

## The Synergy of Food Sovereignty and the Politics of Malnutrition in Tanzania: What Works, Why and How?

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**Abstract:** Recent data from Tanzania's National Bureau of Statistics show the alarming extent of malnutrition: 35% of under-five children classified as stunted and 15% as underweight, demanding urgent intervention. This paper investigates the synergy between food sovereignty and politics of malnutrition in Tanzania, examining mechanisms, effectiveness, and strategies. It asserts that the interplay between food sovereignty and politics of malnutrition drives socio-economic progress and food security. Using a case study approach, the paper evaluates scalable food sovereignty projects in Tanzania. Interviews with stakeholders, including officials, non-governmental organizations (NGOs), and experts, offered insights into the complex relationship. The paper explores "food sovereignty" theory alignment with case studies (the What), rationale for realizing the right-to-food in Tanzania (the Why), and operationalizing policies amid the "politics of malnutrition" (the How). The paper draws on political ecology theory by Bryant and Bailey to explore food sovereignty-malnutrition synergy. Findings reveal that successful food sovereignty projects enhance food security and reduce child malnutrition. Factors include agroecological practices, traditional food systems, women and youth engagement, and community resource mobilization, empowering communities and prioritizing nutrition. Food sovereignty proves transformative in Tanzania and similar contexts, yet structural/political changes are vital to challenging industrial agriculture and global markets. In general, the success of food sovereignty projects in addressing malnutrition in Tanzania illustrates the potential of food sovereignty as a transformative approach to addressing food insecurity and malnutrition. However, achieving food sovereignty requires challenging the dominance of industrial agriculture and global food markets.

### Keywords:

1. Agriculture
2. Food sovereignty
3. Malnutrition
4. Policy reforms
5. Structural transformation
6. Tanzania

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## 1. Introduction

Holt-Giménez and Altieri (2012) define food sovereignty as the right of people to access healthy and culturally appropriate food produced sustainably, while Patel (2009) underscores its significance as a human right. Globally, empirical studies (La Via Campesina, 2003; Rosset, 2006; Holt-Giménez, 2011; Bliss et al., 2018) highlight the role of food sovereignty in addressing malnutrition, particularly in developing countries.

The research establishes that political factors play a pivotal role in malnutrition, including power concentration in the food system and globalization (Holt-Giménez, 2011). Food sovereignty emerges as a potential solution by promoting local food systems and empowering small-scale farmers. The emphasis is placed on the potential for alignment between the food sovereignty and nutrition outcomes (Clapp & Fuchs, 2018) and a dialogue-based approach is proposed for convergence (Bliss et al., 2018). Case studies from different countries including Malawi and Brazil (Hélène et al., 2019) illustrate food sovereignty's potential to enhance nutrition outcomes.

However, the power dynamics within communities and the broader political landscape impact the effectiveness of food sovereignty initiatives (Bliss et al., 2018; Popkin, 2014). Cultural factors are also intertwined with the politics of malnutrition (Loopstra & Tarasuk, 2012; FAO, 2013). Addressing scalability and policy barriers (Rosset, 2013; Alkon & Agyeman, 2011) are crucial for successful implementation.

The politics of malnutrition in Tanzania encompasses various issues, such as poverty, limited access to healthcare and education, and insufficient progress in right-to-food policies (UNICEF, 2019). This paper, therefore, examined the theoretical concept of food sovereignty, its alignment with the right-to-food in Tanzania, and practical implications for addressing malnutrition within a political, social, and cultural context.

## 2. Food Sovereignty and Politics of Malnutrition in Tanzania

The challenge of malnutrition in Tanzania is a complex interplay of political, socio-cultural, economic, and environmental factors (UNICEF, 2021). Despite efforts to combat this issue through right-to-food policies, alternative approaches to food security and nutrition are essential. This synthesis of Tanzanian literature examines the potential synergy between food sovereignty and the politics of malnutrition within this context.

At the heart of this discussion lies the theoretical concept of food sovereignty, advocating for community control over food systems (Wittman et al., 2010). This encompasses the right to culturally appropriate nourishment, local decision-making, and sustainable agriculture. In Tanzania, food sovereignty emerges as a transformative strategy against food insecurity and malnutrition (Magomba & Mdemu, 2019; Moyo et al., 2020). Pioneering studies underline the connection between food sovereignty and the right-to-food policy in Tanzania (Mbunda, 2016; Ndulo et al., 2020). Mbunda (2016) builds upon Sam Moyo's agrarian research, arguing for food sovereignty's role in enhancing self-sufficiency. Ndulo et al. (2020) concur, asserting that food sovereignty provides a framework to realize the right-to-food, necessitating structural shifts to challenge industrial agriculture and enhance food security.

Tanzania's food security challenges, particularly in rural areas, necessitate effective initiatives (Nziku et al., 2018). Programs like the Agricultural Sector Development Program and the National Food Reserve Agency aim to enhance agricultural productivity (Mengi & Kusiluka, 2017). However, these efforts encounter obstacles like funding shortages, infrastructure gaps, and climate-induced uncertainties.

Food sovereignty in Tanzania faces hurdles including land expropriation, urbanization, and corporate dominance (Lukumbuzya & Kiyombo, 2019). Land acquisitions for commercial purposes displace smallholders, impacting livelihoods and food access (Lukumbuzya & Kiyombo, 2019). Urban expansion further reduces arable land for food production. Corporate dominance marginalizes smallholders in the market (Lupala et al., 2021). Community-based initiatives, such as farmer cooperatives and agroecology, offer transformative potential (Lupala et al., 2021). As such, examining the politics of malnutrition, Pawlos (2018) defines it as encompassing political, economic, and socio-cultural factors. Tanzania's childhood malnutrition prompts policies like the National Multisectoral Nutrition Action Plan and the Scaling Up Nutrition Movement (Kubaha et al., 2019). These initiatives grapple with challenges like funding, health system weaknesses, and limited community engagement.

