Additionally, it contributes significantly to the employment of many citizens in Africa. The COVID-19 pandemic affected various sectors across the world ranging from economically, socially, and physically. COVID-19 impacted agriculture and the work life of many agricultural workers in Africa. The effects of COVID-19 in African agriculture, calls for reengineering of the future and work life for agriculture workers in a post COVID-19 era. Agricultural workers are the drivers of agriculture, they are classified into various categories ranging from farmers, extension service providers, agribusiness development providers, among others. This paper through a theoretical review of thematic literature highlights how COVID-19 impacted on agricultural workers and agriculture in Africa. It also provides solutions towards the re-engineering of work life for agricultural workers in a post COVID-19 era. Reconstructing of work life in a post COVID-19 era is key to job creation and a food secure continent. This results in an active workforce and other economic sectors working well and a thriving continent. The paper entails findings that farmers, agribusiness service providers and governments in Africa will find useful to ensure sustainable agriculture in Africa. Agricultural service providers, local and international organizations in the agriculture space will use the findings to design interventions that will enable smooth transition in the work life in a post COVID-19 era leading to a thriving agriculture landscape in Africa.

Keywords: Resilience; Agrifood system; Agricultural Workers; Post COVID-19; Africa

1. Introduction

For many rural people in Africa, agriculture is recognized as a key contributor to economic growth and a primary source of livelihood. Various research studies have highlighted the role of agriculture in food and nutrition security, employment creation, and reducing poverty and society inequality in Africa. COVID-19 pandemic has affected the global food and agricultural system in many levels and affecting agricultural workers and food crisis globally (Timilsina et al., 2020). Since the virus started spreading widely, food systems disruptions affecting the life of agricultural workers has been noted. The World Food Programme estimated that due to the crisis, serious hunger will face 130 million people. Around the world, 822 million people are staring at chronic hunger (Ilesanmi et al., 2021).

Measures such self-isolation, restrictions on travel and social distancing increased the agricultural labor crisis since a number of agricultural agencies were closed down permanently. Stoppage of transportation and shutdown of borders led to deficiency of migrating agricultural workers. All this affected market prices leading to farmers struggling to make profits as many farmers quit agriculture. In agricultural systems that are rainfall dependent, the slightest delay in harvesting or agronomic practices leads to serious loss for farmers, due to reduced production of food leading to a food problem affecting agricultural workers (Mishra et al., 2021).

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The nature of the workplace is dynamic, advancements in technological are altering requirements in agricultural labour market. A mix of these transformations coupled with economic stagnation causes problems to finding decent work opportunities for many individuals. It is therefore essential to prepare youth with education, ambition, aspiration, and the necessary skills, to be employable. As a result, focus needs to shift to thinking about required actions for people to be engaged in society, creating an enabling environment while removing obstacles for agricultural workers engagement and specifically for young people to thrive (Ilesanmi et al., 2021).

African governments have tried in their efforts to increase investments in agriculture, but these efforts are yet to reach the desired goals. For example, the African governments in 2006 launched the Comprehensive African Agricultural Development Program (CAADP) that commits them by 2025 to spend at least 10% of their total budget on agriculture. Recent data shows that only Zimbabwe, Malawi, and Mozambique had met or surpassed this target, with Rwanda, Zambia, and Niger close to achieving the target. As of 2017, out of the 47 African Union countries only 20 reporting remained on track to meet the commitments (Morsy et al., 2021).

To drive socio-economic transformation in Africa, agriculture has been identified as a sector that could stimulate broader participation of marginalised groups in the economy. However, Covid 19 pandemic among other factors has hindered the achievement of the desired outcomes. The desired job opportunities are not forthcoming while the existing jobs are threatened to extinction by the Covid pandemic. This paper, therefore, aimed to assess the effects of Covid 19 on agricultural work life in Africa and propose solutions towards reengineering the work life for agricultural workers in a post COVID-19 era in Africa. Further the paper assesses opportunities amidst COVID 19 pandemic that can be tapped into create more sustainable jobs in the agricultural food system in Africa (Ilesanmi et al., 2021).

