

Review Article

Challenges and Opportunities of Livelihood Diversification in Ethiopia: A Review Article

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Abstract

Diversifying sources of income has been recognized as a crucial approach to alleviate poverty, mitigate food insecurity, and enhance the overall well-being of rural residents in Ethiopia. This review outlines the key challenges and opportunities associated with livelihood diversification in the country. The study identifies several primary constraints that hinder livelihood diversification, including inadequate infrastructure development, scarcity of arable land, limited access to credit services, gender disparities, and poor rural-urban linkages. However, it also highlights potential avenues for sustainable livelihoods through diversification, such as the promotion of sustainable land management practices, adoption of climate-resilient agricultural strategies, and the provision of training and capacity building programs. To facilitate successful livelihood diversification, the review emphasizes the urgency of investing in infrastructure development and ensuring access to credit services. Moreover, it underscores the importance of promoting gender equality to mitigate the challenges faced by women in diversifying their livelihoods. Encouraging sustainable land management practices, implementing climate-resilient agricultural strategies, and providing comprehensive training and capacity building programs are identified as critical measures to support diversification efforts in Ethiopia effectively. The review offers evidence-based policy recommendations to inform government agencies, non-governmental organizations (NGOs), and other stakeholders on effective strategies that can enhance livelihood diversification in the country, while also ensuring inclusivity and sustainability. The significance of livelihood diversification within Ethiopia's development agenda cannot be overstated, and it is imperative for stakeholders to act in addressing the identified challenges and capitalizing on the opportunities presented by diversification. By doing so, they can contribute to poverty reduction and sustainable development in the country. However, it is essential to note that further research is necessary to explore the efficacy of livelihood diversification strategies in different contexts and identify additional opportunities and challenges that may arise.

Keywords

Livelihood, Livelihood Diversification, Challenges and Opportunities

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1. Introduction

1.1. Background of the Study

Approximately two-thirds of the world's impoverished and food-insecure people are smallholder farmers in developing nations' rural areas [45]. Ethiopia and other developing nations are highly dependent on low-productivity small-scale agriculture and are susceptible to shocks linked to weather and production [41]. Ethiopia, a country with a population of over 126 million, is situated in the Horn of Africa and has a rich cultural heritage. Over 80% of the workforce is employed in agriculture, which has a long history of being the backbone of the nation's economy [20]. However, the nation has experienced several difficulties, including hunger, drought, and political unrest, which have caused poverty and food insecurity in a large number of rural areas [23, 46].

Livelihood diversification has been recognized as a tactic to lessen food insecurity, and poverty, and enhance the well-being of Ethiopia's rural populations [46]. The process through which rural households build a varied portfolio of activities and social support capacities in response to various problems, such as drought, is known as livelihood diversification. To deal with the unpredictable and sparse agricultural environment of Ethiopia, farm households engage in a variety of off-farm and non-farm livelihood activities [23]. The difficulty it presents could not be met or overcome without the adoption of context-based livelihood diversification measures, which would also increase livelihood security.

Livelihood diversification in Ethiopia faces several challenges, including a lack of awareness and training services, lack of finance, infrastructural problems, lack of opportunities in non-farm sectors, low levels of mass media exposure, communal resource administration systems, and lack of access to markets [16]. Furthermore, farm revenue alone cannot support Ethiopia's rapidly growing population due to the unstable and sparse agricultural context of its rural areas [23]. Therefore, context-based livelihood diversification methods must be implemented. Although the difficulties, diversifying one's source of income is essential for lowering food-insecurity, poverty, and enhancing the wellbeing of rural communities [24].

Livelihood diversification in Ethiopia presents several opportunities for rural households. Firstly, it can raise household income by offering non-farm revenue streams like daily labor, petty trading, and small businesses [19, 44]. Secondly, giving households access to a variety of food sources and lowering their dependency on a single crop or animal, it can also increase food security [24]. Thirdly, it can reduce households' vulnerability to shocks such as droughts, floods, and other natural disasters by providing alternative sources of income [24, 44]. Fourthly, raising household income, can enhance their access to amenities like clean water, healthcare, and education [44]. Lastly, it can increase social capital by providing households with opportunities to interact

with other households and communities, leading to the formation of social networks and the sharing of knowledge and resources [43]. Therefore, livelihood diversification presents several opportunities for rural households in Ethiopia, including increased income, improved food security, reduced vulnerability, improved access to services, and increased social capital.

There are several successful examples of livelihood diversification in Ethiopia. A study conducted in the Chewaka district of Ethiopia found that rural households adopted various livelihood diversification strategies, including crop production, livestock rearing, and non-farm activities such as petty trading, daily labor, and small businesses [46]. Another study conducted in the South Gondar zone, Amhara Regional State, Ethiopia found that rural households adopted both agricultural and non-agricultural livelihood diversification strategies, such as the production of multiple crops or high-value crops, the establishment of small businesses, and the selection of non-agricultural sources of income [24]. A study conducted in Kembata Tambaro Zone, Southern Ethiopia found that rural households adopted various livelihood diversification strategies, including crop production, livestock rearing, and non-farm activities such as petty trading, daily labor, and small businesses [42]. Additionally, a study conducted in Tigray, Northern Ethiopia found that rural youth adopted various livelihood diversification strategies, including migration, off-farm employment, and livestock rearing [40]. These studies show that rural households in Ethiopia adopt various livelihood diversification strategies, including crop production, livestock rearing, and non-farm activities such as petty trading, daily labor, and small businesses. These strategies have been successful in reducing poverty, and food insecurity, and improving the welfare of rural communities.

