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The Decimation of Organic Farming in Africa: A Threat to Human Health

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Abstract: The purpose of this paper is to conceptually analyse and demonstrate how the decimation of organic farming in Africa is a threat to human life. It argues that the decimation of organic farming has negative repercussions on human health. Organic farming in Africa has been an issue of contention in governments, businesses and society at large. This paper examines the factors behind the reduction in organic farming in Africa, including issues such as soil degradation, Genetically Modified Organisms (GMO) foods, political and economic pressures and the growth of single crop cultivation. Furthermore, the paper underscores the potential consequences of this trend on human health, nutrition and the environment. This problem is of great concern, as the decline in organic agriculture also impacts human well-being. This leads to insufficient nutrients in people's diets and a higher consumption of GMO foods. As a result, it is not surprising that there is a reduction in life expectancy in Africa due to inadequate consumption of organic products. For centuries, organic farming has been significant in Africa as a sustainable method of food production, contributing positively to the well-being of the community. However, the decline in organic agriculture in Africa, primarily driven by the expansion of industrial agriculture, poses an increasingly serious risk to human health and existence. The decline in organic farming in Africa not only erodes the traditional values and customs of the continent, but also imperils the survival of rural and urban societies. Consequently, the issue of organic agriculture in Africa requires immediate attention from policymakers, researchers, and the general populace. This is a conceptual paper that relies on a literature-based approach to conceptually demonstrate the decimation of organic agriculture in Africa that ultimately threatens human health and reduces the life expectancy of African people. Therefore, this paper recommends the resuscitation of organic farming through livelihood practices such as small-scale farming in rural areas.

Keywords: *Africa; Human Health, Life expectancy, Modified Food, Organic Farming.*

Introduction

Organic farming is cultivating crops without the use of synthetic chemicals, including fertilisers, pesticides, fungicides, insecticides or genetically engineered seeds (Uhunamure et al., 2021). About 0.2% of the agricultural land in SSA is currently used for conscious organic farming (Scader, 2021). According to Vidya et al. (2023), organic foods are grown without the use of chemicals at any stage of the process, from seed sowing to harvesting. Nutritious food is essential for human survival. Organic food items are now considered necessities in the modern world, as they are crucial to human health and well-being. Organic farming has long been considered a viable way to improve food security, protect biodiversity, and advance environmental sustainability. It is characterised by sustainable agricultural methods and the avoidance of synthetic inputs. Organic farming can solve many problems while using the natural resources of Africa, a continent where agriculture is essential to the economy and way of life of many nations. However, the demise of organic agriculture in Africa has become a serious issue, endangering the region's prospects for sustainable agricultural growth. This paper makes the case that the decline of organic farming is bad for people's health. In Africa, organic farming has generated debate among companies, governments and the public.

This paper explores the reasons behind the decline of organic farming in Africa, including problems with GMO foods, degraded soil, pressure from the political and economic spheres, and the rise of monoculture. In addition, the acceptance and growth of organic farming practices is impeded by socioeconomic factors such as restricted financial availability, inadequate infrastructure, and lack of technical expertise and training. Due to their limited resources and susceptibility to market changes, smallholder farmers who make up a large majority of Africa's agricultural workforce face unique hurdles when trying to make the switch to organic farming practices (United Nations Environment Program, 2018). Organic farming is in decline due in part to environmental deterioration, which includes loss of biodiversity, water pollution, and soil erosion. Unsustainable land management methods lead to land degradation, which lowers soil fertility and resilience and diminishes the viability of organic farming (Oborn et al., 2019). Furthermore, because organic farming systems depend on natural pest control methods and biological processes, they face additional problems from the impacts of climate change, including droughts, floods, and pests. Wide-ranging effects result from the destruction of organic farming in Africa. It makes it more difficult for the area to achieve food security because organic farming practices have been shown to increase resistance to climate variability, improve soil fertility, and improve water management. Additionally, organic farming protects the public's health by promoting agrobiodiversity and lowering the hazards of chemical exposure.