Addressing food sovereignty and the politics of malnutrition in Tanzania necessitates a comprehensive interdisciplinary approach. Community engagement, small-scale farming, and local food systems are crucial for food justice and sovereignty. Investment in infrastructure, technology, and sustainable agriculture advances food security. Confronting root causes, strengthening health systems, and community engagement are pivotal in shaping the politics of malnutrition. Moreover, the political ecology theory, as outlined by Bryant and Bailey (1997), offers a lens for understanding the intricate interplay between ecological and political dynamics in the context of food sovereignty and malnutrition. This theory emphasizes how political-economic structures and power relations shape resource access, distribution, and environmental outcomes. Through integrating the political ecology perspective, we gain deeper insights into the complex web of factors influencing food systems, resource allocation, and their impact on malnutrition in Tanzania. The interconnections between political power, ecological processes, and human well-being become evident through this theoretical framework, providing a holistic understanding of the dynamics at play.

### 3. Study Sites and Research Methods

In this study, an exploratory multiple-case design was employed to investigate the intricate relationship between food sovereignty and the politics of malnutrition in Tanzania. The study selected a diverse range of seven case studies to ensure a rich and comprehensive understanding of the research topic. These cases were specifically chosen for their potential to provide in-depth insights into the dynamics of food sovereignty and malnutrition in Tanzania. The selected cases are:

- **MVIWATA (*Mtandao wa Vikundi Vya Wakulima Tanzania*)**. This network of farmer groups in Tanzania played a significant role in advocating for farmers' rights and sustainable agricultural practices, aiming to enhance food sovereignty and nutrition outcomes.
- **Community-led Nutrition Intervention Program in Mwanza Region**. This case focused on a localized nutrition intervention program led by the community in the Mwanza Region. It aimed to improve access to nutritious food and enhance food sovereignty at the local level.
- **Women's Land Rights and Access to Food in Kilimanjaro Region**. This case explored how women's land rights and access to resources in the Kilimanjaro Region influenced their ability to contribute to food sovereignty and address malnutrition.
- **Kilimo Kwanza (Agriculture First)**. This government-led initiative aimed to promote agricultural development and enhance food security in Tanzania. The case study examined its impact on food sovereignty and nutrition outcomes.

- Community Health Workers in Arusha Region. This case delved into the role of community health workers in promoting nutrition and food sovereignty at the grassroots level through education, awareness, and local interventions.
- Community-Based Seed Systems in Ruvuma Region. This case study investigated community-based efforts to preserve and promote traditional seed systems, contributing to food sovereignty and nutritional diversity.
- Sustainable Agriculture Tanzania in Morogoro Region: This organization's sustainable agriculture practices were examined for their potential to empower communities, enhance food sovereignty, and address malnutrition.

The choice of a multiple-case design offered several advantages, such as robust and reliable evidence, a deeper understanding of the research phenomenon, and the exploration of theoretical evolution and research questions. By analyzing these diverse cases, the researchers were able to comprehend how contextual factors, including political, economic, and socio-cultural influences, shaped the outcomes related to food sovereignty and malnutrition. However, it's important to acknowledge that this design incurred costs in terms of time and finances, as noted by Gustafsson (2017).

Regarding the data collection methods, this study utilized qualitative approaches such as case studies, focus group discussions, and key informant interviews. Moreover, the study reviewed grey literature, particularly program/project reports. By employing various qualitative methods, the data triangulation was achieved, and the perspectives of multiple stakeholders, including small-scale farmers, policymakers, local communities, and other relevant parties, were captured on issues related to food sovereignty and malnutrition in Tanzania. The selected case studies provided in-depth information about specific initiatives and programs that have effectively promoted food sovereignty and improved nutrition outcomes. Focus group discussions and key informant interviews with government officials, civil society organizations, community leaders, and experts were conducted to identify the barriers and challenges faced by communities in controlling their food systems and addressing malnutrition. Overall, the use of multiple methods in data collection provided a comprehensive understanding of the subject matter.

Furthermore, the research adopted a participatory action research (PAR) approach to involve communities and stakeholders in the research process. PAR is a collaborative and iterative process that includes problem identification, data collection, analysis, and action with the aim of empowering communities and promoting social change. Communities were involved in identifying their needs and priorities, developing and implementing interventions, and evaluating the effectiveness of those interventions.

The study utilized a thematic analysis approach for data analysis, which followed the steps outlined by Braun and Clarke (2006). The process of data analysis involved becoming familiar with the data, coding by labeling sentences and paragraphs, and combining codes to generate themes. A deductive or top-down approach was used in generating the themes, meaning that the identification of themes was driven by the researcher's theoretical interest (theory-led thematic analysis). However, the researchers also ensured that this was done in a way that allowed for the emergence of new insights that might not be explained by the guiding theoretical framework.

After generating the themes, a thematic matrix was utilized to describe the relationships between food sovereignty and malnutrition. The thematic matrix helped organize the data into a table, which was used to identify the different themes and the relationships between them. The matrix also aided in identifying patterns within the data, making it easier to analyze the

findings and draw conclusions. Overall, the thematic analysis approach provided a rigorous and systematic method for analyzing the data collected through various qualitative methods.

#### **4. Experiences and Perspectives of Stakeholders on Food Sovereignty and Malnutrition in Tanzania**

This paper delves into the experiences and perspectives of various stakeholders regarding the intertwined issues of food sovereignty and malnutrition in Tanzania. It sheds light on the challenges faced by small-scale farmers and communities in accessing land, a critical resource for food production. As articulated by a small-scale farmer from Kilimanjaro in 2023 below, limited access to land, government and commercial ownership of prime land and lack of control over land hinder their ability to produce sufficient food for their families and local communities.

*“We have very limited access to land. The government and big commercial farmers own most of the good land, and they don’t want to give it to us. We can’t invest in our own land, and we don’t have control over it. This makes it very difficult for us to produce enough food for our families and communities”*  
(Small-scale farmer from Women’s Land Rights and Access to Food in Kilimanjaro Region, 2023).

The statement by the small-scale farmer from Kilimanjaro underscores a critical concern within the broader context of food sovereignty and malnutrition in Tanzania. Land access and ownership are foundational elements of food sovereignty, a concept emphasizing the right of communities to control their own food systems. The challenges faced by small-scale farmers in accessing land directly impact their ability to produce nutritious and culturally appropriate food for themselves and their communities.

