

Sustainable Livelihood Framework Theory and Applications

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Abstract

This article reviews the emergence and use of the Sustainable Livelihood Framework (SLF) in the context of sustainable development. It examines the existing literature and the criticisms surrounding the framework's implementation. By tracing the historical development of key theories and their connections, the review considers how these ideas have been assessed and modified over time. It identifies the resources needed in particular contexts to combine livelihood strategies and achieve favourable outcomes. The study offers a critical analysis of the SLF's development, its relationship with other theories and the elements needed to coordinate livelihood strategies within sustainable development.

Keywords: *Livelihood, Sustainable Livelihood Framework, slums, Urban Areas*

Introduction

The sustainable livelihoods framework (SLF) (UNDP, 2017), or sustainable livelihoods approach (SLA) (DFID, 1999), has become a cornerstone of academic research and fieldwork, particularly in rural areas of the global South. It is presented as an approach rather than a technique, and as a framework rather than a theory, but its contribution extends beyond these distinctions [1]. First, it represents an epistemological viewpoint that values local knowledge, engages with local people and puts the last person first. Although these ideas are now common in development terminology, it is easy to overlook how radical they were when the approach emerged [2]. Second, although the SLA is not a methodology, it favours certain methods, having developed from Rapid Rural Appraisal (RRA) and later advances such as Participatory Learning and Action (PLA). Third, it connects with the Capabilities Approach, which places people at the centre of development, and became popular from the late 1990s onwards [3]. The concept of livelihoods has been criticised as a term, a framework or strategy, and an epistemology. Nevertheless, it remains widely used in ways similar to its original formulation. Scoones observes that livelihoods approaches seem to be applied to almost everything. Its focus on

village life and individual capabilities may, however, inadequately reflect contemporary changes in rural livelihoods. Climate change, environmental degradation and natural resource exploitation have altered agriculture and made livelihoods increasingly precarious for millions of smallholders, while government funding for agriculture has declined.

Purpose of the Review

This review's objective is to critically analyze the idea of sustainable livelihoods, which includes the plans and methods used by people and communities to meet their most basic requirements while protecting the health and resilience of the environment. This study aims to shed light on the relevance of sustainable livelihoods in the context of major global issues including climate change, [economic inequality](#), and resource depletion. To do this, it analyzes the guiding principles, frameworks, and essential elements of sustainable livelihoods. The ultimate goal is to offer insights into how sustainable livelihood methods might influence policies and practices to promote long-term wellbeing, social fairness, and ecological sustainability for current and future generations.

Conceptual Framework

Three main goals are covered in this portion of the study. First of all, it offers a thorough definition of sustainable livelihoods, highlighting the complexity of livelihoods and stressing how crucial sustainability is to guaranteeing long-term wellbeing [4]. In order to illuminate the many viewpoints and analytical frameworks used to comprehend and evaluate livelihood systems, it also investigates numerous theoretical methods and models that support the idea of sustainable livelihoods. The section concludes with an overview of the fundamental ideas and elements that make up the sustainable livelihoods framework. This understanding includes the social, economic, environmental, and institutional factors that should be taken into account when pursuing sustainable livelihoods.

Definition of Sustainable Livelihoods

In 2022, Natarajan *et al.* [5] proposed an SLF for the twenty-first century that emphasizes a structural, spatially-disaggregated, dynamic, and ecologically-coherent approach to conceptualizing rural livelihoods. This speaks to both historical critiques and more contemporary arguments. In an effort to allow diverse theoretical traditions to more effectively collaborate with developing rural livelihoods, we present a framework rather than a strategy in our SLF.

In 2021, Nasrnia *et al.* [6] presented a sustainable livelihood method to be used to identify and

quantify the household livelihood resilience in the Bakhtegan basin. Thus, utilizing household capitals, the household livelihood resilience index was computed. The research showed that, on average, households in the study region had a poor level of resilience, with a household livelihood resilience score of 0.359. Then, using data mining to identify patterns of resilience, four distinct resilience patterns were identified, each starting with a lower average resilience across all parameters than the others.

In 2020, Bvuma *et al.* [7] presented in order to promote ICT adoption and enhance the livelihood of township SMMEs, an ICT adoption framework employing the sustainable livelihood framework (SLF) must be developed. The sustainable livelihood framework (SLF) was utilized in this study to examine the more comprehensive socio-economic aspects of the township SMMEs, including the human, social, financial, physical, and natural resource-based assets that help the underprivileged increase their capacities and decrease their vulnerabilities. A qualitative exploratory research methodology was used in this study. Data were gathered through in-depth interviews and observations with a sample of 21 SMME owners and managers who operate in Soweto. The study found that township SMMEs are complex, dynamic, and require a variety of interventions in order to be sustainable.

In 2023, Fahad *et al.* [8] evaluated the technique for the spatial recognition of multidimensional poverty was created and used to conduct a county-level poverty assessment in rural Vietnam in order to assess the multidimensional poverty status of poor households in Ha Giang province, Vietnam, using the DFID (Department for International Development) sustainable livelihood framework. The multidimensional poverty standard is regarded as a cutting-edge method for evaluating poverty, pinpointing its origins, and motivating impoverished households to enduringly leave it.

In 2019, Huluka *et al.* [9] examined the HDD-related factors. The cross-sectional survey that was conducted in two districts of Ethiopia's Illu Ababora Zone, Oromia region, provided the data for this article. 334 farm homes in total, 263 of which were headed by men and 71 by women, were polled. The HDD score, which is a continuous value that ranges from 0 to 12, was determined using twelve distinct food categories. Following that, this score was recoded to a three-level ordered categorical variable. To test the reliability and consistency of the findings, ordered probit, OLS regression, and Poisson regression were utilized.