Problem Statement

Africa's organic agricultural industry is in serious decline, endangering the continent's prospects for economic progress, environmental preservation, and public health, as well as sustainable agriculture and food security (Tambo et al., 2019). Adopting conventional farming methods, in conjunction with several socioeconomic and environmental variables, has resulted in the collapse of organic farming practices and the loss of the benefits that come with them, despite Africa's abundant agricultural resources and traditional farming practices (Abate et al., 2019). In Africa, organic farming has generated debate among companies, governments and the public (FAO, 2019). The decline of organic farming in Africa can be attributed to several factors, including degraded soil, genetically modified foods, political and economic pressures, and the rise of monoculture. Due to insufficient use of organic goods, a greater intake of genetically modified foods lowers life expectancy in Africa. There are several reasons why organic farming is declining in Africa. The growing use of conventional farming practices, which mainly rely on synthetic fertilisers, pesticides, and Genetically Modified Organisms (GMOs), is an important issue. Government regulations and commercial pressures that put an emphasis on quick profits and large yields frequently encourage these conventional methods, marginalising organic agricultural techniques in the process.

Methodology

Definition and Purpose

Research methodology denotes the organized structure and data collection processes employed to execute research and guarantee that the results are valid, trustworthy and credible (Smela, Toumi, Świerk, Francois, Biernikiewicz, Clay & Boyer, 2023). It includes the comprehensive strategy, layout, data gathering methods and analysis techniques utilized by the researcher to tackle a particular research problem or question (Verma, Verma and Abhishek, 2024). Essentially, research methodology offers the framework that directs the complete research process, from setting objectives to the analysis of the findings (Creswell, 2014).

The purpose of research methodology is to guarantee that the research is performed in a systematic and rational way. It may also assist researchers in selecting suitable techniques that match their research goals and maintains uniformity across the study process. Clearly outlining the research approach of the study whether qualitative, quantitative or mixed method, allows methodologies to help researchers collect and evaluate data in a structured manner, which decreases bias and improves the precision of the results (Suanders, Lewis & Thornhill, 2019). Additionally, research methodology offers justification for the selected methods, enabling the targeted audience or readers and reviewers to a larger extent, fathom the reasoning behind the specific techniques used (Bryman, 2016). This clarity enhances the reliability of the study and is essential for converting concepts into organized questions that yield significant and reliable outcomes.

Research Approach

The paper used a qualitative research approach, which is backed up by a methodical to literature review (Enaifoghe, 2026). The approach is also similar to a literature-based methodology in which secondary data have been employed to provide the authors with an opportunity to acquire a comprehensive grasp of the fundamental causes behind the decimation of organic farming in Africa. Mamokhere (2022) understand it as desktop research, which is often referred to as desk-based study or literature review, has been utilized in the research conducted. The desktop study is a research

approach that entails collecting and examining current data and information without performing original field research (Mamokhere, 2022). It depends on making use of accessible materials including books, journals, reports, databases, and web-based resources to collect pertinent details on a particular subject or research study.

Data Collection

This paper utilized information from peer reviewed academic papers, reports, periodicals, publications and internet sources as well as mainstream texts. Therefore, key words such as organic farming, farming, human health and genetically modified organism or crops *inter alia* were used in different search engines to get the relevant information. The search engines used were Google Scholar, Proquest, Science Direct, Sabinet, EBSCOhost, SAGE and Google. However, it is fundamental to mention that the paper did not employ a systematic methodology in searching for literature. It did not use the PRISMA model to systematically search for data. Though systematic methodology was not employed fully, the paper only used inclusion and exclusion criteria to get the most pertinent literature that assisted in achieving its purpose.

Inclusion

The paper included articles written in English. It also included articled published from 2007 to 2026. Articles with the title "organic farming" and articles that talks to "health and farming" were included. However, only relevant articles pertaining to the subject under investigation were included.

Exclusion

The articles that were not in English were excluded. Articles which were conducted outside of African continent were excluded. Duplicate studies or reports already included in other reviewed sources were also excluded.

Data Analysis Techniques

The selected data were examined through thematic content analysis, which is more effective as clarified by Anderson (2017). The researchers critically immersed literature and gotten into the nitty-gritties of literature to understand the literature and create themes thereof. From such critical engagement of literature, the following themes were developed and interpreted.

- Patterns and Consumption of Organic Food and Modified Food
- Genetically Modified Food and Human Health
- Factors Contributing to Poor State of Organic Food or Farming in Africa
- Ethical Considerations
- Adopt or Die: The status-quo of Organic Farming in Africa

Bias Mitigation

Avoiding bias in this paper required a deliberate methodological rigor, balanced form of arguments, consistency of arguments, authority argument, transparency in the use of secondary sources. Since conceptual papers rely on secondary sources and theoretical interpretation, the peril of subjective influence is significant if not carefully managed. To reduce bias, authors have ensured the use of diverse and credible sources. Hence, authors have consulted peer-reviewed journals, policy reports and credible publications form well known international organization. Authors were not emotionally attached in critical synthesis of literature, hence, author remained objective in their analytical approach. Moreover, the inclusion and exclusion criteria were used to further minimize bias in the paper.