The topic of livelihood diversification in Ethiopia is crucial for reducing poverty, and food insecurity, and improving the welfare of rural communities. However, rural households in Ethiopia face several challenges, including a lack of awareness and training services, lack of finance, infrastructural problems, lack of opportunities in non-farm sectors, low levels of mass media exposure, communal resource administration systems, and lack of access to markets.

Despite the challenges, there are successful examples of livelihood diversification in Ethiopia. However, there is a gap in the literature on exploring the challenges and opportunities of livelihood diversification in Ethiopia. The review will draw on existing literature to provide insights into the challenges and opportunities of livelihood diversification in Ethiopia and to identify successful examples of livelihood diversification strategies that can be replicated in other areas.

Moreover, there were many studies conducted about the topic but they lacked consistency in livelihood diversification strategies, and there was no single study conducted at the country level. So, the review of this paper tried to compile

studies conducted in different parts of the country to show the real image of livelihood diversification and contribute knowledge on the challenges and opportunities of livelihood diversification in Ethiopia. The aims of the review were to: (1) The primary objective of this review is to identify and analyze the major challenges faced by individuals, communities, and policymakers in Ethiopia when implementing livelihood diversification strategies. (2) Another key objective is to explore and document the various opportunities for sustainable livelihoods through diversification in Ethiopia, and (3) to provide evidence-based policy recommendations and insights to inform government agencies, NGOs, and other stakeholders about effective strategies to enhance livelihood diversification in Ethiopia.

The result generated through review may be important for development practitioners, researchers, and policymakers. The result of the review paper may be helpful for development practitioners who work on the livelihood improvement of rural people by indicating in what issue they should intervene. For researchers, it may give insight into how they should research to fill the gap of different studies and to make community beneficiaries by generating relevant information through their investigation. Besides it may also be crucial for policymakers to formulate, ratify, and implement appropriate policy successfully based on the existing situation of rural livelihoods.

1.2. Methodology

These requirements were closely adhered to during the study process, and all parts of the review had to be transparently documented. This promise guarantees the validity and thoroughness of the review procedure [39].

1.2.1. Scope of the Review

This review examines the challenges and opportunities of livelihood diversification in Ethiopia, including socio-economic and environmental aspects. It covers agricultural and non-agricultural solutions, institutional and policy elements, and the potential for sustainable livelihoods through diversification. The review also highlights the difficulties and limitations associated with implementing diversification programs, from social injustices and economic limits to environmental concerns and policy deficiencies. This review aims to offer evidence-based insights to government agencies, NGOs, and other stakeholders on Ethiopia's economic development and social well-being. It examines the effects of diversification on poverty alleviation and sustainable development, identifying obstacles and potential opportunities for policies and initiatives to improve the livelihoods of Ethiopia's rural inhabitants.

1.2.2. Searching Method of the Review

We conducted a literature review by consulting three social science databases - Science Direct, Web of Science, and Re-

searchGate Collection. We used a haphazard Google search to find relevant terms and created a keyword matrix to use with the chosen databases. We used additional search phrases, such as "livelihood," "livelihoods," and "diversification," to find additional literature. We also searched references to see if any more studies might be relevant. We did routine Google Scholar searches to make sure that freshly published articles that fell within the review's criteria were included.

1.2.3. Screening

1000 articles were initially found, and they were examined to make sure they complied with the requirements for inclusion. If an article met both of the following criteria, it would be added to the final list of the review: (1) it addressed livelihood diversification generally and looked at the opportunities and challenges for diversification on the livelihoods of Ethiopian smallholders, and (2) its source was one of the articles written by Ethiopian scholars. The titles, abstracts, and keywords of the chosen research articles were studied in further detail, leading to the removal of irrelevant publications. After that, duplicate research articles were collected and screened out of the remaining articles. A total of 102 research publications were produced as a consequence. A further 56 papers were eliminated throughout the full-text reading screening procedure, leaving 46 articles in the selection list, which were included in this study for information extraction and reviewing.

1.3. Structure of the Literature Review

The literature review is structured coherently, addressing the various aspects of livelihood diversification in Ethiopia. It begins with an introduction, providing essential background information on the socio-economic context of the country and the significance of the study. The research objectives, including the identification and analysis of challenges, exploration of opportunities, and provision of evidence-based policy recommendations, are also outlined in the introduction. A conceptual framework section follows, defining livelihood diversification, introducing relevant theoretical models, and emphasizing the importance of diversification in rural livelihoods. The subsequent sections of the literature review examine the major challenges encountered in implementing livelihood diversification strategies in Ethiopia. These challenges are divided into economic, social, environmental, and policy and institutional constraints. The review then shifts its focus to the opportunities for sustainable livelihoods through diversification, including discussions on policy and institutional support, technological advancements, and market opportunities. Based on these insights, the literature review offers evidence-based policy recommendations for enhancing livelihood diversification in Ethiopia, covering both policy and institutional improvements as well as practical strategies for key stakeholders. The impacts of diversification on poverty alleviation are discussed, followed by an exploration of

its broader contributions to sustainable development, encompassing environmental sustainability, social well-being, and economic growth. Finally, the literature review concludes by summarizing key findings and their policy implications, while emphasizing the role of livelihood diversification in

Ethiopia's development journey. It calls for further research and action in this critical area, ultimately guiding the efforts of government agencies, NGOs, and other stakeholders in Ethiopia.

