

A review of gender equality and social inclusion issues in Zambia's agribusiness ecosystem

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Contents

Abbreviations and acronyms3
Summary5
1. Background6
1.1 Overview of Zambia's agriculture and agribusiness sector and CGIAR's Initiative on Diversification in East and Southern Africa (UU)6
2. Method
Step 1: Scoping and planning9
Step 2: Inclusion and exclusion criteria for eligibility10
Step 3: Identification11
Step 4: Screening11
Step 5: Narrative synthesis11
3. Findings
3.1 GESI principles for identifying specific groups of excluded, vulnerable, and marginalized people12
3.2 GESI analysis and strategic planning13
3.3 Effective partnerships, collaboration, and advocacy in promoting GESI considerations in agribusiness
3.4 GESI-responsive programming, budgeting, and implementation18
3.5 Knowledge management and GESI-responsive monitoring, evaluation, and learning19
3.6 Leadership in GESI21
3.7 Inclusive scaling of agricultural and climate- smart innovations22
3.8 Innovations in GESI-transformative approaches24
4. Discussion30
5. Recommendations
6. References
7. Annex: Summary of the documents reviewed (n=78)39

Exhibits

TABLE 1. Evaluating and mapping publications10
FIGURE 1. Key dimensions of gender transformative
change 26



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Summary

This comprehensive review was commissioned by the International Institute of Tropical Agriculture (IITA) through the CGIAR Initiative on Diversification in East and Southern Africa, commonly known as the Ukama Ustawi (UU) Initiative. It explores gender equality and social inclusion (GESI) challenges and opportunities within the East and Southern Africa (ESA) region, with a specific focus on Zambia's agribusiness sector. The review adopts a systematized literature search and narrative synthesis of evidence on GESI issues within agribusiness in Zambia. This will guide the development of a GESI capacity assessment and development strategy for agribusiness network actors. In doing so, it will inform tailored capacity-strengthening interventions that contribute to UU Work Package (WP) 4 work on developing learning alliances to enhance GESI-compliant agribusiness interventions. The scope encompasses an overview of gender mainstreaming in Zambia; the status of GESI in the country's agribusiness ecosystem; findings on potential GESI core capacities and related case studies; discussion of key findings; conclusions and recommendations focused on future outlook, opportunities, and research gaps.

The review emphasizes the demographic hurdles Zambia's youthful population presents and the struggles smallholder farmers face, particularly women and youth. Despite being dominated by smallholder farming, the agribusiness landscape encounters challenges like limited access to productive resources, including land, capital, credit, technologies and innovations, knowledge and advisory services. Such challenges are driven by deeply rooted harmful sociocultural norms and misaligned laws that contribute to social inequalities. However, there are opportunities for growth and innovation in commercial agriculture and agroprocessing, aligning with the government's commitment to developing agribusiness.

The review unpacks potential GESI core capacities in transforming agribusiness. These are essential for

guiding and informing tailored capacity-strengthening interventions among agribusiness network actors who are part of the UU Initiative including researchers, government, private sector, and civil society partners. The following eight GESI core capacities have been identified as derived from the gender capacity development guide by Transition International (TI) and the International Livestock Research Institute (ILRI) (2016):

- Principles of identifying excluded, vulnerable, and marginalized groups
- 2. GESI analysis and strategic planning
- Effective partnerships and advocacy for promoting GESI considerations
- 4. GESI-responsive programming, budgeting, and implementation
- 5. Knowledge management and GESI-responsive monitoring, evaluation, and learning (MEL)
- 6. Leadership in GESI
- 7. Inclusive scaling of agricultural and climatesmart innovations
- 8. Innovations in GESI transformative approaches

The findings highlight challenges and research gaps as well as underscore the multifaceted efforts needed for inclusive and sustainable GESI programming in Zambia's agribusiness sector. The findings also underline the importance of integrating GESI into agricultural research for development (AR4D) by addressing the agribusiness needs of marginalized groups to achieve sustainable development objectives. Henceforth, this review serves as a roadmap for guiding targeted interventions and assessing and enhancing the capabilities of agribusiness stakeholders.

1. Background

1.1 Overview of Zambia's agriculture and agribusiness sector and CGIAR's Initiative on Diversification in East and Southern Africa

Zambia is a landlocked nation covering 752,618 km², of which 743,318 km² (98.8 percent) is land surface and 9,220 km² (1.2 percent) is covered by water. It is the 39th largest country globally. Geographically, Zambia is divided into 10 provinces and 116 districts. As of 2022, the country had an estimated population of 20.51 million, resulting in a population density of 26.6 people/ km². That year, the country experienced an average annual population growth rate of 2.7 percent, similar to that of sub-Saharan Africa (SSA). The population is predominantly young, with a median age of 17.3 years.² Although youth represent 64 percent of the workingage population and 56 percent of the labor force, they face a higher unemployment risk than non-youth do. In 2019, Zambia had an overall unemployment rate of around 11 percent, with youth unemployment at 21 percent (Mulema et al., 2021). This trend of a growing youth cohort is expected to persist. By 2025, Zambia is projected to have one of the highest fertility rates (4.03) in the Southern African Development Community sub-region.3

The agricultural sector is the backbone of Zambia's economic development, employing 56 percent of its population. The country's Seventh National Development Plan rates the agriculture sector as the fourth-most significant contributor to gross domestic product (GDP) and the largest contributor to employment. The country has an estimated 74 million hactares of arable land, 47 percent of which is agricultural, while only 15 percent is currently under cultivation (Nawiko et al., 2022). The sector is a crucial buffer for employment volatility and enhancement of food and nutrition security, particularly for vulnerable communities. Zambia's agribusiness sector plays a vital role in thecountry's economy, featuring a mix of large commercial farms, smallholder farmers, and agroprocessing industries (World Bank, 2012). The sector's key features include agricultural diversity, smallholder farming challenges, a growing commercial agriculture sector, agroprocessing and value addition,

export potential, research and innovation, sustainability initiatives, and private sector involvement (Mulema et al., 2021; Nawiko et al., 2022).

From 2011 to 2020, agricultural growth averaged only 0.4 percent, well below the national population growth rate of 2.8 percent. The sector is characterized by low productivity, limited mechanization, and heavy reliance on rainfall. Maize-mixed systems dominate, covering 2.7 million ha, with 90 percent of smallholders growing it complemented by non-indigenous crops prioritized for investment, including cotton, coffee, tobacco, sugarcane, pineapples, cashew nuts, cassava, and horticultural/floricultural crops (Nawiko et al., 2022). Livestock accounts for 35 percent of agriculture and 7 percent of total GDP, offering investment opportunities in various areas (Nawiko et al., 2022). Although the country has vast irrigation potential, only a fraction has been developed.

In SSA, agrifood systems are a major employer of women, accounting for 66 percent of their employment (FAO, 2023). Despite the importance of agrifood systems for women's livelihoods and the welfare of their families, compared to men, women's roles tend to be marginalized and their working conditions tend to be worse, as they are characterized by irregular, formal, part-time, low-skilled, and labor-intensive agricultural roles coupled with market access challenges (IITA, 2022; Mulema et al., 2021). The COVID-19 pandemic has exacerbated the situation, reversing gains in agricultural development in ESA (AGRA, 2020b).

Empirical evidence from SSA highlights a persistent gender productivity gap of 24 percent between women- and men-managed farms of the same size, driven by gender disparities in access to productive resources (FAO, 2023). These gender disparities reduce women's agricultural output, with an estimated average yield gap of 20-30 percent. The World Bank Gender and Innovation Lab (GIL) identified productivity gaps in various SSA countries, including Ethiopia, Malawi, Niger,

- 1 https://www.macrotrends.net/countries/ZMB/zambia/population-growth-rate
- 2 https://www.worldometers.info/world-population/zambia-population/
- 3 https://www.unfpa.org/data/world-population/ZM

Nigeria, Tanzania, and Uganda, costing millions of dollars annually (O'Sullivan et al., 2014). These genderreinforced disparities extend to the agribusiness and agritrade sectors, resulting in profitability gaps between women- and men-led enterprises. Recent research reveals that women and youth encounter significant challenges in starting, running, and expanding their agribusinesses, leading to a detrimental cycle of underperformance. This results in a gender profitability gap of up to 34 percent between agribusinesses led by men compared to those led by women and youth (GIL World Bank, 2019). The situation is compounded by climate change events in ESA, placing agricultural production worth more than US\$45 billion at risk from unreliable rainfall patterns, high temperatures, extreme droughts, and flash floods (Nortje et al., 2023). Thus, investing in programming to close GESI gaps in productivity and agribusiness offers significant benefits for individuals, families, communities, and countries. It enhances food security and livelihoods and positively impacts Africa's growing population. Ensuring equal access to resources for women and youth can increase agricultural yields and reduce hunger, fostering inclusive growth for over one billion Africans.