Ethical Considerations

Due to the nature of the paper being purely conceptual and adopted a literature-based methodology, it did not involve direct contact with people. To ensure academic integrity, the paper acknowledged all sources used to avoid academic plagiarism.

Literature Review

This section focuses on the adopted Ecological Modernization Theory (EMT). Additionally, it covers themes such as the patterns and consumption of organic food and GMOs, factors contributing to poor state of organic food or farming in Africa and the Adopt or Die: The status quo of organic farming in Africa. Therefore, a review of literature was done and different perspectives from different scholars were synthesized.

Ecological Modernization Theory

The paper adopted the Ecological Modernization Theory (EMT). This theory emphasizes the need for economic and technological innovation to address environmental degradation while maintaining development goals (Vilpoux et al., 2021). Therefore, organic farming fits well within EMT as it promotes sustainable agricultural practices that conserve natural resources, reduce reliance on chemical inputs, and enhance human health. Furthermore, this document aligns with SDG 15: Life on land. Organic farming supports biodiversity conservation and combats desertification and key factors in preserving terrestrial ecosystems (Muhirwa et al., 2023). The erosion of organic practices jeopardizes the health of the land, making the achievement of SDG 15 harder. Therefore, the decline in organic farming in Africa is not only an environmental and health concern, but also a significant backward in the achievement of several SDGs.

Patterns and Consumption of Organic Food and Modified Food

The supply side of organic products has shown a significant and continuous expansion due to recent increases in demand and consumption (Nunes, Madureira and Veiga, 2021). According to the study by Kamble and Vidya (2023), organic food products are more expensive than conventional food products, but are also much more popular and in demand. The most significant factors that influence customers' preferences for organic food items over conventional ones are their quality attributes, which include overall appearance, taste, freshness, health and nutritional value, and general attractiveness. Portugal has followed the global trend in consumption, which has also resulted in a notable development in production. Between 2010 and 2017, the number of organic producers in Portugal nearly doubled, from 2434 to 4267 (Kamble et al., 2023). Many researchers are driven to understand, describe and elucidate the behaviour and motivations of organic consumers, as it is essential to the sustainable growth of businesses in a highly competitive market segment. This is due to the growing consumer interest in the product and, as a result, the emergence of an increasingly attractive market segment. Some consumers essentially base their decisions on the belief that these foods are more nutritious, healthier, and environmentally friendly. These attributes, namely credence attributes, although they cannot be objectively evaluated even after purchase or consumption, play a very relevant role in the purchase decision process.

Food taste is the most crucial attribute of experience, as consumers associate organic products with foods that are tastier than conventional ones, since they are produced in a more natural way and therefore have a cleaner taste. A study by Vidya and Kamble (2023:11) suggests that the consumption of different organic foods by respondents reveals that 70 to 72% of respondents were consuming organic vegetables, fruits, and cereals. Around 60 % consumed organic oils and pulses. The nuts consumed was 55% and the spices consumed was 46%. Only 30 to 32 percent of the respondents consumed organic fruit juices and masala powder (Vidya and Kamble, 2023). Therefore, this evidence is a clear indication of the high level of consumption of organic food.

Genetically Modified Food and Human Health

One of the reasons for the proliferation of GMO foods is commercialization. Therefore, Das and Bhartia (2020) estimate that more than 30 000 food products on grocery food shelves are modified. Genetically modified crops have transformed agricultural biotechnology since their introduction in the mid-1990s, igniting discussions regarding their safety, ecological effects, and ability to address worldwide food security challenges (Amanullah, Nahid and Hosen, 2024). Because in recent years, there have been growing trends and concerns about the obsession of commercializing food at the expense of human health. The rise of GM foods represents the ongoing effort of humanity to boost agricultural production, guarantee food security and meet the nutritional needs of an expanding population. Concerns and debates revolve around two schools of thought: (i) that Africa must go back to genesis (organic farming), and (ii) that GMO foods are necessary to feed the growing population. However, the debate is ongoing. What is imperative is that perhaps, practicing subsistence farming (which embraces organic farming) instead of commercial farming (which is obsessed with profit maximization) could be one way to improve human health. By creating modified seeds (crops) that are resistant to pests and drought, genetic engineering has offered a viable way to improve food production (Das and Bhartia, 2020).