1.1. Agriculture in Africa

According to Rogito et al., (2020), agriculture in Africa is mostly rain dependent, in many countries smallholder farmers dominate the scene and tend to have limited irrigation use, and face serious institutional biophysical and challenges coupled with a neglect of the sector in some areas. Degraded soils, climate change, biodiversity loss; inefficient credit markets and lack of insurance are some challenges faced by the sector. These challenges affect efforts by agricultural workers to reduce food insecurity. However, the agricultural sector also presents entrepreneurship opportunities, for employment creation. Africa's urban markets is experiencing increasing growth which further presents an opportunity for increased demand for processed foods. As a result, this would attract private sector investments for medium, small, and large agribusiness players. Meeting the potential of African agribusiness could open markets by 2025 estimated at more than US\$100 billion per year and create additional job opportunities for agricultural service providers (Rogito & Rogito, 2022).

Across the globe agricultural systems have changed over the years. The "first agricultural revolution" or "Agriculture 1.0", that involved settled farming, hunting and gathering. The British agricultural revolution also referred to as "the second agricultural revolution", in the 18th century, saw an increase in agricultural production. This could be attributed to improved land productivity from agricultural mechanization. The "third" Asian Green Revolution was a technology package of modern pest control, irrigation, synthetic fertilisers, and hybrid seeds in the 1960s. In recent time we have Agriculture 4.0, the "fourth agricultural revolution". Its is said to be a potentially game-changing transition even though it lacks a universally accepted definition. It involves the adoption of high technology solutions such as precision agriculture, cloud computing, drones, sensors, biotechnology, smart farming, and robotics. At the back of it, is the idea of sustainable intensification in food production and better agricultural systems (Rogito & Nyamota, 2022).

In 1990, the Asian Green Revolution ended, it was praised for reducing poverty, resolving food crises, and offering key lessons for sub-Saharan African countries. However, the Asian Green Revolution was also very controversial. Inability of smallholder farmers to compete with larger farms was part of the criticism it received, which led to increase in fertiliser use and increased inequality amongst farmers. Limited finance, infrastructure, extension services among others limits entrepreneurship in agriculture. The youth's socioeconomic environment mainly portrays farming as a "poor man's" occupation, due to long working hours with low economic returns. Covid 19 pandemic further complicates the agriculture workspace and landscape (Rogito & Rogito, 2022).

1.2. Covid 19 and Agrifood systems in Africa

The pandemic had many effects across many sectors around the globe. Africa was not been left behind in the global crisis. Africa as well adopted various measures to curb the virus. These measures impacted on the people livelihoods and farming activities and the millions whose dependence is on agricultural activities. One of the policies used to minimise the virus spread was the lockdown. These measures greatly affected many agricultural workers (Mishra et al., 2021).

In Africa, countries that acted earlier and implemented drastic measures and were able to shorten duration of the restrictions and minimise the economic damage. The spread patterns of the virus showed mutual dependency around the world. Disease control and economic activities reduction in one area indicated that independent nations policy affects others. Reductions in productivity was evident in many nations, affecting the food demand from away. A shift in agricultural labour requirements was also noticed (Ojokoh et al., 2022).

1.3. Agricultural workers in Africa

An agricultural worker is one who tends livestock and maintain crops. The tasks are usually outdoor and done in all kinds of weather. Many agricultural workers work full time, while others work more than 40 hours per week. For many agricultural workers a formal educational credential is not a mandatory requirement to enter these occupations; however, there are a few exceptions that require a high school diploma or an advanced degree. An on-the-job training is necessary for many agricultural workers. It is projected that employment of agricultural workers will grow 2 percent from 2020 to 2030. Albeit the limited employment growth, around 139,800 openings for agricultural workers are projected each year. Most of these openings are expected to result from the need to replace workers who exit the labour force or transfer to different occupations or retire (Mohamed et al., 2021).

Before the effects of pandemic, many Africans were already affected by food insecurity, unemployment, and poverty. Their already dire situation was dealt a blow with the pandemic. COVID-19 had both direct and indirect impacts such as interruption of food supply chains, deaths of food workers, depreciation of currency value, disrupted social programs, and unemployment (Rogito & Rogito, 2022). In Africa, there is need for the COVID-19 situation to be observed carefully and timely interventions be made to safeguard agricultural vulnerable African communities (Mohamed et al., 2021). Agricultural workers play an important role in the agricultural system. In Africa, the covid 19 pandemic has greatly affected the workers affecting how they run their day-to-day activities while driving any agricultural workers out of the workforce and as a result collapse of many industries (Rogito & Rogito, 2022).