The next decade is crucial for strengthening food, land, and water systems in ESA region (Nortje et al., 2023). The agribusiness sector is pivotal for agricultural and economic development, climate resilience, and empowering women and youth (Woodhill et al., 2020). Investments in innovation, capabilities, and supportive environments are essential to achieve sustainable growth that benefits everyone. Empowering women and youth economically can increase investments in food security, health, education, and children's nutrition, resulting in a better-fed, better-educated, and more economically productive generation of Africans (Mabiso & Benfica, 2019).

The UU Initiative aims to promote climate-resilient agriculture and livelihoods across 12 countries in ESA: Kenya, Rwanda, Ethiopia, Zambia, Zimbabwe, Malawi, Uganda, Tanzania, South Africa, Mozambique, Madagascar, and Eswatini. It focuses on helping smallholder farmers intensify, diversify, and reduce risks in maize-based farming through improved extension services, development of small and medium enterprises (SMEs), governance support, and gender-inclusive investments in six research areas. During its first phase (2022–2024), the UU Initiative has been operating in Zambia, Rwanda, Malawi, Zimbabwe, Kenya, and Ethiopia. IITA is supporting some of its goals through WP5 in collaboration with other CGIAR centers: the International Water Management Institute (IWMI),

International Food Policy Research Institute (IFPRI), Alliance of Bioversity International and CIAT (ABC), and WorldFish. IITA is contributing to crosscutting WP5 core activity towards enabling socially inclusive and gender-equitable outcomes. Specifically, IITA was tasked to conduct a literature review on crucial GESI issues in the agribusiness sector of the UU Initiative, focusing on Zambia. This will guide the development of a GESI capacity assessment and development strategy and tools for agribusiness network actors, informing tailored capacity-strengthening interventions that contribute to UU WP4's work on developing learning alliances to enhance GESI-compliant agribusiness interventions.

Decades of efforts in mainstreaming gender equality have led to a consensus that GESI concepts should be integrated into AR4D programming in the global South (GESI Working Group, 2017). GESI distinguishes itself by incorporating social inclusion, gaining transnational applicability and global acceptance. GESI emphasizes the importance of ensuring resources and support are accessible inclusively and equitably, particularly for vulnerable and marginalized groups (Tamang, 2022). Related to GESI, is the concept of intersectionality, which considers interacting influences of multiple intersecting social identities on an individual's experience with empowering and marginalizing structures. Intersectionality thus serves a vital tool in women's and gender studies, offering a deeper understanding of social identity and its impact on inclusion/exclusion (Colfer et al., 2018). The review posits that addressing additional barriers faced by certain members, especially women and youth, based on their social identities is crucial for their participation in agribusiness development programs. GESI is portrayed as more than just an approach; it is a mindset, a process, and a set of outcomes ensuring that development programs are universally inclusive (Tamang, 2022). In the agribusiness sector, GESI principles are seen not only as ethical imperatives but also as essential drivers of sustainable agricultural development and economic growth. Recognizing and addressing the specific needs of women, youth, and marginalized groups in agribusiness is pivotal for achieving broader development objectives and harnessing the sector's full potential for societal benefit (Nortje et al., 2023).

According to the Gender Status Report 2017-2019, Zambia proposed governance changes that relocated the gender portfolio from a dedicated ministry to the Cabinet Office (Ministry of Gender Zambia, 2020). Despite this shift, Zambia remains committed to gender-related international conventions, using the Gender

Status Report to monitor progress. National gender policies including the 2016 Constitution, Gender Equity and Equality Act, and National Gender Policy aim to rectify imbalances and promote equality. The co-existence of formal legal frameworks and patriarchal cultural norms poses a challenge, resulting in legal dualism (Ministry of Gender Zambia, 2020). Although the constitution recognizes gender equality, the acceptance of customary laws perpetuates disparities. Initiatives outlined in the 2020 Gender Status Report focus on women's empowerment in agriculture and agribusiness, addressing challenges in access to land, education, financial support, and technology (Ministry of Gender Zambia, 2020). Despite commendable efforts, the significant gender gap in land ownership persists, reflecting ongoing obstacles in achieving comprehensive gender equality in Zambia (Akamandisa et al., 2023).

A workshop organized by IITA in 2022 highlighted key issues in Zambia's agribusiness ecosystem, hindering progress toward GESI and the Sustainable Development Goals (SDGs). Challenges included persistent poverty, entrenched gender inequalities limiting opportunities for women and girls, and the adverse impact of HIV/AIDS (Nawiko et al., 2022). The Gender inequality index increased from 0.517 in 2017 to 0.540 in 2018, indicating growing disparities (IITA, 2022). Social structures associating physical disabilities with divine curses contribute to inequalities. Disharmony in Zambian laws complicates the implementation of

gender strategies, while harmful cultural norms impede women's participation, especially in commercialized agriculture value chains. Despite contributing to agricultural production and agribusiness, women and youth face limited benefits (IITA, 2022). Addressing these issues requires comprehensive strategies targeting institutional reforms, cultural norms, and the involvement of traditional leaders. The workshop emphasized the urgent need for collaborative efforts to advance gender equality in Zambia.

Zambia's agribusiness sector plays a vital role in the country's economy, featuring a mix of large commercial farms, smallholder farmers, and agroprocessing industries (World Bank, 2012). The sector's key features include agricultural diversity, smallholder farming challenges, a growing commercial agriculture sector, agroprocessing and value addition, export potential, research and innovation, sustainability initiatives, and private sector involvement (Mulema et al., 2021; Nawiko et al., 2022).

Specifically, this review seeks to unpack and analyze GESI challenges and opportunities in Zambia's agribusiness ecosystem. The scope of the review covers the following thematic areas: an overview of gender mainstreaming in Zambia; the status of GESI in Zambia's agribusiness ecosystem; methods findings on the core capacities of GESI; discussion and recommendations on the future outlook on GESI in Zambia's agribusiness ecosystem.



2. Method

We used an evidence-based practice method as posited by Koutsos et al. (2019) and Grant and Booth (2009) that involved a systematized literature search and narrative synthesis of the evidence on GESI issues in agribusiness and agriculture in Zambia with insights from SSA context. The method follows the basic steps of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses flowchart as described by Koutsos et al. (2019) and modified by the study into a new flexible and easy-to-follow framework with the following five steps: (1) scoping and planning, (2) eligibility/assessment, (3) identification, (4) screening, and (5) narrative synthesis.

Step 1: Scoping and planning

The scoping and planning of the review, generation of search terms and key attributes were guided by the following research question: what are the specific GESI opportunities and challenges driving agribusiness transformation in ESA? We identified 78 relevant studies on GESI issues in agribusiness and agriculture.

Generation of search terms and key attributes

We generated search terms and key attributes and developed a search categories. We considered all possible synonyms, related terms, autonyms and abbreviations to develop search terms. This mapping of potentially relevant keywords streamlined the task of composing an appropriate search string, providing a good balance between breadth and relevance for the search results. Table 1 presents the search terms, evaluation, and mapping criteria. Using articles from 2000 to 2023 provided a valuable historical context and foundational understanding of gender dynamics and inequalities. This period witnessed significant advancements in gender theory, policy development, and activism in relation to the Millennium Development Goals and their transition to the SDGs, which can inform and enrich current research and interventions. By drawing upon this body of work, the review builds on established strategies, frameworks, theories and methodologies, ensuring a comprehensive and

nuanced approach to addressing GESI issues in agribusiness.

We focused the geographical scope of the review of Zambia with additional related empirical insights from SSA and Southeast Asia given that:

- They account for a significant proportion of the world's population that is facing unique socioeconomic, cultural, and political challenges related to GESI.
- 2. They have been at the forefront of global discussions on development, poverty alleviation, and women's empowerment, making them critical areas for GESI-focused research and interventions.