The concentration of land ownership among government entities and large commercial farmers exacerbates inequality and restricts the ability of small-scale farmers to cultivate and manage their own food production. This structural imbalance perpetuates a cycle of limited food access, contributing to malnutrition and other related health issues.

Furthermore, the lack of control over land undermines the autonomy of small-scale farmers, making it difficult for them to make long-term investments in sustainable agricultural practices. This, in turn, hampers efforts to enhance food security and nutrition at the local level. The experiences shared by the small-scale farmer in Kilimanjaro resonate with broader discussions on land access and food sovereignty in Tanzania. According to Mngumi et al. (2020), land concentration and limited access have led to unequal distribution of resources, which directly impacts food sovereignty. The study by Nchimbi et al. (2019) highlights how unequal land distribution and lack of tenure security among small-scale farmers hinder agricultural productivity and exacerbate malnutrition.

In a similar vein, the statement aligns with the findings of Kabeer and Mahmud (2009), who emphasize the significance of asset ownership, including land, in empowering marginalized communities to achieve food security and nutrition. Their research highlights that without secure access to resources such as land, communities are unable to break free from the cycle of poverty and food insecurity. Furthermore, the issues raised by the small-scale farmer reflect the broader policy context in Tanzania. Kilahama and Kilasara (2015) argue that policy frameworks promoting large-scale investments in agriculture often sideline the interests of small-scale farmers, leading to land dispossession and reduced food sovereignty. The stakeholder’s perspective encapsulates the challenges faced by small-scale farmers in realizing their right to

food sovereignty and underscores the urgent need for equitable land distribution and supportive policies to address malnutrition and enhance sustainable food systems in Tanzania. Table 1 below distills discussions on views of stakeholders from participatory action research (PAR) with stakeholders that offer a comprehensive overview of the distinct aspects affecting small-scale farmers, government policies, and commercial farmers drawing on political ecology theory. Table 1 shows that small-scale farmers encounter limited access to land, which curtails their ability to invest in agricultural production and exercise control. In contrast, government policies exhibit a dominant control over land ownership, while commercial farmers benefit from privileged access. This stark disparity aligns with the concerns raised by small-scale farmers in Kilimanjaro, emphasizing the challenge of land ownership and its impact on food sovereignty.

Table 1. Views of Stakeholders on Power Relations on Different Aspects

Aspect	Small-scale Farmers	Government Policies	Commercial Farmers
Land Ownership	<i>Limited access</i>	<i>Dominant control</i>	<i>Privileged access</i>
Food Production	<i>Insufficient</i>	<i>Mixed outcomes</i>	<i>High production</i>
Nutritional Status	<i>Poor</i>	<i>Varied</i>	<i>Generally good</i>
Community Impact	<i>Limited resources</i>	<i>Government impact</i>	<i>Economic benefits</i>
Access to Resources	<i>Inadequate</i>	<i>Varied</i>	<i>Abundant resources</i>
Household Food Security	<i>Insecure</i>	<i>Mixed results</i>	<i>Generally secure</i>
Empowerment and Autonomy	<i>Limited</i>	<i>Controlled</i>	<i>High autonomy</i>

Source: Survey 2023

The data reveals that, small-scale farmers struggle with insufficient food production, resulting in poor nutritional outcomes. Government policies, on the other hand, yield mixed results in terms of food production and nutritional impact. Commercial farmers, empowered by their privileged access to resources, achieve high levels of production and maintain generally good nutritional statuses. This discrepancy highlights the role of resource availability and access in influencing food production and nutritional well-being.

Small-scale farmers and their communities contend with limited resources, leading to challenges in ensuring adequate food availability. Government policies have a considerable impact on these communities, while commercial farmers reap economic benefits from their abundant resources and opportunities. This distinction underscores the far-reaching consequences of resource disparities on community well-being.

The data underscores that small-scale farmers experience low household food security due to their constrained access to resources and limited autonomy. Government policies exhibit mixed results in ensuring household food security, whereas commercial farmers, with their high autonomy and abundant resources, tend to enjoy generally secure food access. This variation emphasizes the multifaceted nature of food security and its intricate ties to resource control and autonomy.

The findings presented in this table align with broader literature on food sovereignty and malnutrition in Tanzania. Research by Mngumi et al. (2020) highlights the challenges faced by small-scale farmers in accessing land and resources, contributing to insufficient food production and poor nutritional outcomes. Furthermore, Kilahama & Kilasara (2015) discusses the influence of government policies on food production and community impact, echoing the mixed outcomes observed in this study. In contrast, studies by Kabeer & Mahmud (2009) emphasize

the importance of empowering small-scale farmers and communities to enhance autonomy and food security, aligning with the disparities identified in this analysis.

Additionally, Table 2 below presents a comprehensive overview of field data sets pertaining to the experiences and perspectives of stakeholders on food sovereignty and malnutrition in Tanzania, in line with the concerns raised by the community members and PAR stakeholders.

Table 2. Views of Stakeholders on Food Sovereignty and Malnutrition in Tanzania

<b>Aspect</b>	<b>Small-scale Farmers</b>	<b>Government Policies</b>	<b>Commercial Farmers</b>
Access to Traditional Practices	<i>High involvement</i>	<i>Moderate support</i>	<i>Neglected</i>
Local Food Systems	<i>Strong reliance</i>	<i>Partial integration</i>	<i>Neglected</i>
Agriculture Focus	<i>Diverse crops</i> <i>Limited</i>	<i>Mixed priorities</i>	<i>Cash crops for export</i>
Food Sovereignty Promotion	<i>empowerment</i>	<i>Moderate efforts</i>	<i>Limited emphasis</i>
Malnutrition Prevalence	<i>High incidence</i>	<i>Varied outcomes</i>	<i>Lower incidence</i>

Source: Survey 2023

The small-scale farmers in Table 2 are heavily involved in traditional farming practices and rely on local food systems for sustenance. Government policies show moderate support for these practices, but commercial agriculture tends to neglect them. This neglect has led to a disconnect between traditional methods and modern farming approaches, impacting food sovereignty.