In 2020, Nhamo *et al.* [10] employed an integrated water-energy-food (WEF) nexus analytical model to evaluate resource availability, distribution, usage, and management at a local level in Sakhisizwe Local Municipality, South Africa. The purpose was to provide guidance for enhancing the rural populations with limited resources' means of subsistence. Combining a malformed spider graph with the computed municipal composite index of 0.185, the result of resource management is only slightly

sustainable. The study helped the determination of priority areas for intervention and clarified the interaction between the intricately interconnected socio-ecological components.

Table 1: Sustainable Livelihoods

Author	Aim	Methodology	Problem Statement
Natarajan et al. [5] 2022	Propose a sustainable livelihood framework (SLF) for the 21 st century that emphasizes a structural, spatially-disaggregated, dynamic, and ecologically-coherent approach to rural livelihoods. Present a framework for collaboration with diverse theoretical traditions.	Framework development.	Address the need for a more contemporary and ecologically-coherent approach to conceptualizing rural livelihoods, allowing collaboration between diverse theoretical traditions.
Nasrnia <i>et al.</i> [6] 2021	Use a sustainable livelihood method to identify and quantify household livelihood resilience in the Bakhtegan basin. Compute the household livelihood resilience index and identify resilience patterns.	Household resilience assessment using household capitals. Data mining for pattern identification.	Assess household livelihood resilience in the Bakhtegan basin and identify patterns of resilience to address poor resilience levels.
Bvuma <i>et al.</i> [7] 2020	Develop an ICT adoption framework employing the sustainable livelihood framework (SLF) to promote ICT adoption and enhance the livelihood of township SMMEs. Examine socio-economic aspects of township SMMEs.	Qualitative exploratory research using in-depth interviews and observations with SMME owners and managers in Soweto.	Enhance the livelihood of township SMMEs through ICT adoption by understanding their socio-economic aspects and vulnerabilities.
Fahad <i>et al.</i> [8] 2023	Evaluate a technique for spatial recognition of multidimensional poverty using the DFID sustainable livelihood framework. Conduct a county-level poverty assessment in rural Vietnam.	Spatial recognition of multidimensional poverty using the sustainable livelihood framework. County-level poverty assessment in Ha Giang province, Vietnam.	Assess multidimensional poverty in rural Vietnam and use the findings to motivate impoverished households to permanently escape poverty.

Huluka <i>et al.</i> [9] 2019	Examine HDD-related factors using a cross-sectional survey in Ethiopia's Illu Ababora Zone. Determine HDD scores and test reliability using ordered probit, OLS regression, and Poisson regression.	Cross-sectional survey with 334 farm homes, statistical analysis including ordered probit, OLS regression, and Poisson regression.	Investigate factors related to the Household Dietary Diversity (HDD) score and its implications for food security in Ethiopia's Illu Ababora Zone.
Nhamo <i>et al.</i> [10] 2020	Employ an integrated water-energy-food (WEF) nexus analytical model to evaluate resource availability, distribution, usage, and management in Sakhisizwe Local Municipality, South Africa.	Use an integrated water-energy-food (WEF) nexus model. Combine a malformed spider graph with a municipal composite index.	Assess resource availability and management in Sakhisizwe Local Municipality, South Africa, to improve the means of subsistence for rural populations. Evaluate the sustainability of resource management.

Theoretical Approaches and Models

In 2019, Woyesa *et al.* [11] examined the possibilities for sustainable life and environmental protection in southwest Ethiopia provided by coffee tourism. There is a suggested framework for developing coffee tourism sustainably. According to the report, while being somewhat sustainable, the production of forest and semi-forest coffee is losing favor because of its poor yield and net profit. Due to this shift in farming, the wild Arabica coffee gene pool and the moist montane habitat are both in danger of extinction.

In 2020, Mallick *et al.* [12] evaluated how a sustainable livelihood affects the non-migration choices of persons living at risk. The study examined the interaction between socio-ecological systems (SES) and livelihood circumstances. In five villages along Bangladesh's southwest coast, a mixed-methods approach was used for the field investigation. According to the findings, there are different livelihood possibilities in different SES contexts, and (non-)migration ambitions largely depend on the options for adapting one's livelihood, which determines how secure one's livelihood would be in the face of potential calamity.

In 2021, Su *et al.* [13] researched in Southern Shaanxi province, China, to determine the most efficient methods for governmental poverty alleviation programs based on the viability of farm households' livelihoods. In 24 rural communes in the Qinba Mountain Area in the Chinese province of Shaanxi, data from 414 farm households were gathered through field research and in-depth interviews for this study. This study investigates poverty alleviation strategies as well as the effects of different capital availability on sustainable livelihood using theoretical research methodologies and

the sustainable livelihood approach (SLA) framework. The study demonstrates that expanding local enterprises and state financial assistance enhance farmers' sustainable livelihoods and end extreme poverty.

In 2022, Raza Sargani *et al.* [14] proposed a new paradigm for smallholder farmers' sustainable livelihoods based on the grounded theory was used to exploit seven household assets and use mixed methodological approaches of growers' livelihood assets and climatic adaptation strategies based on farmers' livelihood concerns. To better understand smallholder farmers' sustainable livelihoods, partial least square path modelling was also used. The sustainable livelihoods index incorporates mediational variables into psychological assets (PsyA) when essential critical routes are taken into account.

In 2019, Gyawali *et al.* [15] proposed a sustainable livelihood and support the achievement of rural development goals, the livelihoods strategy can be connected to post-disaster rehabilitation methods. In three Nepalese post-disaster communities that had been rebuilt, the study used semi structured interview techniques. Key stakeholders were contacted for face-to-face interviews to learn more about the livelihood interventions being thought about for post-disaster rehabilitation strategies. According to the study, post-disaster efforts including relief, recovery, and reconstruction should be connected to the provision of livelihoods, the preservation of livelihoods, and the promotion of livelihoods. It is difficult to measure the shift in sustainable livelihoods after a disaster, but it must be taken into account as a long-term objective of post disaster recovery.