Key search terms and inclusion criteria

Bodies of literature: Gender Equity; Gender Equality; Women Empowerment; Women's and Youth's Leadership and Political Participation; Household Decision-Making; Entrepreneurship; Gender and Social Norms; Gender Roles; Gender Gaps in Agriculture; Gender Transformative Approaches; Social Inclusion; Marginalized and Vulnerable Groups; Inclusive Scaling; Gender and Social Inclusion; Climate Change and Adaptation Strategies; Disabilities; Gender Transformative Interventions; Resilience; Access And Control Over Resources; Youth Engagement in Agribusiness; Sustainable Development; Inclusive Finance; Inclusive Agribusiness; Agricultural Value Chains; Agricultural Policy and Advocacy; Social Relations; Farming Innovations and Technology; Intersectionality; GESI-responsive Agribusiness; GESI integration in Policies; GESI Integration in Project Cycles; GESI Responsive Planning; GESI Responsive Programming and Budgeting; GESI Monitoring and Evaluation; GESI and (GESI and agribusiness); GESI Responsive Programming; GESI Budgeting and Implementation; GESI Knowledge Management; and Leadership in GESI.

Not women- and youth-related, GESI, agribusiness, and agriculture

Excluded

Timeframe: 2000-2023	Before 2000
Geographical scope: countries in SSA and Southeast Asia	Countries in the global North

An initial search was conducted to identify literature from the Web of Science (WoS), a digital research database recognized for its wealth of scientific articles. However, we found that there was limited literature on GESI in agribusiness, as the search yielded only five articles. The second search was initiated based on other digital databases and websites which included:

- Google Scholar
- Taylor and Francis
- Elsevier
- Routledge
- Research Gate
- CGSpace
- SAGE Journals
- Wiley Online Library

- IDS Bulletin
- Springer
- Science Direct
- AGRA website
- USAID website
- UNDP website
- World Bank website
- FAO website

Various literature materials comprising journal articles, working papers, technical reports, books, book chapters, strategic plans, and policy documents were sourced from the above, and other databases were reviewed as well. (check the annex for further information)

Step 2: Inclusion and exclusion criteria for eligibility

We used three inclusion criteria to select documents: (1) studies that use GESI in agriculture and agribusiness, (2) all studies published in peer-reviewed English journals, and (3) documents set as GESI-related to agribusiness and agriculture, both published and unpublished. Excluded articles were unrelated to GESI, gender equity, gender equality, agriculture, women, and youth. The search categories results were refined by selecting

the following 16 categories: (1) gender equity, (2) gender equality, (3) social inclusion, (4) diversity, (5) intersectionality, (6) agribusiness, (7) agriculture, (8) agricultural policy, (9) agricultural value chains, (10) climate change, (11) gender norms, (12) social norms, (13) agency, (14) access to and control over resources, (15) women and youth empowerment, and (16) marginalized and/or disadvantaged groups.

Step 3: Identification

We identified 87 papers related to "GESI in agriculture" and "GESI in agribusiness." Examining them involved a thorough review of titles, abstracts, year of publication, and English language to confirm search accuracy. Based on this process, we eliminated nine papers. No additional searches were conducted. Consequently, 78 articles were identified after refining and using the specified categories on digital databases mentioned in the search terms subsection in Step 1. This was followed by screening by all the co-authors. They were involved in reviewing titles, abstracts, and executive summaries, with more specific terms "Gender Equality,"

"Social Inclusion," "Women and Youth," "Agriculture and Agribusiness," and "Climate Change." In total, 76 relevant papers, including 25 peer-reviewed journal articles, 18 working papers, 16 technical reports, 6 toolkits, 5 websites, 3 books, 2 workshop reports, and 1 strategy document were reviewed. The documents were published between 2000 and 2023 and mainly focused on gender and GESI in agriculture and agribusiness. Notably, we included one document before this timeframe: a book published in 1999, which provided useful information on gender analysis frameworks (see the annex).

Step 4: Screening

Screening involved exporting the citations resulting from the search categories, which were then imported into a Mendeley referencing research manager.

Duplicate articles from cross searches of databases

were eliminated, such as the five articles from WoS. Finally, the 76 documents were thoroughly examined to confirm their relevance to the literature review's subject.

Step 5: Narrative synthesis

Lastly, we conducted a narrative synthesis, a method that systematically reviews and synthesizes findings from multiple studies by primarily relying on textual approaches to summarize and explain the results (Grant & Booth, 2009). This approach applies to systematic reviews covering a broad spectrum of questions, extending beyond evaluating specific interventions to encompass a wide range of topics. It emphasizes a

textual method to craft a narrative that communicates the collective insights of included studies and constructs coherent and comprehensive narratives that integrate key themes and findings to provide a synthesized overview of the GESI issues in Zambia's agribusiness sector.



3. Findings

Given that the review was meant to inform the development of a GESI capacity assessment and development strategy for Zambia's agribusiness network actors, the findings were organized around eight potential GESI core capacities mainly derived from the gender capacity development guide by TI and the ILRI (2016) and the UU Initiative's GESI framework (Nortje et al., 2023) as provided this section.

3.1 GESI principles for identifying specific groups of excluded, vulnerable and marginalized people

GESI principles are essential for identifying and addressing specific groups of excluded and vulnerable individuals within a community, society, or project. These principles guide efforts to promote equity and social justice by recognizing and addressing the unique challenges faced by different groups. Some of the key GESI principles that can support and promote the identification and inclusion of diversity in individuals and groups or collectives in Zambia's agribusiness ecosystem include the following:

- Gender transformational programming:
 - Recognize that gender disparities exist and continue to excerbate exclusion and vulnerability. Ensure that gender and social inclusion perspectives are integrated into all governance structures and institutions, programming, and activities. Identify and address the specific systemic barriers and social institutions that perpetuate and exacerbate inequalities for women, men, and gender-diverse individuals (FAO et al., 2023).
- Intersectionality: Understand that individuals often belong to excluded, disadvantaged, vulnerable, and marginalized groups simultaneously, such as women from ethnic minority communities. Recognize that intersecting identities can compound exclusion and vulnerability, thus need to develop approaches that consider people's unique experiences and needs at the intersection of multiple social identities (Rice et al., 2019).
- **Social inclusion**: Acknowledge that social exclusion occurs based on individual identity

- factors such as age, ethnicity, religion, location, disability, and economic status. Thus need to promote social inclusion by organizing community events, workshops, and awareness campaigns that celebrate diversity. Work to eliminate discrimination, and promote equal participation for all members of the community (GESI Working Group, 2017).
- Inclusive data collection: Collect disaggregated data that captures information about the different groups within the community. Use data to identify patterns of exclusion and vulnerability and guide evidence-based decision-making. Ensure that data collection methods respect cultural sensitivities and individuals' privacy (Doss, 2014).
- **Participatory approaches**: Involve affected groups in the decision-making process and co-designing interventions. Empower community members to voice their concerns and aspirations, ensuring they actively participate in shaping their destinies. Foster a sense of ownership and responsibility among all community members to address exclusion and vulnerability collectively (Rydergaard & Spiers, 2021).
- **Rights-based approach**: Recognize that everyone has rights, regardless of their background. Uphold the principles of gender justice, non-discrimination, and social justice as a foundation for all interventions. Advocate for and protect the human rights of excluded and vulnerable groups (Tschakert & Machado, 2012).

3.1.1 Evidence of GESI principles for identifying specific socially excluded, vulnerable and marginalized people

In box 1, we present an agribusiness case study of goat rearing by a deaf person in Kitwe District of Zambia's Copperbelt Province (Akamandisa et al., 2023) social inclusion and delivering on inclusion and delivering of the SDGs. Despite having legal and policy frameworks in place, Zambia continues to promote GESI while

facing ongoing challenges, especially within its social structures. Deep-seated beliefs, such as considering a lame baby as a curse or a girl's place being confined to the kitchen, contribute to and perpetuate inequalities, especially in the agribusiness ecosystem. Disharmony and legal duality within Zambian laws which conflicts

with traditional practices, further hinder the effective implementation of GESI strategies. Moreover, people with other forms of disabilities face multiple challenges, leading to high poverty levels, as technologies and communication systems often overlook their unique needs.

Box 1. Case study of a deaf livestock farmer in Zambia who was identified using GESI principles

Mr. Frankson Musukwa, a 35-year-old male youth with a hearing disability in Kitwe City, Copperbelt Province, Zambia, is a prominent disability rights advocate and activist. He has overcome various barriers to become a mentor for citizens with disabilities, leading efforts to protect and promote their rights. Mr. Musukwa is not only a young emerging smallholder farmer involved in livestock business but is also the founder and executive director of Zambia Deaf Youth and Women, an organization lobbying for equal rights for deaf youth and women. Additionally, he is the founder and principal of the Jennifer Memorial Special Community School, offering free primary education to 52 deaf and 8 intellectually disabled children.