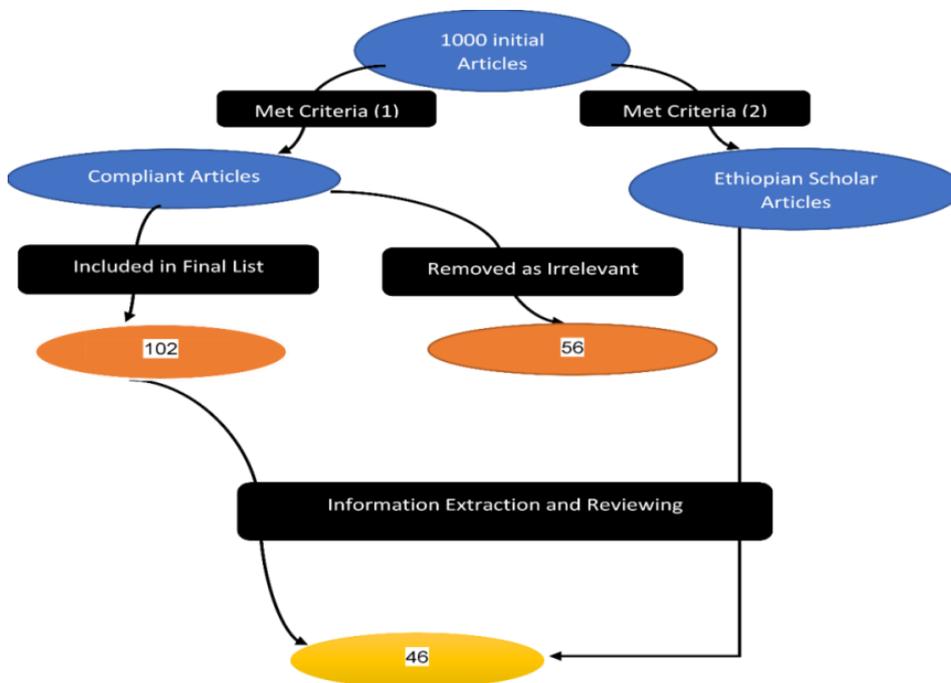
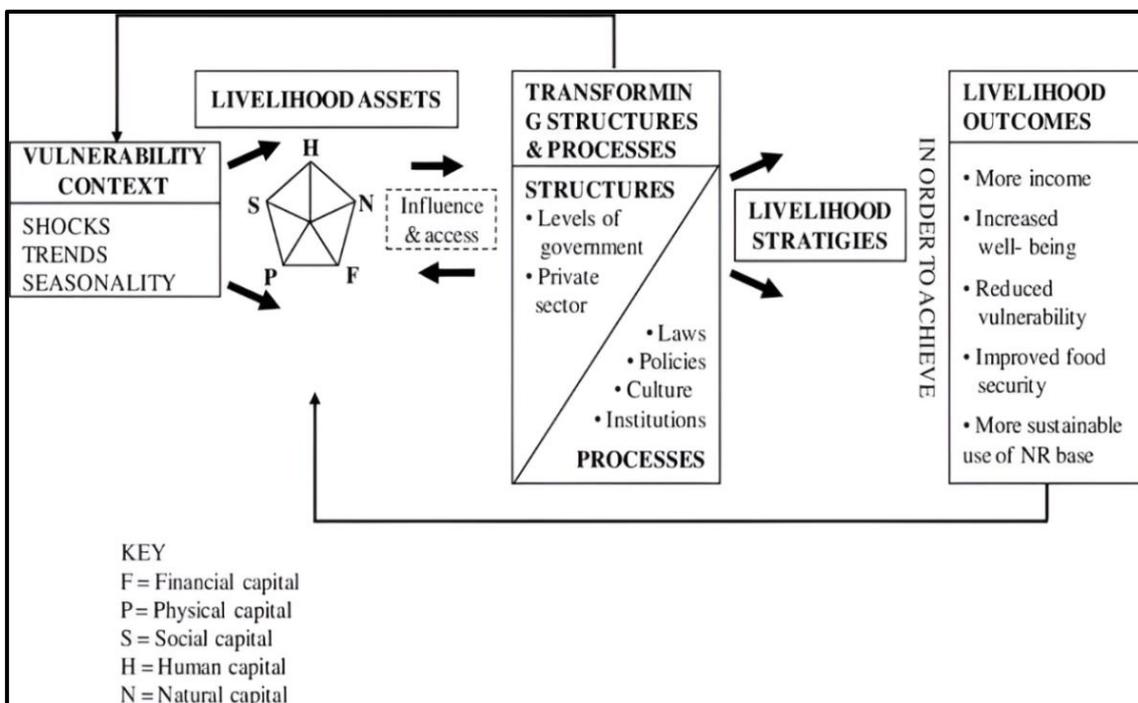


Figure 1. Screening map for this review.



Source: developed the widely accepted sustainable livelihood framework (SLF) [35].

Figure 2. Sustainable livelihood framework.

2. Literature Review

2.1. Livelihood Diversification: Conceptual Framework

Livelihood diversification refers to the process by which rural families construct a diverse portfolio of activities and social support capabilities in their struggle for survival and to improve their standards of living [30]. Livelihood diversification is the process by which households construct a portfolio of activities and assets to cope with economic and environmental shocks, reduce poverty, and improve their well-being [3].

2.2. Theoretical Frameworks: Sustainable Livelihood Framework

Sustainable livelihood is constructed on five essential classes of livelihood property (assets), the pentagon to emphasize their interconnections, and the truth that livelihood relies upon an aggregate of property of diverse types and now no longer simply one category. An essential part of the evaluation is to discover people's right of entry to special forms of property (physical, human, financial, natural, and social) and their potential to position those to effective use. The status of this framework gives a manner of assessing how the family head, people, and groups shape livelihoods, each through figuring out who profits get the right of entry to which kind of asset, and defining what variety of livelihood techniques are open and appealing to people [27].

2.2.1. Vulnerability Context

The vulnerability context relates to the external environment can affect the susceptibility to poverty and consequently the potential for livelihood sustainability. It is described in terms of shock (sudden death, drought, and conflict, and wars, accidents, Underling the SLA is the theory that people draw on arrangements as capital Assets for their livelihood, all of which explain the situation where people live and they are restricted [28].