The small-scale farmers further engage in diverse crop cultivation, contributing to local food diversity. Government policies exhibit mixed priorities in balancing local and commercial needs. However, commercial agriculture, driven by export demands, emphasizes cash crops over local food production. This trend challenges the promotion of food sovereignty and negatively affects the nutritional diversity available to communities.

Likewise, the data suggests a high incidence of malnutrition among small-scale farmers, possibly due to limited access to resources and diverse foods. Government policies yield varied outcomes, while commercial farmers experience lower malnutrition rates, possibly due to their higher production capacities and income levels.

The findings underline the dominance of commercial agriculture in Tanzania and its effects on traditional farming practices and local food systems. This aligns with the neglect of traditional practices and local food systems observed by Nchimbi et al. (2019). Furthermore, Mngumi et al. (2020) underscore the influence of international trade policies and multinational corporations on local food systems. This is consistent with the shift towards cash crop production for export seen among commercial farmers, contributing to food insecurity and malnutrition, as indicated by the high malnutrition prevalence among small-scale farmers. Therefore, the field statistical data sets presented in the Table 2, along with the insights provided by the policymaker, shed light on the challenges faced by small-scale farmers, government policies, and commercial agriculture in promoting food sovereignty and combating malnutrition in Tanzania. The findings reinforce the need for policy interventions that prioritize local food systems, empower small-scale farmers, and address the influence of global market forces on achieving sustainable food security and nutrition outcomes.

## 5. Case Studies of Successful Food Sovereignty Initiatives and Programs in Tanzania

The success of food sovereignty initiatives and programs in Tanzania was determined by a combination of factors that contribute to their effectiveness, impact, and sustainability. The following are the criteria used to identify successful case studies.

- **Community Engagement and Empowerment.** Successful initiatives often prioritize active participation and engagement of local communities and stakeholders (Altieri & Toledo, 2011). Empowering communities to make decisions about their food systems fosters ownership and sustainable practices (Wittman, 2011).
- **Agroecological Approaches.** Adopting agroecological practices, such as diversified cropping systems and reduced chemical inputs, is a key factor in successful food sovereignty initiatives (De Schutter, 2010).
- **Access to Resources.** Ensuring access to essential resources like land, water, and seeds is critical (Rosset et al., 2011). Securing land tenure rights for small-scale farmers supports their ability to practice agroecology (La Via Campesina, 2003).
- **Local Knowledge and Traditions.** Integrating local knowledge and traditional practices in agricultural systems contributes to their success (Scoones, 2009). Incorporating indigenous practices can enhance food security and ecosystem resilience (Mekuria & Aynekulu, 2018).
- **Gender Equity.** Addressing gender disparities and promoting women's involvement in decision-making positively influences the outcomes of food sovereignty initiatives (Doss, 2002; FAO, 2011).
- **Capacity Building.** Providing training and capacity-building programs to farmers enhances their skills and knowledge (Gliessman, 2014). Farmer-to-farmer knowledge sharing also contributes to successful outcomes (Vandermeer et al., 2010).
- **Social Networks and Alliances.** Collaborative networks and alliances among farmers, NGOs, research institutions, and other stakeholders amplify the impact of initiatives (Altieri, 2004).
- **Adaptation to Local Contexts.** Tailoring initiatives to a region's specific ecological, cultural, and socio-economic context contributes to their success (Vandermeer et al., 2010).

These determinants interact and contribute to the overall success of food sovereignty initiatives and programs, fostering resilience, sustainable food production, and improved livelihoods for small-scale farmers. Therefore, the study adopted PAR as an approach that involves community members and stakeholders in the research process to address issues that affect their lives. PAR was used in the context of food sovereignty initiatives and programs in Tanzania to ensure that communities and stakeholders are involved in decision-making and planning processes.

Based on the criteria, four out of seven case studies met the standards of food sovereignty initiatives and programs in Tanzania. Through PAR community members and stakeholders were able to share their knowledge, experiences, and perspectives on the issues that affect their food security and sovereignty for the successful initiatives as indicated below.

The case study of MVIWATA (*Mtandao wa Vikundi Vya Wakulima Tanzania*), or the Tanzania Farmers' Network, provides valuable insights into successful food sovereignty initiatives and programs in Tanzania, particularly through the lens of PAR principles.

MVIWATA is a grassroots movement dedicated to advocating for the rights of small-scale farmers, aiming to ensure that they have control over sustainable production systems. Aligning with the concept of food sovereignty, MVIWATA emphasizes local community control over food systems and resources for producing culturally appropriate and healthy food.



MVIWATA's establishment of successful farmers' markets is a prime example of community-led initiative. These markets provide a direct platform for small-scale farmers to sell their produce to consumers, eliminating intermediaries and ensuring fair income distribution. This approach resonates with PAR principles, which emphasize active involvement and decision-making by the local community (Reason & Bradbury, 2008). Similarly, MVIWATA's advocacy efforts align with PAR's participatory nature. The movement engages with government officials to promote policies supporting small-scale farmers and organic farming practices. This collaboration signifies the participatory dimension of PAR, where community voices influence policy changes and development (Reason & Bradbury, 2008).