With qualifications in primary teacher training, a bachelor degree in special education, and a master's degree in international and comparative disability law and policy, Mr. Musukwa has received numerous awards for his contributions to the disability movement. Recognitions include the Open Society Foundations Disability Rights Scholarship, the PEPFAR 2014 Champion title, and the First International

(Source: Akamandisa et al., 2023, pp. 14-17)

Excellence Award from the Indian government. In 2018, he was honored with the President Insignia of Honor by President Edgar Chagwa Lungu for his significant contributions to the disability sector.

In 2019, Mr. Musukwa began rearing goats on his 14-ha farm in Kitwe City. He started with five goats and reached 20 by 2021. After setbacks from theft, his current stock has grown to 13 through breeding. He receives technical support from the Department of Agriculture and the Muslim community, aiming to increase goat numbers and tap into the Kasumbalesa market. Mr. Musukwa has plans to expand into other agribusiness ventures and aims to help change mindsets about disabilities through agriculture, promoting self-sustenance, skills transfer and national food security. He emphasizes the importance of training, supporting, and financing small-scale farmers, particularly those with disabilities, to combat poverty, create wealth and challenge societal perceptions. He recommends that stakeholders urgently allocate resources to support people with disabilities in agriculture, fostering inclusivity and empowerment in Zambia and ESA countries.

3.2 GESI analysis and strategic planning

GESI analysis is a systematic examination of the impacts of intervention projects, programs, policies or initiatives on different gender and social groups within a given population (van Eerdewijk et al., 2021; Adam et al., 2022) through the use of the right GESI analytical tools and frameworks (March et al., 1999). Key questions for GESI analysis entail interrogating various aspects of the gender division of labor, access to and control over resources, access to information and advisory services, and participation in decision-making among others (March et al., 1999). GESI analysis aims to identify and address inequalities and social disparities to ensure that diverse needs, perspectives, and experiences are taken into account to promote social justice, achieve development goals, and build more equitable and inclusive societies (IITA, 2022; UN Women, 2014). A GESI analysis recognizes the importance of promoting not only gender equality but also social inclusion through considering multiple intersecting social

identities such as age, ethnicity, socioeconomic status, disability/ability, and other dimensions of diversity that influence social groups as they interact with marginalizing or empowering structures (Colfer et al., 2018). GESI analysis enables decision-makers to make evidence-based programming, effectively target interventions while ensuring that development efforts benefit all members of society, particularly those marginalized and excluded.

Strategic planning for GESI involves a deliberate and systematic approach to developing plans, actions, and policies that seamlessly integrate both gender equality and social inclusion considerations (GESI Working Group, 2017). This process entails identifying, prioritizing including and consistently incorporating diverse perspectives and needs throughout the planning stages. GESI strategic planning is pivotal for cultivating equality and inclusion, ensuring that

interventions, programs initiatives, and structures account for the varied needs of different gender and social groups, thereby addressing existing inequalities and fostering a more equitable society (Integrity Action, 2016). Integrating GESI considerations not only amplifies the efficacy of initiatives but also facilitates better decision-making through a comprehensive understanding of diverse perspectives. Importantly, GESI aligns with the SDGs, contributing significantly to gender equality, poverty reduction, and social justice (Sachs et al., 2019). Beyond its social impact, promoting GESI through strategic planning catalyzes economic development by unlocking the full potential of societies. Such planning is also indispensable for legal and ethical compliance, mitigating risks, promoting social cohesion, enhancing organizational reputation, and ensuring long-term sustainability by adapting to evolving social dynamics and diverse needs over time (FAO et al., 2023; World Bank, 2018).

In African food systems, women play pivotal roles as producers, contributing to family nutrition and food security and engaging as wage workers, processors, traders and consumers (Njuki et al., 2022). Although women in SSA own one-third of SMEs and are highly active in farming and entrepreneurship, persistent gender gaps in productivity, wages, and entrepreneurial opportunities worsen inequality in the agriculture sector (World Bank, 2018). Nonetheless, SSA is facing a youth bulge, as around 100 million young people are expected to enter the workforce in agriculture by 2030 (Mabiso & Benfica, 2019). However, challenges such as poor access to productive resources, infrastructure, finance, technology and knowledge, as well as low returns from agriculture, all deter youth from engaging in agribusiness. The average age of a farmer in SSA is 60, highlighting the urgent need for youth involvement in the agrifood systems (Nortje et al., 2023). Thus, neglecting GESI analysis in agribusiness interventions hinders the transformation of food insecurity and malnutrition experiences, which affect marginalized women and youth in particular.

The capacity to strategically plan and apply GESI analytical tools in Zambia is of utmost importance for several reasons. Firstly, these tools facilitate evidence-based decision-making by providing valuable insights into the impact of policies, programs, and projects on diverse societal groups (Rydergaard & Spiers, 2021). This capacity enables decision-makers to make informed choices based on data, ensuring interventions are tailored to address specific needs and challenges. Secondly, GESI analysis helps identify disparities within communities, allowing organizations and governments to design targeted interventions and making initiatives more efficient (Njuki et al., 2022). Thirdly, the capacity to use GESI tools allows users

to monitor and evaluate the progress of initiatives, ensuring effectiveness and highlighting areas for improvement (GESI Working Group, 2017). Applying GESI analytical tools demonstrates a commitment to transparency, equity, and accountability, enhancing legitimacy and building stakeholder trust. Compliance with legal and ethical standards is ensured, reducing the risk of legal or reputational issues (Tamang, 2022). Moreover, a GESI-informed approach encourages a diversity of perspectives, leading to more innovative solutions to complex problems (Tamang, 2022). Such approaches foster greater stakeholder engagement, allowing different groups to participate in planning and implementation, ensuring their voices are heard (Asian Development Bank, 2022). Lastly, GESI analysis helps build more sustainable and resilient societies by addressing inequalities and promoting social inclusion (Grant et al., 2023).

GESI programming involves addressing complex barriers, demanding transformative changes in policies, technology, financing priorities, and the behavior of key stakeholders from the public, private, and civil society sectors (Apondi et al., 2023; Farnworth et al., 2018). Recognizing environmental and social challenges in the future of agribusiness in ESA, the UU GESI team adopted the Reach-Benefit-Empower-Transform (RBET) framework, as well as the gendered agrifood systems framework (Njuki et al., 2022), which guides UU researchers and partners in designing, financing, and implementing agribusiness innovations. It addresses intersecting inequalities and facilitates a shift in structural and systemic barriers for inclusive economic empowerment. The RBET framework outlines a GESIoriented suite of interventions for women and youth in agribusiness, focusing on four dimensions:

- 1. **REACH**: Target women and youth from marginalized groups through specific agribusiness entry points.
- 2. **BENEFIT**: Implement initiatives to strengthen capacities, offering skills, targeted knowledge, financing, and opportunities. Enable women to shift from unpaid agricultural roles, and enhance agency and recognition for youth in agriculture.
- EMPOWER: Scale interventions addressing rights, equity, agency, and recognition to reduce gender tensions and social exclusions for women and youth as pivotal figures in the future of agribusiness.
- 4. **TRANSFORM**: Scale agricultural interventions not just to empower women but to alter gender norms and attitudes. This involves addressing structural and institutional barriers, mobilizing collective power, and engaging both women and men in decision-making at the household and societal levels.

Box 2 contains a case study that showcases an evidence-based gendered agrifood systems framework for analyzing the diversity and complexity of gendered inequalities in food systems.

Box 2. Application of a gendered agrifood systems framework for analyzing inequalities in agribusiness

In 2022 and early 2023, UU WP5 and Solidaridad conducted consultations and case studies in Kenya, Zambia, Zimbabwe, and Ethiopia with 100 women and 22 young agribusiness entrepreneurs, along with stakeholders at local and national levels. The goal was to identify barriers and opportunities for inclusive agribusiness, forming the baseline for targeted GESI interventions by the UU Initiative. Data analysis revealed diverse inequalities, emphasizing the need for targeted interventions to address key barriers for transformative change in agribusiness. The diversity of gender and social inequalities manifest at individual and systemic levels, in both formal and informal aspects of agribusiness, as put forth by Njuki et al. (2022). They were characterized as follows:

Consciousness/capabilities:

- Gendered norms entail expectations for women and youth to defer decision-making to elder men, particularly in investments.
- There is a lack of targeted support, peers, and role models, especially for marginalized groups.
- This is also a lack of knowhow for women and youth in agribusiness, understanding value chains, accessing credit, and navigating markets.