In 2023, Thomsen *et al.* [16] established a post humanist multispecies livelihoods framework (MLF) based on an applied ethnographic study of 47 wildlife ecotourism (WE) operators and wildlife researchers in protected area WTAs across four countries. It has to be improved since, like any framework, it only captures the writers' thoughts at one given moment. The MLF instead responds to requests in the tourism literature to recognise our effects on other species and promotes equitable livelihoods for both humans and nonhumans. The MLF does not claim to solve the problem of the poor treatment of nonhumans that can occur in tourism contexts.

Table 2: Problems identified in Theoretical Approaches

Author	Aim	Methodology	Problem Statement
Woyesa <i>et al.</i> [11] 2019	Examine sustainable coffee tourism in southwest Ethiopia and propose a framework for sustainability.	Field research and analysis	Decline in forest coffee farming threatens the wild Arabica coffee gene pool and the montane habitat.

Mallick <i>et al.</i> [12] 2020	Explore the impact of sustainable livelihoods on migration decisions in coastal villages in Bangladesh.	Mixed methods approach	Non-migration choices depend on livelihood options and resilience to calamities.
Su <i>et al.</i> [13] 2021	Investigate poverty alleviation strategies for farm households in rural Shaanxi, China, using the Sustainable Livelihood Approach (SLA).	Field research and SLA	Expansion of local enterprises and state assistance improve farmers' livelihoods and reduce extreme poverty.
Raza Sargani <i>et al.</i> [14] 2022	Propose a new paradigm for smallholder farmers' sustainable livelihoods using grounded theory and partial least square path modelling.	Grounded theory and modelling	Develop a comprehensive sustainable livelihood index incorporating psychological assets.
Gyawali <i>et al.</i> [15] 2019	Connect livelihood strategies with post-disaster rehabilitation methods in Nepalese communities using semi-structured interviews.	Semi-structured interviews	Emphasize the importance of integrating livelihoods into post-disaster recovery efforts for rural development.
Thomsen <i>et al.</i> [16] 2023	Establish a multispecies livelihoods framework (MLF) for wildlife ecotourism operators and researchers in protected areas.	Applied ethnographic study	Introduce the MLF to recognize human effects on other species and promote equitable livelihoods for all.

Key Principles and Components

In 2020, Li *et al.* [17] proposed a significant issue smallholder farmers confront in generating a living, as well as to provide a plan (or many) for expediting the decrease of their poverty and attaining sustainable development. To be more precise, we employed a hybrid strategy that combined qualitative and quantitative methodologies. Using the idea of sustainable living as a guide, six agricultural capitals are identified. Capacity and possible connections between them. Using a Grounded Theory analysis for smallholders. Farmers, we presented a newly constructed framework for sustainable smallholder farming lives by incorporating psychological capital (Psycap) into the resources for sustainable lives.

In 2020, Lan *et al.* [18] acquired information by conducting a survey of 427 families in China's Hulunbuir grasslands. We discover that the dominant household occupations in pastoral areas are currently pure or dominant pastoral husbandry, with dominant non-pastoral husbandry and non-pastoral husbandry serving as supplements. The future livelihood strategy of these households will

primarily involve expanding pastoral husbandry. Again, as our data demonstrates, having a source of income has a big impact on the livelihood patterns pastoral families choose for the now and the future.

In 2020, H. Nguyen *et al.* [19] explored land-use changes using institutional analyses at many sizes, including national, provincial, and local livelihoods, using institutional and sustainability analysis. According to the findings, there has been a direct correlation between changes in land use and livelihood during the past 30 years and legislative frameworks. The consequences on local livelihoods were among the obstacles to the practical application of national legislative frameworks at the provincial level. We make some suggestions for viable means of subsistence in the VMD, with particular emphasis on raising socioecological resilience.

In 2020, Mbithe Matiku *et al.* [20] proposed a number of planning and management techniques that have been employed for community-driven tourism initiatives, as well as several case studies where uses of some of these techniques have been successful. To lay the groundwork for a stakeholder-focused paradigm for locally driven tourist initiatives, important sustainable tourism metrics were selected.

In 2019, Afrianto Singgalen *et al.* [21] developed the ritual capital for sustainable tourist growth in rural areas. The key informants included were leaders of the community, traditions, religion, and rural government, and they were questioned to learn more about the ritual capital in-depth. According to the findings, the growth of rural tourism and the integration of ritual capital improved the ability of the Kakara and Limau Village's traditional community to access other capital.

Table 3: Problem identified in Principles and Components

Author	Aim	Methodology	Problem Statement
LI <i>et al.</i> [17] 2020	Address issues faced by smallholder farmers and propose a plan for sustainable development.	Hybrid strategy combining qualitative and quantitative methods.	Identify and address challenges in achieving sustainable livelihoods for smallholder farmers, integrating psychological capital (Psyncap).
Lan <i>et al.</i> [18] 2020	Explore livelihood patterns of households in China's Hulunbuir grasslands.	Conducted a survey of 427 families.	Examine the dominant household occupations and future livelihood strategies in pastoral areas, with a focus on income sources.

H. Nguyen <i>et al.</i> [19] 2020	Investigate land-use changes and their impact on livelihoods in the VMD.	Institutional analyses at national, provincial, and local levels.	Examine the relationship between land-use changes and legislative frameworks and their consequences on local livelihoods. Suggest means of subsistence.
Mbithe Matiku <i>et al.</i> [20] 2020	Explore planning and management techniques for community-driven tourism.	Case studies and selection of sustainable tourism metrics.	Investigate techniques and metrics for locally driven tourist initiatives.
Afrianto Singgalen <i>et al.</i> [21] 2019	Develop ritual capital for sustainable rural tourism growth.	Interviews with key informants from the community.	Examine the role of ritual capital in improving rural tourism and community access to other forms of capital.