MVIWATA's focus on sustainable agricultural practices, such as organic farming, mirrors the PAR principle of action and reflection. Through hands-on engagement, small-scale farmers learn and adapt sustainable techniques. This iterative process aligns with PAR's cyclical nature of planning, action, observation, and reflection (Reason & Bradbury, 2008). Furthermore, MVIWATA's case study demonstrates alignment with several core PAR principles, as follows. Participation – MVIWATA actively involves small-scale farmers in decision-making processes, reflecting the foundational PAR principle (Reason & Bradbury, 2008). Empowerment – by advocating for farmers' rights and facilitating cooperative initiatives, MVIWATA empowers farmers to take control of their livelihoods and food systems, in line with PAR's emphasis on empowerment (Reason & Bradbury, 2008). Local Knowledge – MVIWATA's promotion of sustainable agricultural practices incorporates local knowledge and traditions, respecting the PAR principle of valuing local expertise (Reason & Bradbury, 2008). Action and Reflection – the establishment of farmers' markets and collaboration with government officials exemplify the PAR cycle of taking action, reflecting on outcomes, and refining strategies (Reason & Bradbury, 2008). The case study of the community-led nutrition intervention program in the Mwanza Region of Tanzania offers valuable insights into successful food sovereignty initiatives that address malnutrition, aligning with the PAR principles. The program's community-led approach is a fundamental principle of PAR, reflecting active involvement and decision-making by local communities (Reason & Bradbury, 2008). Local communities were engaged in the program's development and implementation, ensuring cultural appropriateness and sustainability. Likewise, the provision of nutrition education aligns with PAR's emphasis on knowledge sharing and awareness-raising. Similar to PAR's reflection phase, where participants analyze and interpret information (Reason & Bradbury, 2008), the program aimed to enhance understanding of balanced diets and nutritional value to combat malnutrition.

The community-led nutrition intervention program in the Mwanza Region demonstrates alignment with several core PAR principles. Participation – the program's community-led approach exemplifies the essence of participation, involving local communities in decision-making, design, and implementation (Reason & Bradbury, 2008). Empowerment – the program empowers community members through hands-on involvement in kitchen gardens and nutrition education resonates with PAR's empowerment principle, fostering active engagement and learning (Reason & Bradbury, 2008). Local Knowledge – emphasizing traditional foods, the program preserves local knowledge and food cultures, aligning with PAR's respect for local expertise and practices (Reason & Bradbury, 2008). Action and Reflection – the establishment of kitchen gardens and nutritional education embodies the PAR cycle of taking action, reflecting on outcomes, and refining strategies for continuous improvement (Reason & Bradbury, 2008). The case study of the community-led initiative focusing on women's land rights and access to food in the Kilimanjaro Region of Tanzania serves as a compelling exemplification of the successful application of PAR principles, effectively contributing to the promotion of gender

equality, women's empowerment, and the advancement of food sovereignty. This initiative's findings reveal crucial aspects.

First, the initiative's emphasis on granting women access to land aligns harmoniously with the PAR empowerment principle, allowing participants to seize control over their livelihoods and agency within their communities (Reason & Bradbury, 2008). This approach effectively disrupts entrenched gender norms by granting women the opportunity to own and cultivate land, thereby catalyzing gender equality. Second, the participatory nature of the initiative is evident through the collaborative process of identifying and allocating land to women. This mirrors the essence of PAR, fostering active community engagement in decision-making, akin to the participatory principle of involving stakeholders at all stages (Reason & Bradbury, 2008). Moreover, the program's commitment to training and promoting sustainable farming practices resonates with the PAR action and reflection cycle. This cycle parallels the practical learning process within the initiative, where women acquire skills, apply them, reflect on outcomes, and adapt strategies for continuous improvement (Reason & Bradbury, 2008).

The initiative aptly exemplifies the participatory approach, showcasing the active participation of women and the community throughout decision-making and implementation, thus reflecting the participatory essence that PAR champions (Reason & Bradbury, 2008). The empowerment of women facilitated by land access and training, is in direct harmony with the PAR empowerment principle, empowering women to take charge of their food production and income generation, mirroring PAR's underlying philosophy (Gliessman, 2014). The initiative's utilization of local knowledge and resources to address challenges resonates with PAR's principle of valuing community members' expertise, further enhancing the initiative's effectiveness (Mekuria & Aynekulu, 2018). Additionally, the initiative's multifaceted approach, encompassing land allocation, training, and cooperative establishment, closely follows the PAR cycle of action, reflection, and adaptation, reflecting a commitment to ongoing enhancement (Reason & Bradbury, 2008).

The Community-Based Seed Systems (CBSS) initiative is a key component of the food sovereignty movement in Tanzania. Launched in 1999, the initiative promotes farmer-led seed production and conservation, and aims to increase farmers' control over their seed systems. The CBSS program provides farmers with training in seed selection, conservation, and production techniques, as well as access to markets for their seed. By promoting the use of local seed varieties that are better adapted to local environmental conditions, the initiative helps increase crop yields and improves food security in rural communities.

Moreover, the CBSS initiative is aligned with the principles of food sovereignty, which emphasizes the importance of local communities having control over their food production and distribution systems. Through the initiative, farmers are able to maintain their traditional knowledge and practices around seed production and conservation, and are empowered to make decisions about their seed systems.

The CBSS initiative has been successful in promoting farmer-led seed production and conservation in Tanzania. By providing farmers with access to training and markets, the initiative has helped increase farmers' incomes and improved their livelihoods. Additionally, the use of local seed varieties has helped maintain biodiversity and preserve traditional knowledge around seed production and conservation.

Therefore, the CBSS initiative is an important component of the food sovereignty movement in Tanzania. By promoting farmer-led seed production and conservation, the initiative helps empower local communities and increase their control over their food systems, while also improving food security and preserving traditional knowledge and practices.

The Sustainable Agriculture Tanzania (SAT) initiative emerges as a pivotal catalyst within the food sovereignty movement in Tanzania, serving as a prime example of the effective application of PAR principles to foster sustainable agriculture, amplify the empowerment of smallholder farmers, and advance the cause of food sovereignty. The initiative's outcomes unveil noteworthy aspects.

Foremost, the SAT initiative's dedication to training farmers in agro-ecology and sustainable farming practices seamlessly aligns with the PAR principle of action and reflection. By engaging farmers in hands-on learning and practical implementation, SAT embodies the iterative PAR process, where actions and reflections coalesce for perpetual enhancement (Reason & Bradbury, 2008). Additionally, SAT's emphasis on empowering smallholder farmers to assume control over their food production and distribution systems resonates profoundly with the PAR empowerment principle. Akin to PAR's core tenet of participant agency and decision-making, the initiative gives participants the capability to steer their agricultural pursuits (Kilahama & Kilasara, 2015).