Institutionalized cultural norms and exclusionary practices:

 Unpaid domestic and care work hinders women and young girls from engaging in profitable livelihoods such as agribusiness.

(Source: Nortje et al., 2023, pp. 10-13)

 Masculinity and patriarchal lineage prevent women from challenging poor decisions and behaviors of men.

Lack of access to productive resources:

- Patriarchal access to productive land due to masculine inheritance cultures negatively impacts women and young girls.
- Intrahousehold disparities, including lack of education, information, infrastructure, and capital, limit access to credit.
- Limited knowledge, institutional support, and capital hinder women from adopting innovative technologies in agribusiness.

Ineffective statutory laws and policies:

- In gendered agribusiness value chains, women are primarily involved in production, with limited engagement further along the value chain.
- Market challenges, including poor connectivity, mobility, and gendered norms, restrict women from accessing higher-paying markets/platforms.

Nortje et al. (2023) notes that poor implementation of gender-aware policies and strategies is evident, with institutional stakeholders lacking the capacity to address gendered inequalities.

Advancements in developing and using GESI analytical frameworks and strategic planning tools showcase progress in understanding and addressing diverse needs, disparities, and social dynamics across various populations. Such frameworks and tools aid in comprehensive assessments, strategic planning, and implementing initiatives that promote equity and inclusivity in various sectors, contributing to more effective and targeted development efforts. Other examples include the following:

 The global GESI analysis tool by Rydergaard and Spiers (2021) that seeks to promote gender equality and diversity through the application of research, learning, and data to bring about systemic change and shift power dynamics in

- shaping development agendas and decision-making processes.
- The framework of van Eerdewijk et al. (2021) on the intersection of GESI and climate change adaptation evaluates best practices, identifies gaps, and guides the effective integration of GESI into climate change resilience, particularly in program and research design.
- A common framework for gender equality and social inclusion by GESI Working Group (2017) which helps to build a common understanding between development partners (DPs) in the global South. Various organizations have also developed strategies, toolkits and guidance notes to mainstream and integrate GESI into their programming.

3.3 Effective partnerships, collaboration and advocacy in promoting GESI considerations in agribusiness

Partnerships, coalitions and networks play a crucial role in addressing complex global challenges, offering a strategic response to intricate complex problems. Collaborations allow partners to leverage each other's strengths, achieve collective goals and catalyze transformative change, particularly in advancing gender equality and contributing to the 17th SDG on partnerships for the goals (Sachs et al., 2019). The effectiveness of these collaborations relies on a robust capacity to build partnerships, forming the cornerstone of successful advocacy efforts that involve diverse voices coming together to amplify impact and create a unified front in addressing GESI-related challenges (GESI Working Group, 2017). It includes influencing government policies and engaging external partners such as non-governmental organizations (NGOs), the private sector, and international agencies (Grant et al., 2023). Advocacy requires a profound understanding of GESI issues and effective communication strategies to raise awareness, challenge stereotypes, and promote a nuanced understanding of GESI-related concerns (TI and ILRI, 2016). Successful advocacy creates an enabling environment for implementing genderresponsive policies by navigating societal norms, challenging discriminatory practices, and championing legislative changes (UN Women, 2014).

Partnerships and advocacy are dynamic processes that adapt to the evolving nature of GESI-related challenges (Nortje et al., 2023). A proactive stance involves continuous learning, staying abreast of emerging issues, and adapting strategies to address new obstacles to equality. By fostering partnerships and advocating for gender equality, there is the dual benefit of paving the way for more inclusive societies and realizing the SDGs. The transformative nature of the collaborative

partnership approach shifts beneficiaries from recipients to active partners in the development process. True partnerships which are characterized by voluntary collaboration and optimized resource allocation, are vehicles for progressing sustainable development outcomes (FAO et al., 2015). Sustained achievement of mutually beneficial results and the creation of links beyond individual efforts enhance the overall resources, scale, and impact of collaborative initiatives. By embodying a commitment to collective growth, such partnerships become catalysts for positive change, emphasizing cooperation and shared responsibility in sustainable development (Castellanos et al., 2022).

Partnerships, collaboration and advocacy play a crucial role in promoting GESI considerations within agribusiness in Zambia. Fostering alliances between various stakeholders, including governmental bodies, NGOs, businesses, and local communities, can develop a holistic approach to address the diverse needs and challenges faced by different genders and socially marginalized groups in the agribusiness sector (Muthui & Woodhill, 2023). Collaborative efforts enable them to share knowledge, resources and expertise, fostering sustainable practices and equitable opportunities (Woodhill, 2016). Advocacy becomes essential in raising awareness about the importance of GESI considerations, influencing policies and dismantling barriers that hinder inclusive participation in agribusiness (Rydergaard & Spiers, 2021). The success of such initiatives relies on the collective commitment to create an enabling environment that empowers all individuals, irrespective of gender or social background, to actively contribute to and benefit from the growth and development of the agribusiness sector in the region.

3.3.1 Collaboration with international and local organizations

International research on development partnerships indicates persistent problems, particularly in the neglect of power imbalances and in some cases, the exacerbation of such disparities (Roche et al., 2015). Partnership arrangements between international and local organizations often conceal power dynamics, restricting the ability of local partners to influence the fundamental approach and purpose of the relationship (Grant et al., 2023). Effective international and local collaborations and partnerships can offer diverse

benefits such as access to global and regional political processes, organizational legitimacy and tangible and intangible resources. However, realizing these advantages hinges on a meaningful and deliberate consideration of power dynamics between the partners. Current discourses indicate the need for approaches to agreements and working arrangements that foster the emergence of local solutions that are socially and politically acceptable and technically feasible within specific contexts. This implies that international

organizations and donors should embrace partners "as they are" and collaborate on finding a "good fit" with locally driven change, prioritizing it over the unsuitable imposition of foreign "best practices" (Roche et al., 2015: 63). This approach represents an important

shift from what has been increasingly transactional or contractual approaches to managing partnerships in recent years and can provide more respectful and diverse engagements.

3.3.2 Evidence of effective partnerships and collaborations promoting GESI considerations

In box 3, we present an agribusiness case study on cassava commercialization for the economic empowerment of women and youth in Northern Province, based on collaboration and partnership between a local company and women and youth smallholders. Cassava is the second-most crucial staple food in Zambia, after maize. It is primarily cultivated in five provinces: Luapula, Northern, Muchinga, Northwestern, and Western. Recently, the cassava sector has had increased investment, driven by its expanding use in the industrial sector. Both the government

and the private sector are actively involved in commercializing the cassava value chain, with industrial applications ranging from ethanol and starch to biofuels, animal feeds, beer, and fertilizer (Akamandisa et al., 2023). The demand for cassava processing has been estimated at 850 metric tonnes per day to sustain all the cassava processing plants and some industrial plants support out-grower schemes in specific regions of Zambia to commercialize cassava production.



Box 3. Local company partners with smallholder farmers to empower women and youth in Northern Province, Zambia

Itabwa investments, a corporate social responsibility practitioner based in Kasama District of Northern Province, is dedicated to leveraging the abundant natural resources in northern Zambia to alleviate endemic poverty. Originally established in Kaputa District in 2018, the company relocated to Kasama in 2021 following the commissioning of a cassava milling plant. Itabwa Investments plays a vital role in the community by providing disease-resistant, high-yielding cassava seeds to rural smallholder farmers, along with tillage, aggregation services, and value addition. The company is actively involved in commercializing the cassava value chain in parts of Luapula and Northern provinces. It has established commercial market links for produce from smallholder farmers. Its primary focus is on processing cassava into dried cassava chips and highquality cassava flour, which are its two main products, and it caters to both industrial and household consumption.

Over the past decade, cassava has become a key commercial crop because of its versatile industrial uses, providing income opportunities for thousands of smallholder farmers in rural Zambia. Traditionally considered a "poor person's crop," cassava's increased demand and profitability have earned it the nickname "white gold."

A crucial aspect of Itabwa investments' strategy is including women and youth in cassava out-grower schemes and training programs, as both groups face limited job opportunities in rural Zambia. Through collaborations with stakeholders like Musika Development Initiatives and the Citizens Economic

(Source: Akamandisa et al., 2023, pp. 8-10)

Empowerment Commission, over 4,800 farmers supplying dried cassava to the Kasama plant have been registered and trained. Additionally, at least 400 farmers are part of Itabwa investments' cassava out-grower scheme, which facilitates mechanization to boost production and connects farmers to commercial markets.