Historical Evolution

The Sustainable Livelihoods Approach (SLA) first gained popularity in the development sector in the late 1990s, which is when it first came into being. It emerged in reaction to the inadequacies of earlier development strategies, which frequently concentrated on single-sector initiatives. In order to recognize how a complex web of circumstances, including social, economic, environmental, and political aspects, affect people's well-being, SLA places an emphasis on a holistic and multifaceted perspective of livelihoods. This strategy supports community involvement, resilience development, and sustainable resource management, making it an effective framework for combating poverty and advancing sustainable development all around the world.

Historical Perspective on Livelihoods

In 2021, Qin *et al.* [22] developed a research and analysis are supported by a multifaceted framework for sustainable development. Upon investigation, it was discovered that the state's designation of the town as a "Chinese Traditional Village" had encouraged Local rural tourism, which is crucial for raising the village's exposure, grows. The people' income, strengthening their feeling of community and fulfillment. The villagers' pride in their community leads them to value their community's heritage.

In 2020, Pasanchay *et al.* [23] proposed the costs and advantages of running a homestay from the standpoint of sustainable living. Homestay operators at a CBT destination in Laos were studied using a casestudy methodology that included semi-structured interviews, observation notes, and secondary sources. The research shows that running homestays has a big potential to progress SDGs 1 and 11,

but it also reveals huge expenditures that need to be planned for and managed collectively.

In 2021, Choithani *et al.* [24] developed a livelihood transitions and household well-being, detailed primary data were collected at two sites in West Bengal and Bihar and analyzed thoroughly using GIS and population census data. In contrast to what most academics and policymakers believe, we see broad-scale change. Although the transition away from agriculture is significant, there aren't many local alternatives to farming, therefore labor migration is more appealing than ever to many households. More permanent types of cyclical labor movement have replaced traditional seasonal versions. Our comparative analysis demonstrates that, as a result of the fluctuating timing of the drop in agricultural employment, this transformation's timing and type varied to some extent throughout India.

In 2018, Van Tran *et al.* [25] determined a current trend in climate change and its effects on the way of life for the people living in Nam Dinh province, Vietnam. By raising awareness of climate change and its detrimental effects on livelihood, it also seeks to boost government attention for adaption measures.

In 2003 McCabe *et al.* [26] developed the most important stage in this livelihood diversification has been the embrace of agriculture by pastoral Maasai living in northern Tanzania during the past 40 years. Current efforts to involve people in conservation efforts have been hampered by the quick social and economic changes that have come along with diversification, particularly in Tanzania's newly planned Wildlife Management Areas and the Ngorongoro Conservation Area. This study looks at how agriculture has been integrated into the Maasai people's traditional livestock-based economy in northern Tanzania, how that links to the body of knowledge on sustainable livelihoods, and how conservation policies may be affected.

In 2011 Amberntsson *et al.* [27] delivered a political and economic processes, together with their discursive underpinnings, that form current rural livelihoods in outlying areas through a historical perspective on rural livelihoods and policy regimes. The analytical framework emphasizes four important elements: smallholders' means of subsistence, rural policy regimes, terms of inclusion into the global economy, and notions of development and modernity. Critical political geography, world systems analysis, and many viewpoints on rural livelihoods and development serve as sources of inspiration.

Table 4: Historical Perspective on Livelihoods in identification

Author	Aim	Methodology	Problem Statement
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Qin et al. [22] (2021)	Develop a multifaceted framework for sustainable development and investigate the impact of designating a town as a “Chinese Traditional Village” on rural tourism and community well-being.	Research and analysis supported by a multifaceted framework.	Examines the influence of the “Chinese Traditional Village” designation on rural tourism, income, community, and heritage in the village.
Pasanchay et al. [23] (2020)	Analyse the costs and benefits of running homestays from the perspective of sustainable living at a CBT destination in Laos.	Case study methodology, including semi-structured interviews, observation notes, and secondary sources.	Explores the potential of homestays for advancing Sustainable Development Goals (SDGs) 1 and 11 while highlighting the significant expenses that need collective planning and management.
Choithani et al. [24] (2021)	Investigate livelihood transitions and household well-being in West Bengal and Bihar, India, with a focus on labor migration and alternatives to farming.	Detailed primary data collection using GIS and population census data.	Challenges the common belief regarding rural livelihoods and the transition away from agriculture by highlighting the appeal of labor migration due to limited local alternatives to farming.
Van Tran et al. [25] (2018)	Raise awareness of climate change and its impact on livelihoods in Nam Dinh province, Vietnam, and advocate for government adaptation measures.	Awareness-raising and advocacy efforts.	Aims to draw attention to climate change’s adverse effects on livelihoods and calls for government action in addressing adaptation measures.
McCabe et al. [26] (2003)	Examine the integration of agriculture into the traditional livestock-based economy of Maasai people in northern Tanzania and its implications for conservation policies.	Study of how agriculture has been integrated into the Maasai economy and its impact on conservation policies.	Investigates the challenges and changes brought about by agriculture integration in the Maasai’s traditional livestock-based economy and its implications for conservation efforts.

Amberntsson <i>et al.</i> [27] (2011)	Analyse political and economic processes shaping rural livelihoods in outlying areas, emphasizing four key elements through a historical perspective.	Analytical framework drawing from various sources including critical political geography and world systems analysis.	Explores the formation of current rural livelihoods by examining smallholders' subsistence, policy regimes, inclusion in the global economy, and notions of development and modernity.
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Emergence of Sustainable Livelihoods Approach

In 2018, Brocklesby *et al.* [28] examined whether community development theory and practice have been incorporated into the sustainable livelihood's strategy used by various organizations. It is found that community development is largely absent from sustainable livelihoods thinking, and it is argued that this is partly because community development practice is locally situated, making it challenging for externally driven sustainable livelihoods interventions to systematically incorporate community-level methods and practices.