Factors Contributing to Poor State of Organic Food or Farming in Africa

According to a study by Sapbarner and Thammachai (2021:22), adoption was negatively correlated with the likelihood of flooding from landslides and the proximity to industrial zones. Furthermore, the aridity indices also showed a negative correlation with adoption, indicating that bad weather played a large role in farmers' decision making. Additionally, in terms of marketing issues, a one-unit increase in organic marketing issues would result in a roughly 19% decrease in the overall adoption of organic farming. When farmers faced severe pest problems, they refused to switch to organic farming practices. Nematodes and Xanthomonas wilt are two of the main diseases in Sub-Saharan

Africa (SSA), severely affecting plantain and banana yields and incurring severe financial losses (Gbashi et al., 2021). Furthermore, insect infestations of crops before harvest reduce crop quality, as well as crop quantity and market value. The single-stranded DNA pathogen known as the maize streak virus poses a significant threat to maize production (yield losses) in the southern African region. Fall Armyworm (FAW), an invasive insect pest originally from North and South America, has spread throughout Africa since 2016 and is now a major problem in maize harvests (FSIN, 2018). According to research by Uhunamure et al. (2021), sub-Saharan African soils are defined by low levels of organic matter, physical erosion, moisture stress, nutritional shortages and crusting. Poor land management practices have decreased agricultural production, which is one of the causes that accelerate these trends (Mensah-Bonsu, 2017).

Adopt or Die: The status-quo of Organic Farming in Africa

The insights from Van Elzakker et al. (2007) resonate with the current state of organic farming in Africa. Certification of organic production remains a significant hurdle for many farmers across the continent, as it often requires access to resources and infrastructure that may be unavailable in rural or economically disadvantaged areas (Schade et al., 2021). The lack of updated data in some regions further complicates the ability to track progress and make informed decisions about organic practices.

The approach of Africa to organic agriculture, driven largely by the need to combat soil degradation and erosion, highlights a pragmatic response to ecological challenges (FAO, 2019). Unlike regions where market demand for organic products drives adoption. In Africa, the primary motivation is sustainability and long-term soil health. This aligns with the broader context of agricultural resilience in a region where arable land faces the dual threats of climate change and unsustainable farming practices (Sapbamrer and Thammachai, 2021).

The "adopt or die" perspective underscores a harsh reality. As conventional farming methods deplete soil fertility and intensify erosion, the adoption of organic methods becomes less of a choice and more of a necessity for survival (Lindeman, 2021). African farmers are often forced to innovate and integrate traditional practices with modern organic techniques to preserve their livelihoods. The focus on building and maintaining soil fertility not only supports crop productivity, but also ensures ecosystem stability. Despite these efforts, challenges such as limited access to certification, markets, and supportive policies must be addressed to fully realize the potential of organic farming in Africa (Schade et al., 2021). Strengthening infrastructure, providing education, and creating incentives for organic certification can help bridge the gap between local practices and global market opportunities, making organic farming a viable path forward. In essence, organic farming in Africa embodies a struggle for survival and sustainability, making it a critical component of the agricultural future of the continent.

Literature by Parrot, Ssekyewa, Makunike and Muwago (2006) refutes the misconception that organic agriculture is merely a return to traditional or outdated farming methods. Instead, it emphasizes that organic farming involves dynamic and innovative approaches that combine the expertise of scientists, technicians, and farmers. This perspective is particularly relevant in the African context, where organic farming is both a necessity and an opportunity to address pressing challenges in agriculture.

The integration of scientific research and participatory interventions aligns with Africa's unique agricultural needs (Oborn and Sternberg, 2019). Many farmers in Africa face soil degradation, erosion, and resource scarcity, which require solutions that are not only sustainable, but also adaptable to local conditions (Ravisankar et al., 2017). Organic farming, through modern innovations and local knowledge, presents a viable path to rebuilding soil fertility and improving resilience to climate change (Seufert, Ramankutty and Mayerhofer, 2017).

The "adopt or die" reality remains unambiguous. Farmers who choose to adopt organic farming must face obstacles such as limited access to education, technology, and markets for organic produce. Without these resources, the shift to organic agriculture may be slow or even impossible for some (Barton, 2018). This reinforces the importance of government policy, subsidies, research institutions, and collaboration support systems to ensure that farmers can benefit from the full potential of organic practices.