Moreover, the SAT initiative's coherence with food sovereignty principles mirrors the participatory essence of PAR. By enabling local communities to wield authority over their food systems, the initiative mirrors PAR's directive to encompass stakeholders across all stages of the process (Reason & Bradbury, 2008).

The SAT initiative conspicuously mirrors a range of essential PAR principles. Participation – the active engagement of smallholder farmers in agro-ecology training mirrors PAR's participatory core, underscoring the engagement of community members in hands-on endeavors and decision-making (Reason & Bradbury, 2008). Empowerment – equipping farmers with sustainable practices knowledge and tools aligns seamlessly with the PAR empowerment principle, nurturing the participants' influence over their agricultural endeavors (Nchimbi et al., 2019). Local Expertise and Practices – the emphasis on agro-ecology and traditional farming techniques adeptly encapsulates the PAR principle of valuing indigenous knowledge and expertise (Reason & Bradbury, 2008). Action and Reflection – the cyclical process of training and implementing sustainable farming techniques mirrors the PAR action and reflection cycle, where actions intertwine with reflection and evolution for sustained betterment (Reason & Bradbury, 2008).

Generally, the SAT initiative stands as a compelling testament to the realization of PAR principles within prosperous food sovereignty endeavors. Through inculcating sustainable practices, fostering empowerment, and empowering local control, the initiative augments not only food security and the economic viability of farmers but also preserves ancestral wisdom and safeguards the environment. This case study underscores the pivotal role of community-driven endeavors in nurturing sustainable agriculture, enhancing the agency of smallholder farmers, and concretizing the aspirations of food sovereignty.

These case studies demonstrate the importance of community-led initiatives, the recognition of women's rights, and government policy changes in promoting food security, sovereignty, and the reduction of malnutrition in Tanzania.

## **6. Summary of Lessons Learned from The Cases Presented**

The analyzed case studies offer valuable insights into the promotion of sustainable and community-driven food systems in Tanzania. The cases speak to the six principles of food sovereignty (focuses on food for people, values food providers, localises food systems, puts control locally, builds knowledge and skills, and works with nature). MVIWATA, a grassroots movement, advocates for the rights of small-scale farmers. Through the implementation of

successful farmers' markets, MVIWATA has improved consumers' access to healthy and nutritious food while sidestepping intermediaries and bolstering food security. Similarly, a community-led nutrition intervention program in the Mwanza Region addressed malnutrition by providing nutrition education and establishing school, health facility, and community center kitchen gardens. This program had a significant impact on improving the nutritional status of children and mothers in the area. Another community-led initiative, Women's Land Rights and Access to Food in the Kilimanjaro Region, aimed to provide land access, resources, and training and support for sustainable farming practices. The establishment of a women-led food cooperative further encouraged local food systems and supported women farmers' livelihoods. Finally, the government-led Kilimo Kwanza initiative endeavors to drive economic growth in Tanzania by investing in agriculture, financing small-scale farmers, and modernizing the sector.

## **7. Policy Change for Sustainable Food Production in Tanzania**

In Tanzania, food security is a critical issue that affects, especially those in rural areas, the livelihoods of many people who rely on agriculture for their survival (Kilasara & Nandonde, 2016). In response to this challenge, the Tanzanian government has implemented policy changes aimed at promoting sustainable food production and improving food security in the country (URT, 2016).

One of the key policy changes has been increased investments in agriculture (URT, 2018). The government has allocated more resources towards agriculture, including funding for research and development, infrastructure development, and farmer education and training (URT, 2016). These investments have helped improve agricultural productivity and support small-scale farmers, who are the backbone of the Tanzanian agriculture sector (Kilimo Trust, 2018).

Another policy change has been the promotion of sustainable farming practices (Kilasara & Kilasara, 2019). The government has encouraged farmers to adopt sustainable farming methods, such as conservation agriculture, which can help increase crop yields, improve soil health, and reduce the use of harmful chemicals (Nhemachena & Hassan, 2019). The government has also supported the establishment of farmer field schools, which provide training and education on sustainable farming practices (Mattee & Hella, 2018).

In addition, the government has established food reserves to ensure access to food during times of scarcity (URT, 2013). These reserves provide a buffer against food shortages and help stabilize food prices. The government has also implemented policies to promote local food production and reduce dependence on imported food (Mkumbwa & Lwelamira, 2017).

These policy changes have been successful in improving food security and promoting sustainable food production in Tanzania (World Bank, 2015). Investing in agriculture has helped increase agricultural productivity, while promoting sustainable farming practices has raised the quality and quantity of food produced (Thompson and Yu, 2019). The establishment of food reserves has helped ensure access to food during times of scarcity, while the promotion of local food production has helped support the livelihoods of small-scale farmers (Makala & Sieber, 2018).

In general, the policy changes implemented by Tanzania's government provide an encouraging example of how policy can support sustainable food production and improve food security. They highlight the importance of investing in agriculture, promoting sustainable farming practices, and supporting local food production toward achieving Sustainable Development Goals.

## 8. Interventions and Policies for the Synergy of Food Sovereignty and the Politics of Malnutrition

As defined in the previous section, food sovereignty is the right of communities to determine their own food and agricultural systems, and to produce and consume healthy and culturally appropriate food in a sustainable manner (Holt-Giménez & Altieri, 2012). However, in Tanzania, like in many other countries, malnutrition remains a major public health issue, with a significant proportion of the population experiencing food insecurity and undernutrition. To address this issue, interventions and policies are needed that promote the synergy of food sovereignty and the politics of malnutrition. A PAR approach was used to involve communities and stakeholders in the development of these interventions and policies. PAR was collaborative and democratic involving community members, researchers, and stakeholders in the research process. The approach aimed to empower communities and to promote social change through the creation of new knowledge and the development of solutions to social problems. Therefore, using a PAR approach, communities and stakeholders in Tanzania were involved in identifying the root causes of malnutrition and food insecurity, as well as in addressing interventions and policies to address these issues. Interventions and policies that highly preferred to promote the synergy of food sovereignty and the politics of malnutrition include:

### 8.1. Investment in agriculture

This was substantiated by one of the policymakers who stated:

*“The government needs to invest in modern agricultural techniques and infrastructure to increase food production. This will ensure food security, reduce reliance on food imports, and promote food sovereignty”* (Policymaker, Kilimanjaro, 2023).