In 2020, Hysa *et al.* [29] presented a study (1) to identify the key elements of a circular economy that support sustainability and development; (2) to examine the effect of these factors on the economic growth of European Union member states; and (3) to ascertain whether the three pillars of sustainable development incorporated into circular economy (CE) indicators (environmental-social-economic) are important to economic growth. To determine the influence of the circular economy on the economic expansion of European nations, we conducted a fixed effect panel data study.

In 2003 Arce *et al.* [30] approached to community development and sustainable livelihoods as kinds of strategic thinking based on various value orientations within the development policy domain. However, in their contrasts, we see reflected a crucial shift in the relationship between the state, the market, and the people. The two approaches are portrayed as parts of a continuum in the sphere of development. Despite these contrasts, they both reject the value contestations that support people's livelihood interests and experiences.

In 2013, Mazibuko *et al.* [31] developed the case that the settler colonial government in South Africa started out on a purposeful and intentional mission to under develop the native African populace. The study in the article demonstrates how various components of the framework for sustainable livelihoods contribute to the accomplishment of particular livelihood outcomes. A brief critique of the sustainable livelihoods strategy is offered as the article comes to a close.

In 2018, Ndhlovu *et al.* [32] explored the SLA's diagnostic potential as a framework for development

interventions and policy solutions for A1 farms that were purchased via Zimbabwe’s Fast-track Land Reform Programme (FTLRP), notably in Chiredzi. It implies that diversity and risk-taking behaviour are essential in A1 farming and should be part of livelihood plans. However, ineffective sector-based policies have frequently made these livelihood alternatives more difficult. The remaining informal livelihood alternatives could now be even more useful with the government’s apparent pullout from A1 farming.

In 2018, Edwards *et al.* [33] proposed the development has been unsuccessfully changed by linear and centralized methods. We list the “capitals” social, human/political, physical, environmental, financial, and cultural that are present in the watershed. This evaluation led us to suggest capital-based, comprehensive strategies for fostering community-driven transformation. Other susceptible locations throughout the world can apply the evaluation and the subsequent measures.

Table 5: Problem identification Emergence of Sustainable Livelihoods Approach

Author	Aim	Methodology	Problem Statement
Brocklesby et al. (2018)	Examine the incorporation of community development theory into sustainable livelihood strategies.	–	Absence of community development in livelihoods thinking.
Hysa et al. (2020)	Identify key elements of a circular economy for sustainability, examine their effect on EU economic growth, and assess the importance of the three pillars of sustainable development in circular economy indicators.	Fixed effect panel data study	Influence of circular economy on EU economic growth.
Arce et al. (2003)	Explore community development and sustainable livelihoods as strategic thinking in development policy, highlighting a shift in the relationship between the state, market, and people.	–	Shift in the relationship between state, market, and people.
Mazibuko et al. (2013)	Demonstrate how components of the sustainable livelihoods framework contribute to specific livelihood outcomes in the context of settler colonialism in South Africa.	–	Critique of the sustainable livelihood’s strategy.
Ndhlovu et al. (2018)	Explore the diagnostic potential of the SLA framework for development interventions and policy solutions for A1 farms in Zimbabwe, particularly in Chiredzi.	–	Challenges and opportunities in A1 farming.

Edwards et al. (2018)	Propose capital-based, comprehensive strategies for fostering community-driven transformation by evaluating the presence of various “capitals” in a watershed.	-	Ineffectiveness of linear and centralized development methods.
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Methodological Approaches

In 2002 Adato *et al.* [34] proposed the approach to sustainable lives, how it might be utilized in agricultural research, and a description of the specific procedures and outcomes from five case studies Modern rice varieties in Bangladesh, polyculture fishponds and vegetable gardens in Bangladesh, soil fertility management techniques in Kenya, hybrid maize in Zimbabwe, and creolized maize varieties in Mexico are some examples of the world’s most advanced agricultural advancements. Utilizing the sustainable livelihoods method brings to light the complex relationships between technology, household asset bases, institutions that can intervene, and means of subsistence.

In 2013, van Rijn *et al.* [35] proposed the evaluation is created using an updated Sustainable Livelihood Framework that takes into account both. The use of this paradigm has consequences for a multi-method research strategy, a wide range of data gathering techniques, and a thorough data analysis. By using the methodology to analyse a socioeconomic impact assessment carried out for the DE Foundation coffee assistance initiative, this is demonstrated.

In 2016, Massoud *et al.* [36] developed the resource management and oversight of numerous elements. Constraints in monitoring water quantity and quality, communication, and micro-macro connections, as well as the distribution of financial resources, are among the variables affecting the village’s way of life. The application of the sustainable livelihood approach led to the creation of a workable action plan and a set of management measures for the improvement of the village’s livelihood based on thorough local knowledge and community involvement.

In 2022, Ulukan *et al.* [37] focused on the improvement in the farming system to improve home sustainability, we set out to evaluate the existing sustainability of households in Tanzania. In order to create composite sustainability indices that represent the three pillars of sustainability (economic, environmental, and social), based on 46 fundamental indicators, data from 891 families in two areas of Tanzania (dry Dodoma and humid Morogoro) were used. After that, a typology of households was created using principal component analysis and hierarchical clustering analysis of descriptive data, and regression analysis was used to establish a relationship between the sustainability of farms and household characteristics. The research identified notable variations in household types that relied on

various means of subsistence, including a “gathering-based” type in Dodoma and two “crop-based” kinds in both areas.

In 2018, W a k e *et al.* [38] discussed in Central African Republic (CAR) refugees in Cameroon; the Rohingya refugees in Kuala Lumpur, Malaysia; the Syrian refugees in Zarqa, Jordan; and the Syrian refugees in Istanbul, Turkey. The article discusses the usefulness of this methodology to produce insight into the lives of refugees in four diverse contexts. The paradigm was useful because it made it possible to investigate how refugees see their environment, potential threats, and opportunities as well as their goals, course of action, and tactics.