Active involvement of scientists and technicians also highlights the role of capacity-building and knowledge transfer (Rosati et al., 2021). These efforts can help farmers access cutting-edge techniques, such as agroforestry, composting, and integrated pest management, while encouraging innovation tailored to local contexts. In essence, organic farming in Africa is neither passive nor regressive. It is a progressive movement that bridges tradition and innovation, demanding the active participation of all stakeholders. However, for this movement to thrive, barriers such as certification challenges, market access, and infrastructure gaps must be addressed.

Results and Discussion

It is very clear from the above literature that organic farming is very critical when it comes to human life. Although there are different discussions about the slow production of organic food, organic farming remains a fundamental source of healthy life for many in Africa. The obsession of mass production of food through the use of chemicals, fertilizers, and ultimately GMOs is a threat to both human health and life. As it may be, one does not really obliterate the use of GMOs; however, one should also be cautious on what they consume. As the adage says, "you are what you consume". The adage simply denotes that to determine the well-being of the people, it is fundamental to take into cognizance the food they consume. Both organic and GMO food have their own benefits and disadvantages for both people and the environment. For instance, it is perceived that when one consumes organic food, one becomes healthy in the sense that organic food is rich in nutrients such as iron and vitamin C. In contrast, GMO food poses a human threat in a sense that allergies may arise in some individuals and lead to reduced or tempers with the original nutrients. Therefore, some individuals are hesitant to eat such food.

Conclusion

The deviation from organic farming practises accelerates on the reliance of pesticides which have negative repercussions on human health. This may include exposure to cancer, neurological disorders and other associated illnesses that threatens human life and sustainability thereof. However, this decimation of organic farming undermines food security, biodiversity and most importantly soil health. Its decline (organic farming) also challenges the Sustainable Development Goals (SDG 15: Life on Land), weakens the rural livelihoods and increases the consumption of chemical foods. Thus, it is indicated on the literature of this paper that Africa ought to go back to genesis (organic farming) to resuscitate soil health and ensure the sustainability of organic farming.

The conclusions are made based on the reviewed literature which avoided internal biasness. Therefore, drawing from a wide range of scholarly sources on organic farming and huma health helped to reduce subjectivity in the analysis of data and selective citation wherein supporting a preconceived arguments are included (Bryman, 2016). Equally, it was also important to include literature that contradicted the purpose of the paper or central argument of the paper to ensure a balanced argument and a critical discussion. Therefore, argument were presented objectively and clearly distinguished from personal opinions to ensure the principle of academic integrity (Creswell, 2014).

The decimation of organic farming in Africa is far more that the agricultural dilemma, it is a concerning and a growing public health problem. Organic farming is a tradition and a culture rooted in many African countries which ultimately promotes biodiversity, soil regeneration and chemical free food that enhances the longevity of human life. The results highlight the pressing necessity for renewed dedication from policymakers, stakeholders, and farming communities to enhance and revitalize organic agriculture throughout the continent. This encompasses funding education, offering rewards for organic methods, and enhancing regulatory systems that support sustainable agriculture. Safeguarding and advancing organic farming is not just an agricultural issue but also a vital public health matter. In the end, protecting organic farming in Africa is crucial for ensuring healthier communities, conserving the environment, and reaching sustainable development objectives. Neglecting its deterioration could have extensive repercussions that go beyond agriculture, impacting the welfare of both current and future generations. Therefore, the paper recommends the following that:

- ✓ The governments should encourage and increase the investments for organic farming
- ✓ Public health campaigns in relation the consumption of modified food and organic food should be promoted.
- ✓ The communities should encourage soil conservation and reforestation and reduce the use of pesticides.
- ✓ Organic farmers should be subsidized.

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Mohale Ernest Selelo holds a position as a Lecturer in the Department of Development Planning and Management at the University of Limpopo in South Africa. Mr Selelo is presently pursuing a Doctoral Degree (Doctor of Administration in Planning and Management) at the University of Limpopo. In 2017, he acted as a mentor at the School of Economics and Management at the University of Limpopo. He is a committed and emerging young researcher in the realm of development planning and management and public administration. Therefore, he has authored numerous articles in reputable journals and conference papers approved by DHET. His writings primarily centre on development studies, politics, education and public administration.

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