2.2.2. Livelihood Asset

Underling the SLA is the theory that people draw on the arrangement of a capital asset to further their livelihood objective [36]. Assets are categorized into social (social network and relationships of trust), human (skill, knowledge, age, and labor), natural (natural resource stock) physical (transport, shelter, water, and energies), and financial (saving, credit, and income), etc.

Natural capital:

Natural capital describes especially for resource-dependent communities the stock all livelihood activities are built on. This capital represents in particular rural communities, with a

high proportion of poor stakeholders, an essential value that is prone to calamities. Not seldom these calamities are caused by natural processes e.g., floods, fires, seasonal storms, and earthquakes [29].

Human capital:

Human capital is education, skills, knowledge, employability, and health that are important to the successful pursuit of a livelihood strategy [30]. Age, access to training, educational status, family size, farm advisory visits, and, gender were the most important determinants of human capital for livelihood diversification.

Physical capital:

Physical capital comprises the basic infrastructure and tools and equipment needed to be productive in building infrastructures, distance from nearest to market [30].

Financial capital:

It is cash; credit /debit and savings or financial assets are organizational income, access to credit grants, or savings. Financial capitals are financial resources that are deposited in a bank or liquid assets such as jewelry, livestock, and financial institutions [31].

Social capital:

Social resources (networks, social qualifications, social relationships, affiliations, associations) that people use in pursuing various self-sufficient strategies that require collaborative action. Therefore, to lead a normal life, people need to combine "capital" assets that they can access and manage. These consist of personal skills, tangible assets (such as consumables and physical resources), and intangible assets (skills and access) [32].

2.2.3. Policy, Institution, and Processes

Policy and institutions represent an important source of external factors that influence the livelihood of people, through influencing access to assets and reducing vulnerability to shocks, positive livelihood outcomes can be produced [28]. For instance, institutions that influence livelihood outcomes include formal membership organizations (cooperatives and registered groups), informal organizations (Flexible labor community or rotation savings group), political institutions (parliament, law and order, or political parties), economic institutions (markets, private companies, banks, land rights or the tax system), and socio-cultural institutions (kinship, marriage, inheritance or religion) [28].

2.2.4. Livelihood Strategies

Livelihood strategies fall into three major clusters within a sustainable livelihood framework. These include agricultural improvement/expansion, livelihood diversification, and migration. Rural population options have the potential to earn more livelihoods from agriculture through the process of strengthening (increasing yield per unit area due to increased fixed investment or labor input) and expansion (more farmland). Non-agricultural income to diversify activities, they

seek temporary or permanent livelihoods elsewhere [33].

2.2.5. Livelihood Outcome

Livelihood outcomes are the outcome of a rural household's livelihood strategy that leads to the context of vulnerabilities and the foundation of wealth and for shock and stress as opposed to the outcome of poor livelihoods that deplete the wealth infrastructure with successful strategies. You can build a foundation of wealth as a buffer; this increases the vulnerability [34]. The most basic livelihood outcomes are related to satisfaction with basic human needs such as food, water, energy, shelter, clothing, hygiene, and medical care. The result is to achieve home sustainability and provide the next generation with the desired quality of life [35].

2.3. Importance of Diversification

Why diversification is crucial for rural livelihoods In the Ethiopian context?

Diversification is crucial for rural livelihoods as it enables farm households to have better incomes, enhance food security, and cope with environmental stresses. In the Ethiopian context, where the majority of the population relies on agriculture, diversifying rural economies is essential for poverty reduction and ensuring food security. Empirical evidence from various studies in Ethiopia, such as the Chewaka resettlers' communities of southwestern Ethiopia, the South Gondar zone, Amhara Regional State, and the Jimma Zone, Oromia National Regional State, supports the importance of livelihood diversification in improving rural households' welfare and managing household food security [46]. Additionally, rural households in Ethiopia engage in diverse off-farm and non-farm livelihood activities to cope with the unstable and meager agricultural context, further emphasizing the significance of diversification in the Ethiopian rural setting [23]. Therefore, promoting diversified livelihood strategies is essential for enhancing the livelihood and welfare of rural households in Ethiopia.

Diversification is crucial for rural livelihoods, significantly reducing poverty and enhancing household welfare. In the Ethiopian context, where agriculture is the primary source of livelihood for many rural households, diversification plays a vital role in reducing poverty, improving food security, and helping households cope with environmental stresses and shocks [24]. Empirical evidence from various regions in Ethiopia, such as the South Gondar Zone, Amhara Regional State, and the Jimma Zone, Oromia National Regional State, supports the positive impact of livelihood diversification on rural households' welfare and poverty reduction [25]. Additionally, the unstable and meager agricultural context in Ethiopia has led rural households to engage in diverse off-farm and non-farm livelihood activities, further emphasizing the significance of diversification in the Ethiopian rural setting [23]. Therefore, promoting diversified livelihood strategies is essential for enhancing the livelihood and welfare

of rural households in Ethiopia, particularly in the face of climate change and other environmental challenges.

Livelihood diversification helps rural households in Ethiopia cope with economic shocks by providing alternative sources of income and enhancing household welfare. The following points illustrate how diversification assists in coping with economic shocks:

Reducing poverty: Livelihood diversification is significant in reducing rural poverty, as households with diversified livelihoods are 9% better off than those with non-diversified livelihoods in terms of poverty [24]. In Ethiopia, poverty is highly correlated with the size and composition of households, the educational level of household heads, the degree, and extent of dependency within the household, asset ownership, and other factors [25].

Enhancing food security: Diversification enables farm households to have better incomes and enhance food security [46]. In Ethiopia, agriculture is the principal source of food and livelihood for many rural households, making it a central component of programs that seek to reduce poverty and achieve food security [25].