This statement emphasizes the importance of government investment in modern agricultural techniques and infrastructure to increase food production in Tanzania. By investing in modern techniques and infrastructure, the government can help ensure food security, reduce reliance on food imports, and promote food sovereignty. These investments include improving irrigation systems, providing access to better seeds and fertilizers, and investing in research and development to improve crop yields and efficiency. By involving local communities in these efforts through a PAR approach, the government can ensure that interventions and policies are relevant and effective for addressing local needs and challenges.

### 8.2. Promoting sustainable agriculture practices

This was verified by one of the respondents in the community who stated:

*“The government needs to promote sustainable agriculture practices such as crop rotation, agroforestry, and conservation agriculture to improve soil health and enhance food production. These practices also help reduce the use of harmful chemicals that contribute to malnutrition”* (Small-scale farmers from Community-led Nutrition Intervention Program in Mwanza Region, 2023).

The statement highlights the importance of promoting sustainable agricultural practices to enhance food production and reduce malnutrition. It emphasizes the need for the government

to invest in promoting practices such as crop rotation, agroforestry, and conservation agriculture. These practices are known to improve soil health, increase crop yields, and reduce the use of harmful chemicals that can lead to malnutrition. By promoting sustainable agriculture practices, the government can support food sovereignty, reduce the dependence on food imports, and improve the nutritional status of its citizens.

### 8.3. Supporting small-scale farmers

During a focus group discussion (FGD), participants expressed the need for the government to support small-scale farmers in Tanzania. According to one participant:

*“The government should support small-scale farmers by providing them with access to credit, technical assistance, and market opportunities. This will enable them to produce more food and earn a decent income”* (Small-scale farmers from Sustainable Agriculture Tanzania (SAT) in Morogoro Region, 2023).

The FGD participants emphasized the importance of supporting small-scale farmers who make up the majority of Tanzania’s agricultural sector. Many of these farmers face significant challenges, such as limited access to credit, technical knowledge, and markets. Without adequate support, they struggle to produce enough food to meet their own needs, let alone contribute to national food security.

Participants highlighted the need for the government to provide small-scale farmers with access to credit and other forms of financial support, such as grants or subsidies. This would enable them to invest in their farms, purchase necessary inputs, and expand their production. Additionally, participants called for the government to provide technical assistance and training to farmers, particularly in sustainable farming practices such as crop rotation, agroforestry, and conservation agriculture. By adopting these practices, farmers can improve soil health, reduce their reliance on costly inputs such as fertilizers, and increase their yields over the long term.

Finally, participants emphasized the need for the government to support small-scale farmers by creating market opportunities for them. This could involve establishing local markets, connecting farmers with buyers, or providing support for value-added processing. By enabling small-scale farmers to sell their products at fair prices, the government can help them earn a decent income and contribute to national food security.

### 8.4. Food fortification

During one FGD one participant expressed:

*“The government needs to enforce mandatory food fortification to address micronutrient deficiencies. This can be achieved by adding essential vitamins and minerals to staple foods like maize flour, wheat flour, and cooking oil.”* (Small-scale farmer from Women’s Land Rights and Access to Food in Kilimanjaro Region, 2023).

The FGD participant suggests that the government should enforce mandatory food fortification to address micronutrient deficiencies in Tanzania. This could be achieved by adding essential vitamins and minerals to staple foods like maize flour, wheat flour, and cooking oil. The participant emphasizes that this approach would be an effective way of improving the nutritional status of the population, especially vulnerable groups such as pregnant women and

young children. Additionally, the participant calls on the government to ensure that the fortification process is monitored and regulated so that the added nutrients are at appropriate levels and cause no adverse health effects.

#### 8.5. Nutrition education

The government needs to provide nutrition education to communities, especially women, on the importance of a balanced diet and the benefits of breastfeeding. This will help reduce malnutrition rates and improve overall health outcomes. This was corroborated by one of the policymakers who stated:

*“We believe that the government should prioritize providing nutrition education to communities, especially women, on the importance of a balanced diet and the benefits of breastfeeding. This will not only help reduce malnutrition rates but also improve overall health outcomes in the country. It’s important to involve community health workers, local leaders, and other stakeholders in disseminating this information to ensure that it reaches everyone. Additionally, the government should also invest in the promotion of locally available nutritious foods to encourage the consumption of diverse and healthy diets” (Policymaker, Dar es Salaam, 2023).*

#### 8.6. Social protection programs

During FGD one participant expressed:

*“The government should implement and improve where necessary social protection programs such as cash transfers, food vouchers, and school feeding programs to ensure vulnerable populations have access to food” (Small-scale farmer, from MVIWATA Morogoro, 2023).*

This quotation emphasizes the need for social protection programs to ensure that vulnerable populations have access to food. These programs can include cash transfers, food vouchers, and school feeding programs.

#### 8.7. Strengthening food systems

The FGD quotation suggests that:

*“The government should strengthen food systems by improving food storage, transportation, and processing. This will help reduce food waste and ensure food is available all year round” (Small-scale farmer from Community-led Nutrition Intervention Program in Mwanza Region, 2023).*

This highlights the importance of addressing the various stages of the food system to ensure food security and sovereignty. By improving food storage facilities, such as warehouses and silos, the government can reduce food waste and prevent food loss due to spoilage. Improving transportation infrastructure, such as roads and bridges, can also help farmers reach markets more easily and reduce food waste. Moreover, investing in food processing technology can help extend the shelf life of perishable foods and increase their value, thereby providing opportunities for small-scale farmers to earn a better income. Overall, improving the food system is crucial to achieving food sovereignty and addressing malnutrition in Tanzania.

#### 8.8. Addressing the root causes of food insecurity

The government should address the root causes of food insecurity, such as poverty, by implementing poverty reduction strategies and creating employment opportunities. This was corroborated by one of the policy makers who stated:

*“The root causes of food insecurity, such as poverty, need to be addressed by the government through the implementation of poverty reduction strategies and the creation of employment opportunities. This will enable individuals and households to have the means to access food and improve their nutritional status.”* (Policymaker, Dar es Salaam, 2023).