2. Agricultural Work Life in Agrifood systems in Africa

An agricultural worker is one who is employed to offer labour in agriculture. In labour laws, the term "farmworker" is occasionally applied narrowly to hired worker involved in harvesting, production, but not one in on-farm jobs, like fruit picking. Depending on degree of mechanization, context, and crop, agricultural work varies widely. In places where is declining population of people working on farms, temporary skilled labour from outside the country is recruited for labour intensive crops. Agricultural labour is usually affected by the human health impacts of agriculture stemming from environmental related issues. To address the immigration challenges, environmental concerns, economic justice and environmental justice, marginal working conditions, labour rights and movements have been organized or supported by farmworkers (Rogito & Nyamota, 2022).

For most of the population in African countries, agricultural sector is the main provider of employment and income. The rush towards the agricultural sector observed for decades leads to the believe of massive source of wealth. The labour force in developing countries is 4.5 times more productive outside agriculture. In middle-income countries, this ratio is 3.4, and in high-income countries, it is 2.2. In four Sub Saharan Africa countries that agricultural sector is not a bastion of low productivity, but rather a large reservoir of underemployed workers. In African countries, the non-agricultural labour force is six times more productive outside agriculture (Mishra et al., 2021).

2.1. Crisis and Agricultural Work life

Although the continent has the most important potential of arable land in the world, the standby lands and under-exploited ones are relatively concentrated in small countries, and massive lands covered by forests. Cultivable lands are closely related to their productivity and access to market. The rise in productivity in the African agricultural sector remains the most likely issue for improvements to the wellbeing of rural households through effective jobs creation in off-farm sectors (Mishra et al., 2021).

Agriculture in Africa are greatly affected by shocks from droughts and pandemics. Drought minimises output hence a direct effect on agriculture. Viruses has no cure hence, societies must navigate through restrictions on movement and reduced income, travel restrictions, social distancing, impacting on both food demand and supply (Mishra et al., 2021). Recently, researchers on food security, and poverty have realized that in Africa, malnutrition and hunger related with virus could destroy more people than corona virus itself and lead to massive loses of agricultural jobs for agricultural workers if not addressed (Moseley & Battersby, 2020).

2.2. Covid 19 and Agricultural work life and agrifood systems in Africa

The pandemic has had many effects across many sectors around the globe. Africa has not been left behind in the global crisis. Africa as well adopted various measures to curb the virus. These measures impacted on the people livelihoods and farming activities and the millions whose dependence is on agricultural activities. One of the policies used to minimise the virus spread was the lockdown. These measures greatly affected many agricultural workers (Mishra et al., 2021). With the appearance of value chains of foodstuffs and industries comprising a source of major employment at the level of transformation, food preparation, packing, distribution, wholesale and retail selling in urban or rural areas we can observe a growing off-farm sector in some African countries. Rural economy, aside from the agricultural sector, progresses quickly and leads to economic transformations (Pu & Zhong, 2020).

In addition, the rise in agricultural production and the demand for foodstuffs in rural and urban markets will steadily increase post-harvest activities, and thus, the demand for off-farm employment will increase significantly. The greatest effect of the pandemic in Africa has been on labour inputs were on restriction of movement. Farmers were not allowed to meet or move except for shopping of necessities. Farmers were not the only group of agricultural workers affected, those working in international, and local rural development were affected. Agribusinesses, Small and Medium enterprises were also affected, and many being pushed to extinction (Pu & Zhong, 2020).

3. Effects of Covid 19 on Agricultural work life in Africa

According to Lal (2020), many aspects of life was affected by the Coronavirus pandemic both positively and negatively. This ranged from agribusiness, education, health, economic, and information sectors in Africa. To reduce transmissions, various measures such as social distancing, restrictions of movement, lockdown and hand washing were put in place that affected agriculture. The measures however led to serious losses in the agribusiness sector due to reduced workforce.