Coping with environmental stress and shocks: Livelihood diversification is an essential strategy for rural households in Ethiopia to cope with environmental stress and shocks [25]. In the face of climate change and other environmental challenges, households with diversified livelihoods are better positioned to manage the impacts of these shocks and maintain their livelihoods.

Improving resilience: Evidence shows that income diversification is primarily driven by the need to enhance resilience to food insecurity and poverty [26]. Households with diversified livelihoods are less vulnerable to the impacts of economic shocks and can better manage the effects of such shocks on their well-being.

In conclusion, livelihood diversification plays a crucial role in helping rural households in Ethiopia cope with economic shocks by providing alternative sources of income, enhancing household welfare, and improving resilience to food insecurity and poverty.

2.4. Major Challenges in Implementing Livelihood Diversification Strategies in Ethiopia

The major challenges in implementing livelihood diversification strategies in Ethiopia are multifaceted. Rural households often face a lack of capital, which hinders their ability to invest in and pursue alternative livelihood activities [26]. In addition, inadequate infrastructure, such as poor transportation and limited access to electricity, can impede the implementation of diversification strategies by hindering access to markets and resources. Furthermore, limited access to credit services poses a significant challenge, making it difficult for rural households to obtain the necessary financial resources to support diversification efforts [26]. The scarcity of farmland

is another obstacle, particularly in rural areas where agriculture is the primary source of income [21]. Moreover, market constraints, including challenges in accessing markets for products and services, as well as competition from more established businesses, can also hinder the success of diversification strategies [21].

2.4.1. Economic Challenges

Livelihood diversification strategies face several economic challenges in Ethiopia, including income variability, access to financial resources, and market constraints.

Income Variability: Rural households engaging in livelihood diversification strategies may face income variability due to the unpredictable nature of non-agricultural activities. This can make it difficult for households to plan and invest in their livelihoods, leading to reduced income and well-being [24].

Access to Financial Resources: Access to finance remains a significant challenge for many businesses in Ethiopia, particularly small and medium-sized enterprises (SMEs) [17]. Rural households may face difficulties accessing credit and other financial services to support their livelihood diversification efforts.

Market Constraints: Rural households may face market constraints, including limited access to markets and low prices for their products. This can make it difficult for households to sell their products and generate income [13].

Addressing these challenges requires a multi-faceted approach, including the provision of training and capacity-building programs, the development of tailored financial products, and the promotion of market access and value chain development. Additionally, investment in sustainable land management practices and the empowerment of women can contribute to the success of livelihood diversification strategies in Ethiopia.

2.4.2. Social Challenges

Gender disparities and cultural factors significantly impact livelihood diversification in Ethiopia. Research has shown that gender, family size, age, education, and experience in farming can affect household decision-making regarding livelihood diversification strategies [43].

In many cases, men are the leading players in agricultural and non-agricultural diversification activities, while women, particularly those in female-headed households, may face challenges in accessing resources and participating in livelihood diversification [13, 43]. Additionally, cultural factors and gender discrimination can influence access to credit and market opportunities, further impacting the ability of women to engage in diversified livelihood activities [20, 43].

2.4.3. Environmental Challenges

Livelihood diversification efforts in Ethiopia face several environmental challenges, including land degradation and climate change impacts.

Land Degradation: Land degradation is a significant challenge in Ethiopia, particularly in rural areas, where overgrazing, deforestation, and unsustainable land use practices have led to soil erosion and reduced agricultural productivity [8]. This can make it difficult for rural households to engage in diversified livelihood activities.

Climate Change Impacts: Climate change is a significant challenge for livelihood diversification efforts in Ethiopia, particularly for those engaging in agriculture. Erratic rainfall patterns, droughts, and floods can lead to crop failures and reduced agricultural productivity, impacting rural households' income and well-being [37].

Addressing these environmental challenges requires a multi-faceted approach, including the promotion of sustainable land management practices, the development of climate-resilient agricultural practices, and the provision of training and capacity-building programs to equip rural households with the skills and knowledge needed to adapt to environmental challenges [8, 37]. Additionally, investment in climate-resilient infrastructure and the promotion of ecosystem-based approaches to natural resource management can contribute to the success of livelihood diversification strategies in Ethiopia.

2.4.4. Policy and Institutional Challenges

Policy and institutional challenges, such as the lack of supportive policies and institutional constraints, can hinder the implementation of livelihood diversification initiatives in Ethiopia. These challenges can be attributed to factors such as limited access to credit services, poor infrastructure, and inadequate market access, which can constrain the success of diversification efforts [22]. Furthermore, the scarcity of farmland and competition from more established businesses can also pose significant obstacles for rural households seeking to diversify their livelihoods [22]. Addressing these policy and institutional challenges requires a comprehensive approach that includes promoting supportive policies, improving infrastructure, expanding access to credit services, and promoting market access for rural households in Ethiopia.

2.5. Opportunities for Sustainable Livelihoods Through Diversification in Ethiopia

Opportunities for sustainable livelihoods through diversification in Ethiopia are evident in the potential to enhance food security, improve incomes, and cope with environmental stresses. Research findings from southern Ethiopia indicate that livelihood diversification enables farm households to have better incomes and enhance food security [46].

Despite the challenges, there is growing evidence that rural households in Ethiopia are participating in diverse livelihood trends, emphasizing the potential for diversified livelihood strategies to address the seasonality associated with agricultural production and improve overall welfare [46]. Additionally, the expansion of livelihood diversification is seen as one

of the pathways out of poverty and a means to ensure food security in the country [46]. Therefore, promoting and supporting livelihood diversification initiatives in Ethiopia presents an opportunity to improve the well-being of rural households and enhance their resilience in the face of environmental and economic challenges.