In Basu 2021 *et al.* [39] developed the productivity, gender allows for a more nuanced picture of this larger aim, one that takes into account connections between the family and the larger community and state in addition to the household’s own internal dynamics. Thus, gender is brought to light throughout the nested scales of sustainable livelihoods and offers suggestions for how a more comprehensive definition of sustainable livelihoods might be put into practice.

Table 6: Problem identification

Author	Aim	Methodology	Problem Statement
Adato <i>et al.</i> [34] (2002)	Propose the approach to sustainable livelihoods and its application in agricultural research, with case studies.	Utilizes the sustainable livelihoods method to explore the complex relationships between technology, household assets, institutions, and means of subsistence.	-
van Rijn <i>et al.</i> [35] (2013)	Develop an updated Sustainable Livelihood Framework and apply it to assess the socioeconomic impact of a coffee assistance initiative.	Use a multi-method research strategy, various data gathering techniques, and thorough data analysis.	Demonstrates the application of the updated framework in evaluating socioeconomic impact.
Massoud <i>et al.</i> [36] (2016)	Focus on resource management in a village context and use the sustainable livelihood approach to create an action plan.	Examines variables affecting village life, leading to the development of an action plan and management measures.	Addresses constraints in monitoring water, communication, resource distribution, and micro-macro connections in the village.

Ulukan <i>et al.</i> [37] (2022)	Evaluate the sustainability of households in Tanzania using composite sustainability indices and typology creation.	Utilizes data from 891 families in Tanzania, composite indices, and typology creation to analyse household sustainability.	Identifies variations in household types and their means of subsistence in different areas of Tanzania.
Wake <i>et al.</i> [38] (2018)	Discuss the use of the sustainable livelihood methodology in understanding the lives of refugees in various contexts.	Investigates how refugees perceive their environment, threats, opportunities, goals, actions, and tactics.	Explores the usefulness of the methodology in diverse refugee contexts.
Basu <i>et al.</i> [39] (2021)	Develop a more comprehensive definition of sustainable livelihoods that considers gender and nested scales.	Highlights gender throughout nested scales of sustainable livelihoods and suggests practical implementation.	Offers a nuanced perspective that considers family, community, and state connections in sustainable livelihoods.

Factors Influencing Livelihoods

The interaction of [natural resources](#), environmental variables, socioeconomic and cultural factors, institutional dynamics, and policy dynamics all have a significant impact on how people make a living. Natural resources like arable land, water, and forests are the basis of many livelihoods, and the sustainability and availability of these resources directly affects people's well-being. The kind and standard of livelihoods pursued are governed by socioeconomic and cultural variables, such as education, gender roles, and cultural traditions. Moreover, government institutions and policies, such as laws, infrastructure, and social safety nets, can either support or obstruct the growth of livelihoods. This highlights the necessity for comprehensive and inclusive methods to help communities in their endeavors and the importance of the synergy and balance between these aspects in determining the resilience and sustainability of livelihoods.

Natural Resources and Environmental Factors

In 2020, Rahman Sunny *et al.* [40] proposed a household questionnaire, oral history interviews, and focus groups, researchers in Bangladesh's Sylhet division (north eastern region) were able to determine the demographics, livelihood strategy, fishing-related challenges and coping mechanisms, strength, weakness, and opportunities of fishing communities. Acute poverty, a bad economy, a lack of opportunities for alternate sources of income, and a reduction in the supply of fish were all highlighted by the study as frequent weaknesses of fishermen. Physical strength and the desire to

work year-round were listed as the primary assets. Natural disasters, overfishing, reliance on natural resources, and poor policy implications were the main concerns that the fishermen faced. The situation might be improved with the help of community-based fisheries management, training and motivating programs for resource users, and other revenue generation alternatives.

In 2020, Everard *et al.* [41] proposed the local population and the ecosystems for which they have defended tribal rights are closely related and function in harmony, according to a later analysis utilizing the social, technological, environmental, economic, and political framework. Authoritative local governance structures put the requirements of the local population for sustenance first, reducing the impact of outside state governments and private players on the exploitation of natural resources. Recognizing the value of ecosystem services provided by healthy and functioning habitats and exploring the possibility for 'paying for ecosystem services' marketplaces in addition to ecotourism and cultural tourism might lead to further sustainable economic growth.

In 2020, Maksimilianus Gai *et al.* [42] developed a village development idea based on sustainable livelihood. By combining primary and secondary data with a sample of 82 families, this study was carried out in Surumana Village, Donggala Regency, Central Sulawesi Province. The use of a Likert scale allowed researchers to assess how individuals or groups felt about certain social events or symptoms. In addition, the Delphi technique was utilized to get expert opinions using questionnaires with feedback mechanisms while retaining the anonymity of the experts' replies.

In 2019, Afrianto Singgalen *et al.* [43] proposed the development of sustainable tourism, this description focuses on the ritual capital in rural subsistence. The key informants included were leaders of the community, traditions, religion, and rural government, and they were questioned to learn more about the ritual capital in-depth. According to the findings, the growth of rural tourism and the integration of ritual capital improved the ability of the Kakara and Limau Village's traditional community to access other capital.

In 2019, Nyein Aye *et al.* [44] proposed according to the research, the sale of firewood, fish, crabs, and prawns harvested from mangrove forests accounts for 43% of all family income, with agricultural and non-farm revenues accounting for 25% and 32% of total income, respectively. As a consequence, income from the mangrove forest's fish, crab, prawn, and firewood products is primarily 36%, 28%, 9%, and 27%, respectively.

In 2019, Zeweld *et al.* [45] presented the dual effects of various agricultural methods on crop yields and farmers' livelihoods while taking sustainable lands into consideration. Farmers in six rural communities in the Tigray area of northern Ethiopia are surveyed using structured questionnaires to gather cross-sectional data. The findings indicate that factors such as education, labor availability,

agricultural extension services, attitudes, social capital, risk mitigation attitudes, farming experience, and soil conditions have important influences on farmers' decisions to adopt these methods.