3.1. Negative effects of Covid 19 on Agricultural work life in Africa

Restrictions of movement, hand washing, border closure, social distancing, and lockdown measures were implemented in light of covid 19 to cut the transmission chain that affected workers. This led to reduction of workforce for production in agribusiness (Yaya et al., 2020). The key source for people's livelihoods in rural areas is agriculture. Disruptions in logistics and transport made it hard for farmers to access inputs and services and market produce. Food consumption in events, schools and restaurants, was minimised by social distancing protocols as consumption moved to homemade food. Demand and supply of food was affected by the global pandemic where all sections of the agri-food chain of supply was hindered. Traditional food intermediaries and the food service sector who rely on the informal workforce were highly affected. (Yaya et al., 2020).

Large cities such as Nairobi and Lagos, informal sector is depended upon by the larger population for livelihoods, due to COVID, majority had no finances to buy food. Sudden job loss that used to provide daily wages was the major cause. The food system sector recorded the highest level of unemployment and job losses. Around the world, most people work is informal. Unemployment is still on the high despite the COVID situation slowing down as many sectors will take longer to get back to their feet (Timilsina et al., 2020).

3.2. Positive effects of Covid 19 on Agricultural work life in Africa

The pandemic however, led to modifications of food processing procedures reduce the spread of the virus. Technology innovation was used to minimise disruptions in food supply chains. Automation in harvesting, processing and delivery has increased leading to shorter supply chains and diversification in agribusiness (Siche, 2020).

Organizations such as the African Development Bank (ADB), the World Bank, International Monetary Fund, International Fund for Agricultural Development made commitments to fight against COVID-19 in Africa. US\$10 billion was announced by the ADB to help African economies address food challenges from the impacts of the COVID-19 pandemic. Jobs in the sector were created by the funds so as to revamp the sector (Clapp and Moseley, 2020). The food delivery services sector is expanding as people are not travelling and are used access to food stuffs at their doorsteps. have had There is an increased demand in food products believed to boost immune systems. is expected to rise. With food systems now becoming more structured, modernization of agri-food supply chains is necessary (Otegunrin et al., 2020).

Covid 19 led to the rise of modern agricultural approaches such as farming of novel foods, urban subsistence, and vegetables for consumption. Novel foods popularity and demand are on the rise rapidly with acceptability and adoption

rising quickly. The net effect is that employment opportunities are being created in the peri urban and urban and agri-foods systems that push towards stronger food supply chains. Urban food production is poised for a major success as the supply chains are shorter (Eziregwe et al., 2021).

4. Building the Resilience of Agricultural Workers in the Agrifood System in a Post COVID-19 Era in Africa

Agriculture in a post Covid 19 era will change the culture and certainly change the way of work life of farmers and agribusiness, this cuts across high and low-income countries. Revamped agriculture in a post Covid 19 era is the way forward for society in general. There are however some ethical and social implications of adopting reforms and technologies. Limited consideration in the design and implementation processes has been put in many of the proposed reforms in work life. There are steps that leaders as well as agriculture workers in Africa need to take in post Covid 19 era so as to re-engineer the work life of agricultural workers (Nchanji & Lutomia, 2021).

4.1. What African leaders should do

There is need for leaders in Africa to strengthen institutions, governance, and ethics with the rise of working from home and flexible terms without strengthening institutions productivity may most likely go down. There is need for ethical values to be inculcated in employees so as to enhance the efficiency at the workplace. With the rise in remote working, today more than ever there is need to enforce proper governance structures (Rogito & Nyamota, 2022). There is need for manager and leaders to ensure people are rewarded for what they achieve. Leaders need to adopt an ethical approach to managing people (employees). This will in turn enhance and improve the mental and physical well-being of employees leading to enhanced productivity. It is important for leaders to realize that they are managing a diverse workforce, considering individual and group differences in work style, employment needs, and aspirations. Leaders should avoid generalization of rules and interaction with agricultural workers and focus on output driven rather than time focus (Rogito & Nyamota, 2022).