Despite operational challenges in remote areas, Itabwa investments has positioned itself as a principal cassava purchaser, often the sole buyer in some high-production rural areas. The company absorbs operational costs associated with transporting cassava from mobile storage centers to processors in Mkushi District, Lusaka City, and Copperbelt Province. The out-grower and aggregation scheme prioritizes women farmers, with 2,600 registered, representing 54 percent of the total. Plans were underway to increase this number to 5,000 by the end of 2023. Traditional authorities actively participating in the commercialization process empower women with land allocations, and those in the out-grower scheme receive input support with costs recovered upon cassava delivery to the milling plant.

Over 60 percent of the cassava processed at the plant is exclusively sourced from women farmers under the cassava out-grower scheme. The plant, with a 30 metric tonnes daily capacity, operates below its full potential because of low cassava productivity. Promoting cassava out-grower schemes aims to increase production and productivity, with extension and advisory services provided by the Department of Agriculture and institutions like IITA, which trains youth associated with Itabwa investments.

3.4 GESI-responsive programming, budgeting, and implementation

Financial commitment to GESI is a cornerstone for integrating it into the core operations of any agricultural interventions (GESI Working Group, 2017). It symbolizes the conscious allocation of available resources to uphold the principles of GESI, thus demonstrating the prioritization and dedication to promoting social justice. In the design and implementation of programs and projects, it is imperative to acknowledge that individuals' capabilities, interests and needs vary significantly based on factors such as gender, caste,

ethnicity, and location among others (UN Women, 2014). These contextual differences demand a nuanced and adaptable approach. By recognizing and responding to these variations, organizations can ensure that their interventions effectively address the diverse needs of the target populations.

Although targeted interventions are essential in the short term, the goal should be to mainstream these practices into national programs. This transition from

targeted to national interventions signifies a significant step forward in achieving sustainable GESI outcomes (GESI Working Group, 2017). By incorporating these inclusive practices into standard program frameworks, organizations can create a more equitable and just society that benefits all its members, regardless of their background or circumstances. The journey from adaptation to mainstreaming exemplifies a commitment to promoting equality and social inclusion as an integral part of the organization's mission (Mapedza

et al., 2023). The aim is to make mainstream programs genuinely "universal" by dismantling the obstacles that disproportionately affect women, impoverished individuals, and marginalized populations. This calls for a two-pronged strategy: (1) embedding GESI principles within standard programs and projects, and (2) launching GESI-specific initiatives to cater to excluded and vulnerable groups when necessary (GESI Working Group, 2017, p. 24).

3.5 Knowledge management and GESI-responsive monitoring, evaluation and learning

Knowledge management is fundamental for effective GESI programming. It ensures that programs are evidence-based, responsive to the needs of marginalized and excluded groups, and adaptable to changing circumstances (GESI Working Group, 2017). This review takes cognizance of the existing and diverse bodies of knowledge on GESI and agribusiness and advocates for the co-production of knowledge that is representative of both indigenous and scientific knowledge, voice, and epistemologies through transdisciplinary approaches (Schneider et al., 2019). This can facilitate continuous co-learning, informed decision-making, accountability and knowledge management enhances the impact and sustainability of GESI efforts. The following nine features of knowledge management could support Zambia's agribusiness ecosystem:

- Informed decision-making: Knowledge management ensures that GESI programs are grounded in accurate, up-to-date information, empowering decision-makers to make informed choices regarding program design, resource allocation, and implementation strategies (Schneider et al., 2019).
- Co-learning: GESI is a dynamic field with knowledge management system that captures lessons learned, best practices, and emerging trends so that organizations can adapt and enhance their GESI initiatives over time (GESI Working Group, 2017).
- 3. **Effective resource allocation**: Knowledge management facilitates targeted resource allocation for GESI programming by identifying the specific needs of marginalized groups, and ensuring resources are directed where they are most needed (Royal Tropical Institute [KIT] et al., 2012).

- 4. **Evidence-based approaches**: By promoting evidence-based decision-making, knowledge management gathers data on the impacts of GESI programs, allowing organizations to refine and scale successful interventions (GESI Working Group, 2017).
- Stakeholder engagement: Effective knowledge management involves engaging diverse stakeholders, including marginalized communities, to incorporate their voices, experiences, and perspectives into program design and evaluation (KIT et al., 2012).
- Monitoring, evaluation and learning: Knowledge management supports robust systems for MEL that are crucial for tracking progress, measuring impact, and identifying areas for improvement in GESI programming (GESI Working Group, 2017).
- 7. **Capacity building**: Facilitating knowledge and expertise sharing and knowledge management enables capacity building in GESI within organizations and among partners, ensuring stakeholders are well informed and equipped to address challenges effectively (FAO, 2011).
- 8. **Transparency and accountability**: By making information and data accessible, knowledge management promotes transparency, enhances accountability as stakeholders can track progress and assess outcomes, and holds organizations and governments accountable for GESI commitments.
- 9. **Cross-sector collaboration**: Encouraging collaboration and knowledge sharing, knowledge management fosters synergies across sectors and organizations working on GESI, reducing duplication of efforts and amplifying the impact of GESI initiatives (GESI Working Group, 2017).

Conducting MEL with a GESI lens plays a pivotal role in successful programming, fostering accountability, informing decision-making, promoting transparency, and enabling adaptive management. Adherence to a theory of change framework, initially focusing on individual assessments is crucial. This involves evaluating changes in relevant groups' assets, income, human development outcomes, access to services and their ability to voice concerns and influence decisions (Tamang, 2022). The assessment should collect both quantitative and qualitative data.

For Zambia's agribusiness ecosystem, GESI programming should prioritize disaggregated data collection, monitoring and reporting while considering factors such as poverty, gender, age, ethnicity, location, and other project-specific categories. Inclusive monitoring and evaluation teams, including women and individuals from excluded communities, are

essential. (GESI Working Group, 2017). Moreover, it is important to monitor system changes, such as informal behaviors and formal policies and structures. Collecting disaggregated qualitative and quantitative data to assess outcomes should involve engagement with community members, including those experiencing exclusion, representative organizations, and stakeholders (Integrity Action, 2016). The MEL process should emphasize both the outcomes/results and the implementation process, considering the "what," "how," and "with whom" from a GESI perspective (van Eerdewijk et al., 2021). This comprehensive approach ensures an effective assessment of project impact and inclusiveness. Box 4 presents a case study by the International Fund for Agricultural Development (IFAD) on evidence of GESI responsive knowledge management.

Box 4. Case study by IFAD on gender and knowledge management

IFAD's regional grant for Knowledge Management and Learning on Gender Empowerment of Producer Rural Groups in ESA was implemented by AGRA, which capitalizes on the momentum created by the Rural Women's Leadership Programme. The objective of the initiative was to bridge the gap between the voices of rural women in decision-making and their substantial contribution to agriculture and rural livelihoods by supporting women's increased representation in producer organizations (POs) in Malawi, Uganda, and Tanzania. The initiative had three main strategies:

 Advance gender learning among IFAD and AGRA partner organizations through knowledge sharing, lessons learned, and policy dialogue on women's economic empowerment in POs, food security, and poverty reduction. This strategy had a significant bearing on the other two strategies.

(Source: FAO et al., 2015, pp. 51-52)

- Strengthen women's leadership capacities and decision-making skills in POs to increase their influence and participation at the local, national, and regional levels.
- 3. Build rural women's entrepreneurial skills through training and other innovative learning methods.

In 2013, AGRA conducted a gender and social needs assessment in Malawi and Zambia that identified a range of factors that contribute to the challenges for women's participation in POs. This included lack of skills in production and operations management, and poor leadership capacity, with impacts on group membership. The results of the assessment were shared among stakeholders at all levels, from decision-makers at the policy level to service providers, informing the development of specific capacity-building and training interventions.

3.6 Leadership in GESI

Leadership is a tool for driving societal change, involving key roles in shaping reforms. Leadership is defined as a tool for driving societal change involving key roles in shaping reforms (FAO et al., 2015). Accordingly, the World Bank emphasizes three dimensions of inclusive leadership:

- 1. **Vision**: Leaders should transform a vision into reality by engaging various constituencies to create a shared vision of the future, identifying challenges, and instigating change.
- 2. **Effectiveness**: Leaders need technical and managerial skills to diagnose problems, prioritize

challenges, find solutions, mobilize stakeholders, and implement governance strategies for more effective institutions.