Author	Aim	Methodology	Problem Statement
Rahman Sunny <i>et al.</i> [40]	Determine demographics, livelihood strategies, fishing-related challenges, coping mechanisms, and strengths/weaknesses of fishing communities in Bangladesh's Sylhet division.	Household questionnaire, oral history interviews, focus groups, data analysis.	Highlighted weaknesses include acute poverty, a bad economy, lack of income alternatives, and reduced fish supply.
Everard <i>et al.</i> [41]	Explore the relationship between local populations and ecosystems in the context of tribal rights, emphasizing sustainable economic growth.	Analysis using social, technological, environmental, economic, and political frameworks.	Focuses on authoritative local governance and the value of ecosystem services in achieving sustainable economic growth.
Maksimilianus Gai <i>et al.</i> [42]	Develop a sustainable livelihood-based village development concept in Surumana Village, Indonesia.	Use of Likert scale, Delphi technique for expert opinions, surveys with anonymity.	Investigates social events and symptoms in the context of sustainable village development.
Afrianto Singgalen <i>et al.</i> [43]	Explore the role of ritual capital in rural subsistence and its impact on rural tourism in Kakara and Limau Village.	Interviews with community leaders and government officials.	Focuses on how the integration of ritual capital can enhance the traditional community's access to other forms of capital.
Nyein Aye <i>et al.</i> [44]	Analyze the contribution of mangrove forest products (firewood, fish, crabs, prawns) to family income in a specific region.	Data analysis based on income sources.	Highlights the significant role of mangrove forest products in family income in contrast to other income sources.
Zeweld <i>et al.</i> [45]	Investigate the impact of various agricultural methods on crop yields and farmers' livelihoods in rural communities in Ethiopia.	Surveys using structured questionnaires to gather cross-sectional data.	Examines factors influencing farmers' decisions to adopt specific agricultural methods in the Tigray region of Ethiopia.

Socioeconomic and Cultural Factors

In 2020, Okafor-Yarwood *et al.* [46] found that African countries have successfully implemented BE programs that emphasize community engagement and support the maintenance of the natural ecosystem. Success for us is determined by how well social, ecological, and economic factors are balanced. We emphasize two important conclusions based on in-depth expert knowledge, observational data, and literature reviews of case studies from all over the African continent. First, massive BE projects put a higher priority on economic advantages than environmental protection. Degradation of the environment and marginalization of local populations. Then, they demonstrate that effective BE treatments are sustained over the full spectrum (FSS) of the intervention. They take into account institutional, sociocultural, economic, and ecological goals. Drawing on these findings, they recommend using a collaborative approach based on these case examples. Incorporates both bottom-up and top-down management strategies for business operations.

In 2003 Anderson *et al.* [47] proposed the variables that distinguish between species and breeds in terms of the tasks that animals complete in livelihoods and household economics need to be better understood in order to appreciate the value of AnGR, as distinguished from livestock per se, for sustaining and enhancing the livelihoods of the poor. the heart of this. The complete range of goals the impoverished have in mind, as well as the roles of livestock as family assets, must be understood. investing in the genetic characteristics of animals that are essential for achieving these goals. The goal of anGR conservation is to help disadvantaged livestock caretakers improve their standard of living. The significance of AnGR should be evaluated from the viewpoint of cattle caretakers.

In 2005 de Haan *et al.* [48] discussed the importance of livelihoods studies and looks at the barriers that have kept it from contributing more to understanding the lives of the poor during the past ten years. The conceptualization of the access problem and ways to improve knowledge of the relationship between livelihood possibilities and decision-making are two important concerns that are tackled after looking at the foundations of the livelihoods approach.

In 2009 Daskon *et al.* [49] discussed the significance of cultural values in achieving the sustainability of rural livelihoods and is based on fieldwork conducted in two communities near the city of Kandy in central Sri Lanka. The study shows that, while important, the sustainable livelihoods strategy falls short in its attempts to take into account traditional cultural values and commonly regards culture as a barrier to identifying chances for livelihood and charting future development trajectories.

In 2014, Landreth *et al.* [50] developed the Socio-ecological feedbacks between factors hindered

efforts to sustain home garden livelihoods, including increased wild animal incursions impeding household climate adaptation and disaster recovery, global organic and fair-trade incentives lowering food security and livelihood resilience, and national seed and animal regulations impeding home garden sustainability initiatives. Despite these constraints, households continued to have home gardens because they valued them for their dietary, aesthetic, and cultural preferences. In order to identify underappreciated environmental and cultural benefits, reveal livelihood feedbacks from drivers of ecosystem change, avoid unintended consequences from interventions, and capitalize on stakeholder priorities' synergies, ecosystem services approaches can be used in conjunction with sustainable livelihood approaches.

Author	Aim	Methodology	Problem Statement
Okafor-Yarwood et al. [46] 2020	Investigate the success of BE programs in African countries emphasizing community engagement and ecosystem maintenance.	In-depth expert knowledge, observational data, literature reviews, case studies	Effective BE treatments should consider the full spectrum of intervention goals.
Anderson et al. [47] 2003	Understand the variables distinguishing species and breeds in livelihoods, highlighting the value of AnGR for the poor.	-	Need to better understand the role of AnGR (Animal Genetic Resources) in improving the livelihoods of the poor, including the range of goals and roles of livestock as family assets.
de Haan et al. [48] 2005	Discuss the importance of livelihoods studies and address barriers to their contribution to understanding poverty.	-	Barriers to the contribution of livelihoods studies to understanding poverty and the need to improve knowledge of livelihood possibilities and decision-making.
Daskon et al. [49] 2009	Explore the significance of cultural values in sustaining rural livelihoods based on fieldwork in Sri Lanka.	Fieldwork conducted in two communities near Kandy, central Sri Lanka.	The sustainable livelihoods strategy falls short in considering traditional cultural values. Culture is often seen as a barrier to identifying livelihood opportunities and future development paths.