2.5.1. Policy and Institutional Support

The Ethiopian government and NGOs have implemented various policies and programs to promote livelihood diversification strategies. For instance, the government has implemented the Agricultural Growth Program, which aims to increase agricultural productivity and promote diversification of rural livelihoods [19]. Additionally, NGOs such as the International Livestock Research Institute (ILRI) have implemented programs to promote livestock-based livelihood diversification strategies in Ethiopia [20]. The ILRI program focuses on improving livestock productivity, enhancing market access, and promoting value addition to livestock products. Furthermore, the government has implemented policies such as the Agricultural Extension Policy, which aims to provide extension services to rural households to promote sustainable agricultural practices and diversification of livelihoods [22]. These policies and programs aim to address the challenges faced by rural households in Ethiopia, such as limited access to credit services, poor infrastructure, and inadequate market access, which can constrain the success of diversification efforts [22, 24]. Therefore, the government and NGOs' efforts to promote livelihood diversification strategies in Ethiopia present an opportunity to improve the well-being of rural households and enhance their resilience in the face of environmental and economic challenges.

2.5.2. Technological Advancements

Access to technology and improved agricultural practices create opportunities for livelihood diversification in Ethiopia. The government of Ethiopia has given a lot of attention to the agricultural sector and institutions that support it, with policies such as the Agricultural Growth Program and the Agricultural Extension Policy, which aim to increase agricultural productivity and promote diversification of rural livelihoods [18, 20].

Additionally, NGOs such as the International Livestock Research Institute (ILRI) have implemented programs to promote livestock-based livelihood diversification strategies in Ethiopia, focusing on improving livestock productivity, enhancing market access, and promoting value addition to livestock products [26]. Furthermore, the adoption of improved agricultural technologies remains a promising strategy to achieve food security and poverty reduction in Ethiopia [18]. Therefore, access to technology and improved agricultural practices presents an opportunity to promote livelihood diversification in Ethiopia, enhance food security, and improve incomes.

2.5.3. Market Opportunities

Emerging opportunities for livelihood diversification in Ethiopia are evident in the potential to engage in export-oriented products and the services sector. Ethiopia's economic diversification efforts have led to increased export opportunities, contributing to reduced dependence on agriculture as the primary source of income [17]. The country's leading vegetable and cut flower export sector, for instance, presents an opportunity for rural households to engage in diversified livelihood strategies [15]. Additionally, the services sector, including tourism, information technology, and financial services, presents emerging opportunities for rural households to diversify their livelihoods [17]. These opportunities provide a platform for rural households to tap into the growing export market and the expanding services sector to improve their incomes and overall well-being [16].

2.6. Impacts of Livelihood Diversification on Poverty Alleviation

Livelihood diversification has been found to have a significant impact on poverty alleviation in Ethiopia. Studies have shown that households engaging in diversified livelihood strategies are better off in terms of poverty reduction, improved food security and nutrition, enhanced income, and economic growth.

2.6.1. Income and Poverty Reduction

How diversification can impact household income and reduce poverty.

Livelihood diversification is important for urban development in Ethiopia to alleviate poverty and food insecurity [10]. The non-farm sector plays a significant role in reducing poverty in sub-Saharan Africa [11]. The impacts of livelihood diversification on poverty alleviation in Ethiopia are significant, as diversification strategies have been found to contribute to reduced poverty and improved well-being. Diversification opens avenues for growth by providing additional income sources, which can help maintain and enhance households' capabilities and assets [12]. Diversification strategies contribute to improved food security and nutrition, which in turn contribute to poverty reduction [24]. Income from off- or non-farm sectors is likely to enable rural households to increase their overall income and reduce poverty [24].

Livelihood diversification plays a crucial role in promoting economic growth and reducing rural poverty in developing countries [12]. By engaging in a variety of economic activities, rural households can better manage the effects of economic shocks and enhance their overall resilience. In conclusion, livelihood diversification strategies have a significant impact on poverty alleviation in Ethiopia, as they contribute to reduced poverty, improved food security and nutrition, enhanced income, and economic

growth. Promoting and supporting livelihood diversification initiatives in Ethiopia presents an opportunity to improve the well-being of rural households and enhance their resilience in the face of environmental and economic challenges.

2.6.2. Case Studies and Success Stories

Livelihood diversification strategies have been successful in Ethiopia, as evidenced by various case studies and success stories. For instance, a study conducted in the South Gondar zone, Amhara Regional State, Ethiopia, found that diversified livelihood strategies improved the livelihood and welfare of rural households [24]. Additionally, a study conducted in the north Wollo zone, Amhara National Regional State, Ethiopia, found that livelihood diversification played a crucial role in promoting economic growth and reducing rural poverty [19]. Furthermore, a study conducted among peri-urban households in Amhara Regional State, Ethiopia, found that diversification of livelihoods was crucial to addressing poverty and food insecurity and improving the welfare of peri-urban people [13]. In the Kebri Dahar district of Ethiopia, livelihood diversification has positively impacted food security and should be promoted to enhance security in the area [14]. These studies demonstrate the potential of livelihood diversification strategies to improve the well-being of rural households and enhance their resilience in the face of environmental and economic challenges.

2.7. Livelihood Diversification and Sustainable Development

Livelihood diversification plays a crucial role in sustainable development, particularly in the context of poverty reduction and the construction of sustainable livelihoods. In many rural areas of developing countries, including Ethiopia, livelihood diversification is a common and critical strategy for reducing poverty and enhancing resilience. While the direct and long-term impacts of livelihood diversification on sustainable livelihood construction are challenging to generalize due to the contextual and dynamic nature of this strategy, evidence suggests that it contributes to improved food security, enhanced income, and economic growth. Studies have shown that livelihood diversification is pursued for a variety of motivations and is likely to become increasingly important in the future [12, 13, 24]. Furthermore, the adoption of improved agricultural technologies and access to export markets present opportunities for rural households to engage in diversified livelihood strategies, further contributing to sustainable development. Therefore, promoting and supporting livelihood diversification initiatives in Ethiopia and other developing countries is essential for improving the well-being of rural households and enhancing their resilience in the face of environmental and economic challenges.