#### 8.9. Collaborative partnerships

Collaborative partnerships among the government, civil society, and the private sector can help address food justice, security, and sovereignty issues. This can include promoting local food production, reducing food waste, and increasing access to markets. This was supported by one of the stakeholders who stated:

*“Collaborative partnerships between the government, civil society, and the private sector are crucial for addressing food justice, security, and sovereignty issues. Through these partnerships, we can promote local food production, reduce food waste, and increase access to markets. It’s important to work together to find innovative solutions to these complex issues and to ensure that everyone has access to nutritious, culturally appropriate, and sustainable food”* (NGO’s manager, Mwanza, 2023).

#### 8.10. Research and data collection

The government should invest in research and data collection to better understand the causes of malnutrition and to develop evidence-based policies and interventions to address them. This was verified by one of the policy makers who stated:

*“The government could invest in research and data collection to gain a better understanding of the underlying causes of malnutrition in Tanzania. By doing so, they can develop effective, evidence-based policies and interventions to address malnutrition and promote food sovereignty”* (Small-scale farmer from Community-led Nutrition Intervention Program in Mwanza Region, 2023).

The above interventions and policies can help promote food justice, security, sovereignty, and reduce malnutrition in Tanzania. However, these efforts need to be sustained over the long term to achieve meaningful and lasting impact.

### 9. Discussions on the Findings

The discussion on the synergy of food sovereignty and the politics of malnutrition in Tanzania highlights the importance of promoting sustainable food systems that are community-led and prioritize local food production. The case studies presented here demonstrate how grassroots movements, community-led interventions, and government policies can work together to promote food sovereignty and address malnutrition.



One of the key takeaways from the discussion is the importance of investing in agriculture to support small-scale farmers who are the backbone of Tanzania's agriculture sector. The government's allocation of more resources towards agriculture, including funding for research and development, infrastructure development, and farmer education and training, has helped improve agricultural productivity and support small-scale farmers.

Another key takeaway is the promotion of community-led sustainable farming practices, which can help increase crop yields, improve soil health, and reduce the use of harmful chemicals. The government's encouragement of farmers to adopt sustainable farming methods, such as conservation agriculture, and the establishment of farmer field schools to provide training and education on sustainable farming practices have been successful in improving food security and promoting sustainable food production in Tanzania.

The establishment of food reserves and the promotion of local food production are other policy changes that have been successful in improving food security in Tanzania. The government's efforts to reduce dependence on imported food and promote local food production have led to a reduction in food imports and increased availability of locally produced foods. This has contributed to improved food security and reduced vulnerability to external shocks.

In general, the findings highlight the importance of promoting food sovereignty and sustainable food systems to address malnutrition in Tanzania. This requires a multi-faceted approach that involves grassroots movements, community-led interventions, and government policies. Investments in agriculture, promotion of sustainable farming practices, establishment of food reserves, and promotion of local food production are all important components of this approach.

## **10. Conclusion**

Tanzania confronts formidable obstacles on its path towards achieving food sovereignty, particularly among rural populations heavily reliant on agriculture for sustenance. The government has undertaken a series of policy reforms aimed at bolstering sustainable food production and enhancing overall food security within the nation. These policy shifts encompass increased investments in agriculture, advocacy for sustainable farming methodologies, fostering localized food cultivation, and establishment of farmer field schools and strategic food reserves. The execution of these policies has yielded tangible enhancements in agricultural productivity, subsequently fortifying food security and augmenting the livelihoods of small-scale farmers. Moreover, community-led initiatives, such as those effectively pioneered by MVIWATA and the community-led nutrition intervention program in the Mwanza Region, have been instrumental in redressing malnutrition and cultivating sustainable, community-oriented food systems.

Undoubtedly, the harmonious interplay between food sovereignty and the multifaceted dynamics of malnutrition's political underpinnings within Tanzania constitutes a linchpin in advancing sustainable food systems and amplifying overall food security. The embrace of food sovereignty empowers communities to assert authority over their individual food systems, ensuring that their nourishment is healthful, nutritious, and culturally resonant. In tandem, the intricate politics surrounding malnutrition delve into the bedrock causes of this affliction, encompassing poverty, inequality, and insufficient access to critical resources such as sustenance, healthcare, and education. The amalgamation of these complementary approaches stands as a potent strategy to engage the intricate malnutrition challenges pervasive in Tanzania, all while championing sustainable and community-driven food systems.

Proven triumphs within Tanzania's landscape, such as the impactful endeavors of MVIWATA, the community-led nutrition intervention programs, and initiatives advocating women's land rights, eloquently underscore the potency of these paradigms. Simultaneously, the government's recalibrated policy landscape comprising augmented investments in agriculture, the propagation of sustainable farming techniques, the establishment of strategic food reservoirs, and unwavering support for localized food cultivation has efficaciously elevated food security and promoted sustainable agricultural output throughout the nation.

The surge in agricultural investment spearheaded by Tanzania's government has invariably spurred heightened productivity and fortified the foundations of small-scale farming. This newfound emphasis on sustainable farming methods has precipitated improvements in both the quality and quantity of produce yielded. The strategic deployment of food reserves and the spirited drive for localized food production have collectively underwritten accessibility to sustenance and buoyed the fortunes of small-scale farming communities. It is also imperative to acknowledge the instrumental role played by grassroots movements like MVIWATA, amplifying the advocacy for organic farming practices, safeguarding the rights of small-scale farmers, and broadening access to wholesome and nourishing fare for consumers.

Concurrently, the ascendancy of community-led nutrition intervention programs has unfurled commendable success in augmenting the nutritional well-being of children and mothers within the region. Equally meritorious is the inception of women-led food cooperatives, invigorating local food systems while simultaneously bolstering the livelihoods of female farmers. Collectively, these diverse avenues of progress demonstrate the remarkable strides made by Tanzania in its pursuit of sustainable food production and fortified food security.

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