Landreth et al. [50] 2014	Develop an understanding of socio-ecological feedbacks impacting home garden livelihoods and suggest using ecosystem services approaches.	-	Various constraints affecting home garden livelihoods, including wild animal incursions, global incentives affecting food security, and national regulations.
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Criticisms and livelihoods for the approach's shortcomings

In 2020, Cherunya *et al.* [51] proposed this method ignores the actual need for livelihood rebuilding during upgrading. They suggest examining the time-space arrangement in order to more clearly grasp these criteria. Behaviours that we define as making up Oscillating Domestic Spaces. The idea illustrates the variable nature of everyday tasks to satisfy necessities for subsistence and how individuals manage these conditions. The Kenyan Slum Upgrading (Kensup) project in Nairobi, Kenya, serves as an illustration of the difficulties involved in creating new household spaces.

In 2013, Poole *et al.* [52] presented a critique of commercializing smallholder farming for Sub-Saharan African agriculture. It first challenges the efficacy of a comprehensive “metanarrative” approach to development. The discussion then moves on to various forms of knowledge, principles, and methodology, highlighting the increasingly diverse backdrop for development policies as well as the diversity of smallholders who are the ‘targets’ of agrifood programs.

In 2020, Nazim Uddin *et al.* [53] proposed a framework for sustainable livelihoods, garbage pickers in Dhaka, Bangladesh, were able to provide a comprehensive assessment of several elements of daily living and employment. Concerning livelihood assets and vulnerabilities, the framework adopts an integrated and transdisciplinary approach. Our research shows that, despite their efforts to improve municipal sustainability, garbage pickers are living in abject poverty and are frequently mistreated. To decrease dangers and enhance the working conditions for garbage pickers, certain regulations, strategies, and activities are needed.

In 2015, Hanrahan *et al.* [54] developed a feminist ethic of care’s possible contribution to livelihood strategies. Criticisms of the present-day claim that social wellbeing has been devalued in Favor of considerations of material outcomes. I contend that independence and autonomy provide the framework for how we now analyse how people provide for themselves. The interdependent and contingent character of the ties that make up our social life has been concealed, and as a result, social connections have been limited to playing a supporting function. Through the developing talks of

livelihood strategies between an elderly lady and her daughter-in-law in rural northern Ghana, the possibility for taking a careful approach to livelihoods is investigated.

In 2015, Biggs *et al.* [55] compared the dynamics between human populations and the natural environment, nexus techniques and possible links with sustainable livelihoods theory and practice should be identified. On the basis of this review, we investigate the idea of “environmental livelihood security,” which refers to a system’s ability to sustain itself by maintaining a balance between the supply of natural resources and the demands of human activity on the environment. We also develop an integrated nexus-livelihoods framework for doing so.

Author	Aim	Methodology	Problem Statement
Cherunya et al. [51]	To address the need for livelihood rebuilding during slum upgrading in Kenya.	Examination of time-space arrangement	Arrangement to better understand this criterion and the challenges faced in creating new household spaces in Kenyan slums.
Poole et al. [52]	To critique the commercialization of smallholder farming in Sub-Saharan Africa.	Critique of “metanarrative” approach	Challenges the efficacy of a comprehensive “metanarrative” approach to development in Sub-Saharan African agriculture, highlighting the diverse backdrop for development policies and the diverse nature of smallholders targeted by agrifood programs.
Nazim Uddin et al. [53]	To propose a sustainable livelihood framework for garbage pickers in Dhaka, Bangladesh.	Integrated and transdisciplinary approach	Despite efforts to improve municipal sustainability, garbage pickers in Dhaka, Bangladesh, live in abject poverty and are mistreated. The paper emphasizes the need for regulations, strategies, and activities to improve their working conditions.
Hanrahan et al. [54]	To explore the contribution of a feminist ethic of care to livelihood strategies.	Ethnographic analysis	Criticizes the devaluation of social well-being in favor of material outcomes in the analysis of livelihood strategies, and explores the potential of a careful approach to livelihoods through the interactions between an elderly lady and her daughter-in-law in rural northern Ghana.

Biggs et al. [55]	To investigate the dynamics between human populations, the natural environment, and sustainable livelihoods.	Framework development	Investigates the concept of “environmental livelihood security” and develops an integrated nexus-livelihoods framework for understanding the relationship between human populations and the environment in sustaining natural resources.
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LIVELIHOOD OUTCOMES

As a result of people’s success or failure in transforming the resources available to them through a variety of strategies, livelihood outcomes can be aggregated and seen in relation to their position on a continuum between vulnerability and security as well as the result of their success or failure in terms of more income, increased well-being, reduced vulnerability, improved [food security](#), more sustainable use of natural resources, and restored human dignity—between which there may once more be conflict. It is important to comprehend the goals of a certain organization and the degree to which these goals have previously been met.

Living conditions do not necessarily affect all family members equally since some members have greater power and influence outside or inside the home. The stability of the household will be based on the man’s dedication to the family and his ongoing good health, for instance, when only male household leaders have legal standing, such as in credit agreements or property deeds. Therefore, depending on the consequences of their livelihood, some members may be more secure while others may be more vulnerable. The impoverished engage in a variety of livelihood methods with more or less quantifiable effects. Thus, livelihood outcomes may result in a positive or negative cycle. One result can occasionally have a detrimental impact on another. For instance, when impoverished individuals participate in less hazardous and lower-paying occupations to be less susceptible to shocks, the ideal pattern of livelihood outcomes is likely different possibly placing more emphasis on income-related in metropolitan regions. When evaluating the results of sustainable living alternatives, it is crucial to look into the multiplier impact (both positive and negative).

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