3. **Integrity**: Leaders must embody values and serve as role models, committing to the public good, personifying individual and professional ethics, and championing accountability relationships that foster mutual trust in institutions, communities, and society.

In the agribusiness and agricultural sector globally, women are pivotal with making indispensable contributions to various facets such as participating in production and trade, ensuring food security and fostering income generation. However women's roles in agribusiness vary across regions, constituting over 50 percent of most SSA contexts. The expansion of women's roles in agriculture is driven by global trends such as men's migration to cities and seasonal migration, a phenomenon commonly known as the "feminization of agriculture" (Bikketi et al., 2016, p. 3). Despite their significant contributions to agrifood systems, their roles remain largely unrecognized, and their voices and concerns are often unheard at the local, national, and global levels (Njuki et al., 2022). The scarcity of women in leadership positions hinders their representation and input in decision-making processes, leading to negative consequences. According to FAO et al. (2015, p. 11), this is known as "the voice gap: participation without representation."

Women and youth leadership is a fundamental driver of change in the realm of GESI. Strong and committed women and youth leaders can shape the narrative towards fostering inclusive environments thus driving the transformation that is necessary to create a more equitable and just society. (CARE International, 2016). They can catalyze positive and sustainable change, ensuring that GESI principles are not just words on paper but tangible realities in our communities and institutions. In agribusiness, value chain development strategies, when approached with a pro-poor inclusive perspective, offer a systematic method for identifying production opportunities and constraints (KIT et al., 2012). Integrating GESI leadership goals into value chain upgrading has the potential to enhance performance and ensure equitable distribution of added value among stakeholders, including women and men. By using a GESI lens to analyze the value chains, projects can identify gender-based divisions of activities and address power relations, thereby improving gender equity and inclusivity and leadership. This approach raises awareness of gender roles and distribution of benefits, promoting women's economic empowerment. Equitably distributing benefits and workloads in value chain interventions offers women and other disadvantages social groups opportunities for leadership, recognition, and enhanced social status among stakeholders.



3.6.1 Evidence of enhancing women's leadership in value chains

Box 5 presents a case study a case study by FAO et al. (2015) with compelling argument for addressing gender disparities in the fishery sector. The findings are drawn from case studies from various SSA regions

highlighting women's predominant roles in processing and marketing, outnumbering men in both large-scale marine fisheries (66 percent) and small-scale inland fisheries (54 percent).

Box 5. Case study on the good practice policies for addressing gender inequalities in fish value chains

In 2015, FAO analyzed the challenges that women face in the fisheries sector, such as the lack of attention to women's roles in the sector, with policies focusing on capture, production, and marketing rather than post-harvest and processing activities. This gap limited women's access to resources, infrastructure, and economic opportunities, which had a bearing on the underperformance of the fishery value chain. The report includes examples of FAO programs such as the Sustainable Fisheries Livelihoods Programme in Chad, Gambia, Niger, and Nigeria, showcasing how FAO addressed the

challenges by combining its support for women's participation and leadership in fisher organizations with relevant training in income-generating activities. FAO's projects have strengthened the negotiating power of women in fishery value chains, increased their engagement in productive activities that are traditionally dominated by men, while enabling them to gain respect within organizations and from value chain stakeholders. Women's expanded access to resources, infrastructure and economic opportunities ultimately improved the sector's overall performance.

(Source: FAO et al., 2015, p.47)

3.7 Inclusive scaling of agricultural and climatesmart innovations

Development, academic, and professional interests in how innovations spread in communities have a historical trajectory, going back to the work on adopting and diffusing innovations (Sartas et al., 2020). Currently, the contemporary process of spreading innovations is commonly referred to as "scaling" and has attracted many buzzwords, such as "upscaling," "multiplying scale," "scaling up," and "scaling out," among others (Moore et al., 2015:74). All innovations, encompassing agricultural technologies, products, services, and various practices, extend beyond their original design and testing group through scaling. Thus, scaling is of principal importance in the global context of investing in AR4D to address complex societal challenges in agriculture, agribusiness, and the environment towards attainment of the SDGs (Sartas et al., 2020). This is done by showcasing to donors and partners that the research innovations products and services are not only successful but also adopted widely in society, providing a tangible and intangible returns on investment (Rydergaard & Spiers, 2021).

Practical experience reveals that achieving widespread impact is more intricate and challenging than initially envisioned in intervention proposals (Gebreyes et al., 2021). The initial notion was that intermediaries and change agents could effortlessly transfer innovations and then diffuse them within communities of individual beneficiaries, but this has proven to be overly optimistic (Moore et al., 2015). The development of scalable innovations depends on conducive interactions in multistakeholder networks, which must be contextspecific (McGuire et al., 2022). In the pursuit of sustainable development, the need for inclusive approaches that prioritize GESI in scaling interventions has become increasingly apparent. According to Gebreyes et al. (2021), creating a narrative around the capacity to develop inclusive scaling of GESI innovations involves recognizing the multifaceted nature of challenges faced by diverse populations and the commitment to fostering solutions that leave no one behind. At the heart of this narrative is the acknowledgement that genuine gender equity and inclusivity go beyond token gestures and necessitate a deep understanding of the unique barriers faced by

different genders and marginalized groups (Gebreyes et al., 2021). It begins with a commitment to building the capacity of individuals and organizations involved in development initiatives.

GESI plays a pivotal role in shaping innovation and scaling processes, with substantial impacts on adoption rates, particularly among women and marginalized populations (Petesch et al., 2018; McGuire et al., 2022). Women often adopt innovations at lower rates because of restricted access to key resources such as land, financial credit, capital, social networks, and agricultural information. Systemic issues, including technologies and innovations designed primarily for men as well as cultural perceptions of social norms and gender roles. This contributes to discrepancies in adopting and using innovations such as digital agtechs and agricultural mechanization, which are predominantly operated by men with limited access to high-end technology controlled by the male head of household (Ragasa et al., 2013). To understand the heterogeneous nature of adopting innovations, it is crucial to recognize the diverse landscape of smallholders and regional stakeholders, which vary agroecologically and socioculturally (Moore et al., 2015). Collectives or

groups exhibit disparities in dimensions like wealth, employment, location, or religion, influencing how benefits from innovations are distributed. Gender emerges as a critical dimension, intersecting with other multiple social identities and creating distinct experiences for women and men within the same social group (Njuki et al., 2022). Intersectionality⁵ becomes particularly significant when assessing an innovation's impact on the excluded (disadvantaged, vulnerable, and marginalized) communities. Addressing these complexities is essential in AR4D projects, where interventions tailored for specific sub-groups often fall short because of unforeseen issues with the innovation, leading to potential harm to certain groups (Galiè et al., 2017). A nuanced understanding of how gender, social identity, and other intersecting factors shape innovation adoption is vital for designing effective and inclusive interventions that truly benefit all segments of the population. Parameters to consider while scaling interventions include effectiveness and impact, adaptability and resource availability, community engagement, community ownership, partnership and collaboration, policy alignment, and technology and innovation (McGuire et al., 2022; Gebreyes et al., 2021).

https://www.genderupforscaling.org/



3.7.1 Evidence of inclusive scaling of agricultural innovations

In Box 6, we present a case study from the GenderUP⁶ website on the inclusive scaling of innovations in South Nigeria to promote gender in agricultural mechanization.

Box 6. A case study of smoke-reducing gari fryers to address health concerns in cassava processing by women in South Nigeria

Agricultural interventions, particularly in mechanization processes, have historically focused on efficiency and quality, often overlooking the socioeconomic and gendered contexts in which they operate. Gender studies within the Cassava: Adding Value for Africa project in Nigeria reveal distinct roles of women and men in different cassava value chains, leading to diverse needs and priorities. In cassava processing, especially in *gari* production, women often face challenges related to exposure to harmful smoke.

Although smoke-reducing *gari* fryers have been developed to address health concerns and potentially enhance productivity, their uptake is limited. Women, who predominantly engage in cassava processing, encounter barriers in accessing this technology. The reluctance of male facility

(Source: Kiwarazuka et al., 2018, p. 2)

owners, who control the processing centers, to invest in new equipment poses a challenge. Additionally, limited awareness among facility owners and processors hinders the adoption of these fryers.

This example underscores the significance of recognizing gender constraints, needs, and priorities within local contexts and value chains when disseminating and adopting agricultural technologies. Moving forward, practical initiatives should consider targeted, small-scale adaptations for processing mechanization that are accessible to women independently. Such efforts aim to alleviate women's labor burden and reduce exposure to health hazards, thereby promoting gender-inclusive and sustainable technological interventions in agriculture.