In many African countries a low density of fixed telephone landlines, poorly developed physical infrastructure and lack of physical bank branches is the case. There is need to leapfrog digital infrastructure and technology opportunities. Economic development in Africa might historically have been constrained by limited technology development. In the recent past however, African countries have proven able to make steps in advancing technologies (Rogito et al., 2020).

Leaders need to enhance health and safety of workers. Covid 19 affected many agricultural workers and many today are concerned more about their health and safety over and beyond the financial returns as health and safety is more sustainable than finances. This consideration will enable organizations to obtain and retain committed, and motivated workers. Over and beyond this in such a fast-paced world there is need to develop the capacities of people through providing development and training opportunities amidst the COVID 19 pandemic with more technological advancements expected. There is need for developing the business as learning organization, where employees are given opportunities to learn that will increase their capacities to make more significant contributions (Rogito & Nyamota, 2022).

Leaders need to create a climate in which harmonious and productive relationships is maintained between employees and management and mutual trust developed. These environments will lead to innovative thinking to address complex situations in light of Covid 19. There is need to develop an environment in which flexibility and teamwork can flourish. The pandemic has taught the world the need for flexibility rather than rigidity (Eziregwe et al., 2021).

4.2. What Agricultural Workers should do

The current agricultural system needs innovative and adaptive thinkers. The disruptions in the food system demands that agricultural workers should be innovative and move with the changing times and systems. Use of advanced technologies is the way to go in the wake of rapidly changing systems. There is need for agricultural workers to enhance their learnings to include use of advance Information and communication technologies. Agricultural workers who do not embrace ICT will soon be redundant as solid steps are being made towards achieving an African agriculture with a looped system (Rogito & Nyamota, 2022).

Foster team spirit- in a post Covid 19 era agricultural workers need to foster a stronger team spirit. With changing human resource structures where people are working from different location and changing systems there is need for continuously working together and fostering collaboration to achieve set targets (Lal, 2020). Flexibility is required today more than ever. The pandemic taught lesson that organisation and individuals who are flexible are more effective

and sustainable. The workers should be open to learning and adopting new principles in production, reporting and marketing in the agricultural space so as to thrive. Agricultural workers should also be flexible to travels and working in conditions away from home (Eziregwe et al., 2021).

African agricultural workers should take an active role in ensuring their own health and safety at the workplace. Many countries have developed and ratified health and safety laws in the agricultural space. However, in many countries and regions these laws are just in writing with little being applied in the farms or workspace. The employees should be quick to report any changes in the food system and workplace so that they can be addressed by the management (Lal, 2020). With the future of work changing and tilting more towards consultancy and output driven jobs, agricultural workers need to brace themselves to more short-term assignment based on output rather than taken in the office. They need to work more on ensuring expertise in their given fields.

5. Conclusion

Food systems and the livelihoods of agricultural workers in Africa has been impacted by the COVID 19 pandemic. In Africa, countries face the triple risk of COVID-19, drought and hunger. Covid 19 poses major issues affecting workers in the quest to achieve food security and job opportunity goals. The bible provides adequate lessons from history on how agricultural workers like Joseph and Elijah dealt with pandemic shocks in the past. There is a need for an attitude change by agricultural workers and a paradigm shift in African agriculture. In Africa, some countries have begun pushing programs and initiatives to improve the lives of agricultural workers considering the pandemic. These programs include facilitating access to resources, skills development, and promotion of agricultural innovation. These interventions will lead to improved livelihood of agricultural workers.

Recommendations

COVID-19 is a wakeup call as it tested the resilience of agricultural workers and the food chain system. Time for action by actors in the agricultural space and priority setting for African Agriculture is now. Development partners and African governments need to act quickly to ensuring farmers use advanced machineries such as quality seeds, autonomous tractors, enhancing fertilizers, seeding robots, and drones. A direct financial funding on vulnerable African farmers is needed, for the agricultural sector to be resilient to the pandemic.

Adequate stakeholder engagement needs to be done enhance sharing of ideas to address the effects of the pandemic by understanding the struggles of agricultural workers. There is need to enhance and facilitate access to resources, skills development and promoting agricultural innovation. These interventions will lead to improved livelihood of agricultural workers through various innovations.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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