2.7.1. Environmental Sustainability

The relationship between livelihood diversification sustainable land/resource management and climate resilience in Ethiopia is a topic of significant research. Several studies have explored the drivers of livelihood diversification and its effects on the adoption of sustainable land management (SLM) practices in the country. For example, a study conducted in the Upper Blue Nile Basin examined the covariates that shape rural livelihood diversification and their effects on the intensity of adoption of SLM practices [7]. Additionally, research has highlighted the nexus between livelihood diversification and farmland management strategies, emphasizing the importance of environmentally friendly land management practices for sustainable agricultural development [8]. Furthermore, Ethiopia's commitment to economic diversification, including the promotion of diversified livelihood strategies, is recognized as a critical strategy for establishing more resilient and dynamic economies capable of sustainable growth. These findings underscore the integral role of livelihood diversification in promoting sustainable land and resource management, as well as enhancing climate resilience in Ethiopia.

2.7.2. Social Well-Being and Empowerment

Livelihood diversification in Ethiopia has been shown to play a crucial role in empowering women, enhancing community development, and contributing to social well-being. Research conducted among peri-urban households in Amhara Regional State, Ethiopia, emphasizes that diversification of livelihoods is crucial to addressing poverty and food insecurity and improving the welfare of peri-urban people [13]. Additionally, studies have indicated that livelihood diversification plays a decisive role in the reduction of poverty, and food insecurity, and the improvement of the welfare of rural communities in Ethiopia [46]. Furthermore, the findings from Kaffa Zone, Ethiopia, demonstrate that multiple livelihood diversifications have positive effects on the well-being, productivity, and food security of smallholder farmers [9].

Livelihood diversification can empower women, enhance community development, and contribute to social well-being in Ethiopia. By engaging in diverse livelihood activities, women can increase their economic status and improve household nutrition. Livelihood diversification strategies such as off-farm and non-farm activities provide women with opportunities to generate income and gain financial independence [4]. Additionally, it can contribute to social well-being by improving dietary diversity and nutritional status among women and children [5].

Livelihood diversification strategies should be supported by government and non-governmental organizations to empower women, enhance community development, and improve social well-being in Ethiopia [6]. These insights highlight the significant impact of livelihood diversification on social well-being and community development in Ethiopia, making it an important strategy for poverty reduction and the empowerment of women in rural areas.

2.7.3. Economic Sustainability

Livelihood diversification can contribute to economic growth and address income inequality in Ethiopia through several mechanisms: *Increased income*: Diversification strategies, particularly those involving off-farm or non-farm activities, can lead to increased income for rural households [24]. This additional income can help improve food security, education, healthcare, and overall well-being. *Risk management*: Diversified livelihoods can help rural households manage economic risks associated with agriculture, such as climate variability and unpredictable rainfall [19]. By engaging in non-farm activities, households can reduce their dependence on agriculture and mitigate the impacts of environmental shocks. *Employment opportunities*: Diversification strategies can create new employment opportunities for rural households, particularly for women and youth [13]. These opportunities can help reduce poverty, enhance skills, and promote social well-being. *Market access*: Diversified livelihoods can improve households' access to markets, allowing them to sell their products and services at competitive prices [22]. This increased market access can contribute to economic growth and help address income inequality by providing rural households with opportunities to earn higher incomes. *Technology adoption*: Livelihood diversification can encourage the adoption of improved agricultural technologies, which can lead to increased productivity and income [20]. By engaging in diversified livelihood strategies, rural households can access new technologies and enhance their overall productivity.

In conclusion, livelihood diversification can contribute to economic growth and address income inequality in Ethiopia by increasing income, managing risks, creating employment opportunities, improving market access, and promoting technology adoption. Promoting and supporting livelihood diversification strategies in Ethiopia is essential for improving the well-being of rural households and enhancing their resilience in the face of environmental and economic challenges.

2.8. Evidence-Based Policy Recommendations for Enhanced Livelihood Diversification

2.8.1. Policy Recommendations

Based on the evidence from various studies on livelihood diversification in Ethiopia, the following evidence-based policy recommendations can be made to enhance livelihood diversification in the country:

Promotion of Off-Farm Activities: The government should promote off-farm activities to reduce the reliance on agriculture and mitigate the impacts of environmental shocks. This can be achieved through the provision of training, access to credit, and the development of off-farm employment opportunities [24].

Improvement of Market Access: Enhancing market access for rural households is crucial. This can be achieved through the development of infrastructure, such as roads and storage

facilities, and the provision of market information to rural producers. Additionally, the government should support the development of value chains for non-agricultural products to improve market access [19].

Enhancement of Access to Financial Services: Addressing the lack of access to credit services is essential. The government should work with financial institutions to develop financial products tailored to the needs of rural households. This can include microfinance products, savings, and credit cooperatives, and innovative digital financial services [22].

Investment in Sustainable Land Management: To ensure the sustainability of livelihood diversification, it is important to invest in sustainable land management. This includes promoting the adoption of environmentally friendly land management practices and providing support for the conservation of natural resources [20].

Empowerment of Women: Policies should be designed to specifically empower women to engage in livelihood diversification. This can include targeted training programs, access to resources, and the development of women's cooperatives for non-agricultural activities [13].

By implementing these evidence-based policy recommendations, Ethiopia can enhance livelihood diversification, reduce poverty, and improve the well-being of rural households.

2.8.2. Institutional Recommendations

Strengthening institutions and building capacity to support livelihood diversification in Ethiopia requires a multi-faceted approach. The following insights and recommendations are based on the available evidence:

Infrastructure Development: Addressing infrastructure bottlenecks, particularly in transportation and electricity, is crucial to support the growth of non-agricultural sectors. This requires further investment in infrastructure development to facilitate the movement of goods and people, ultimately supporting economic diversification [17].

Skills Development: Enhancing the skills and training of the workforce is essential to meet the demands of the burgeoning manufacturing and service sectors. This can be achieved through the development of vocational training programs, technical education, and on-the-job training to build a skilled labor force capable of supporting economic diversification [17].

Access to Finance: Improving access to finance, particularly for small and medium-sized enterprises (SMEs), is vital. This can be achieved through the development of tailored financial products, the expansion of microfinance services, and the provision of credit to support the growth of non-agricultural businesses [17].

Market Access and Export Promotion: Supporting market access and export promotion for non-agricultural products is essential. This can be achieved through the development of trade and investment policies, the provision of market information, and the facilitation of trade missions to connect businesses with international partners and markets [15].

Investment in Human Capital: Building human capital is crucial for economic diversification. This includes investing in education, healthcare, and social services to improve the well-being and productivity of the population, ultimately supporting economic growth and diversification [1].

Promotion of Sustainable Land Management: Investing in sustainable land management is essential to support economic diversification while preserving natural resources. This includes promoting the adoption of environmentally friendly land management practices and providing support for the conservation of natural resources [19].

By implementing these institutional recommendations, Ethiopia can strengthen its institutions and build the necessary capacity to support livelihood diversification, ultimately contributing to economic growth and the reduction of income inequality.

2.8.3. Practical Strategies for Stakeholders

Based on the available resources, here are some practical strategies for stakeholders, such as NGOs and community organizations, to support livelihood diversification in Ethiopia:

Training and Capacity Building: NGOs and community organizations can provide training and capacity-building programs to equip rural households with the skills and knowledge needed to engage in diversified livelihood activities. This can include training in off-farm income-generating activities, financial literacy, and entrepreneurship skills [24].

Access to Market Information: Stakeholders can support rural households by providing access to market information and linking them to potential buyers for their diversified products. This can help rural households make informed decisions about which products to focus on and where to sell them [22].

Promotion of Sustainable Land Management: Stakeholders can promote sustainable land management practices among rural households to ensure that livelihood diversification efforts are environmentally sustainable. This can include training on climate-smart agriculture and sustainable land and water management [2].

Access to Financial Services: NGOs and community organizations can work to improve rural households' access to financial services, such as microfinance and savings groups, to support the growth of non-agricultural businesses and off-farm activities [22].

Empowerment of Women: Stakeholders should implement programs specifically designed to empower women to engage in livelihood diversification. This can include providing access to resources, training, and support for women's cooperatives for non-agricultural activities [19].

Partnerships and Value Chain Development: NGOs and community organizations can facilitate partnerships and value chain development to connect rural households to markets and support the growth of non-agricultural businesses. This can include linking producers to buyers, processors, and other

actors in the value chain [2].

By implementing these practical strategies, stakeholders can support livelihood diversification in Ethiopia, ultimately contributing to economic growth, poverty reduction, and the well-being of rural households.

3. Conclusion

The review of the Challenges and Opportunities of Livelihood Diversification in Ethiopia reveals significant findings regarding their impact on poverty reduction and the well-being of rural households. The primary objective of this review was to identify and analyze the major challenges faced by individuals, communities, and policymakers in Ethiopia when implementing livelihood diversification strategies. The review found that some of the major constraints that affect livelihood diversification in Ethiopia include lack of infrastructural development, road and transportation problems, farmland scarcity, absence of technical support from concerned bodies, limited access to credit services, poor rural–urban linkages, and gender disparities. The review also explored and documented the various opportunities for sustainable livelihoods through diversification in Ethiopia, including the promotion of sustainable land management practices, climate-resilient agricultural strategies, and the provision of training and capacity building programs. The review provides evidence-based policy recommendations and insights to inform government agencies, NGOs, and other stakeholders about effective strategies to enhance livelihood diversification in Ethiopia. The review highlights the importance of promoting sustainable land management practices, climate-resilient agricultural strategies, and the provision of training and capacity building programs to support the success of livelihood diversification strategies in Ethiopia. Overall, while livelihood diversification presents opportunities for poverty reduction and improved well-being, addressing the identified challenges is essential to maximize its potential impact and ensure inclusivity and sustainability. The findings of this review can inform policy and action by policymakers, NGOs, and stakeholders in Ethiopia. The review highlights the need for investment in infrastructure development, access to credit services, and the promotion of gender equality to support livelihood diversification efforts. Furthermore, the review emphasizes the importance of promoting sustainable land management practices, climate-resilient agricultural strategies, and the provision of training and capacity building programs to support the success of livelihood diversification strategies in Ethiopia. The role of livelihood diversification in Ethiopia's development agenda is significant, and addressing the identified challenges is essential to establish more resilient and dynamic economies capable of sustainable growth. Further research is needed to explore the effectiveness of livelihood diversification strategies in different contexts and to identify additional opportunities and challenges. Stakeholders should take action to address the identified challenges and promote the opportunities presented by livelihood diversification to support poverty reduction and sustainable development in Ethiopia.

Abbreviations

NGOs: Nongovernmental Organizations
 SLA: Sustainable Livelihood Approach
 SMEs: Small and Medium-Sized Enterprises
 ILRI: International Livestock Research Institute

Author Contributions

Maslah Mahamed Duale is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The authors declare no conflicts of interest.

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