3.8 Innovations in GESI-transformative approaches

Gender transformative approaches (GTAs) aim to raise awareness among individuals, including men, women, and youth, regarding existing gender roles and norms and to actively empower women and youth by challenging traditional resource allocation systems, redistributing responsibilities among genders, and addressing power dynamics within communities (FAO et al., 2023). As such, GTAs distinguish themselves from many other gender-related approaches in development by not merely tackling the symptoms of gender-based inequality but, instead, focusing on addressing its fundamental root causes (Poulsen, 2018).

Achieving gendered transformative change in agriculture requires a multifaceted approach, as highlighted by Kantor et al. (2015) and Poulsen (2018). Kantor et al. (2015) emphasize the necessity for rigorous participatory analysis to comprehend the intricate interplay of social norms, values, and

power relationships in shaping gender roles within the agricultural sector. They delve into societal expectations for both women and men, examining how these expectations become ingrained in aspects like market dynamics, family structures, community dynamics and state policies. Poulsen (2018) highlights the importance of involving both genders in gender-transformative change, challenging simplistic views that portray men solely as authorities or oppressors. Accordingly, GTAs seek to involve men purposefully, recognizing their nuanced relationships with women and positioning them as active agents of change and operating across various scales, targeting the individual, family, community, organizational, institutional, and macro levels (Poulsen, 2018). At the individual level, GTAs aim to foster shifts in knowledge, skills, attitudes, agency, and actions, while efforts at the family, community, and organizational levels focus on dismantling embedded gendered expectations. Recognizing unequal power

6 https://gender.cgiar.org/publications/gender-agricultural-mechanization-key-guiding-questions

relations as a root cause of gender inequality, GTAs aim to address these issues directly, promoting critical questioning and eventual changes in norms, attitudes, and institutionalized rules that sustain gender disparities. Furthermore, GTAs emphasize an ongoing commitment to iterative cycles of critical reflection and action. This necessitates collaboration with community members and stakeholders to comprehend the evolving social context and challenge gender norms and power relations in various domains, including resources, markets, and technologies.

In Zambia's agrifood systems, women and youth encounter substantial gender inequalities and social exclusion in accessing and controlling productive resources, including land, credit, agro-advisory and extension services, and earnings from SMEs. Recognizing and addressing the root causes of these disparities is crucial (Weeratunge et al., 2010). Understanding the influential roles played by gender,

social norms, and power relations in determining resource access is vital (Cole et al., 2015).

Basic gender analyses, while identifying differences, often fall short of addressing the social institutions responsible for creating and perpetuating these differences (Njuki, 2017). These institutions operate at various levels, from households and communities to broader structural entities like markets and the state, influencing power dynamics and disproportionately affecting livelihood options and well-being outcomes (Hillenbrand et al., 2014). GTAs are rooted in a social relations framework (Hillenbrand et al., 2014), and they operate within the context of women's empowerment, aiming to enhance their capacity for strategic life choices (Kabeer, 2002). GTAs focus on challenging foundational gender inequalities and restrictive intergenerational norms, simultaneously amplifying women's voices while granting them more control over their lives and futures (van Eerdewijk et al., 2017).

3.8.1 GESI-transformative programming and implementation

A GTA is a proactive strategy that delves into challenges and transforms the systemic causes of gender inequalities ingrained in discriminatory social institutions (FAO et al., 2023). It specifically targets the unequal power dynamics and discriminatory norms, attitudes, behaviors, and practices, as well as policies and laws that either create or sustain gender disparities (IFAD, 2022). Its overarching goal is to eliminate systemic forms of gender-based discrimination by fostering or reinforcing equitable gender relations and supportive social institutions that promote gender equality.

The essence of a GTA lies in its insistence that genuine change must originate from within the communities and societies where transformation is sought, rejecting external imposition by development or research entities (FAO et al., 2023). This requires establishing processes that capture insider perspectives, ensuring their incorporation in the development of both qualitative and quantitative indicators, tools and methods (Njuki et al., 2022). In this context, the role of research or development actors is to support existing gender transformative change processes or to catalyze and facilitate these processes collaboratively with local individuals, including women and men, and relevant stakeholders (Farnworth et al., 2018). Achieving this demands a nuanced comprehension of the people and

the context, recognizing that the specific processes and indicators will vary across locations.

At the core of evaluating the depth and sustainability of gender transformative change is the recognition that such shifts must occur in discriminatory social institutions and entrenched power imbalances (Hillenbrand et al., 2014). Social institutions, acting as the systemic causes of gender inequality, perpetuate a circular and reinforcing process of unequal power dynamics between women and men (Kabeer, 2002). These institutions encompass both formal and informal rules and norms that shape social, political, and economic relations, often described as the underlying rules of the game (Carter, 2015). The transformation of these social institutions toward achieving GESI promotes cooperative power dynamics and relationships, validating individuals' capabilities, aspirations, critical awareness, and dignity (FAO et al., 2023). The various forms of power involved are intricately linked to the individual and collective agency, representing the core of the empowerment process (van Eerdewijk et al., 2017). In broad terms, gender transformative change can be conceptualized as a process encompassing the key dimensions of agency, power relations, and social institutions, as shown in Figure 1.

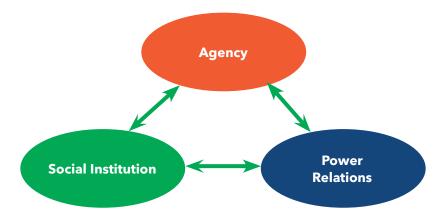


Figure 1. Key dimensions of gender transformative change

(Source: FAO et al., 2023)

3.8.2 Evidence of gender transformative innovations

According to FAO et al. (2023), GTAs show promise in changing norms. A good example is showcased in the use of localized interventions that have proven successful at addressing multiple inequalities to close gender gaps and empower women in agrifood systems, as these interventions have been carefully scaled up taking into consideration the local context. The strategy of reaching scale was underscored as essential for bringing about substantial benefits for women's wellbeing, contributing significantly to economic growth and enhancing food security. A poultry project in Kenya proved that mobilizing various stakeholders and coordinating efforts at a larger scale can create a more inclusive and equitable agrifood system. Training young women to inspect the health status of local chickens serves as a visual representation of the hands-on involvement of women in agriculture. It emphasizes the importance of empowering women at the grassroots level for sustainable and impactful change in the agrifood system.

Another example is the use of the gender action learning system (GALS) pioneered by Mayoux in 2008 to transform gender relations in various arenas (Poulsen, 2018). GALS has three main elements:

- Individual life and livelihood planning:
 Women and men develop visions for changing gender relations and improving livelihoods.
 They plan actionable steps to move toward these envisioned changes.
- 2. Institutional awareness-raising and changing power relationships:
 - Tools from individual life and livelihood planning are used for staff reflection and learning.

- Respect for the views and interests of poor women and men are increased within institutions.
- Established attitudes and behaviors within these institutions are challenged.
- 3. Collective action and gender advocacy for change: Women and men share individual strategies. Thereafter, Individual strategies are combined to form collective strategies. These collective strategies are then linked to participatory decision-making in governments and development agencies.

The GALS methodology includes activities like "Diamond Dreams," where a facilitator prompts women and men to discuss their perceptions of gender roles rooted in religion, culture, and socialization (Poulsen, 2018, p. 5). Roleplays on topics like property ownership, division of labor, and domestic violence follow these discussions. Another activity, the "Challenge Action Tree," involves participants analyzing the root causes of gender inequities, proposing solutions, and making commitments to enhance gender equity in personal and professional lives (Poulsen, 2018, p. 5). In Uganda, the GALS methodology demonstrated positive outcomes in the coffee value chain. Stakeholders observed significant changes in the gendered division of domestic and farm work, household decisionmaking and asset control, and reductions in alcohol abuse and violence. Vulnerable women and men improved their positions in the coffee value chain, while women advancing to larger-scale bulking and trading, and democratic decision-making processes within organizations were enhanced (Poulsen, 2018).

3.8.3 Employing knowledge of the gender action learning system in facilitating the development of innovations that promote GESI activities

The GALS approach empowers women, men, and youth to lead more fulfilling lives. It employs simple mapping and diagram tools for visioning and planning. GALS is a catalyst for change, typically spanning two to three years and built on a foundation of principles, tools, and stages (IFAD, 2022, p. 6). A key component includes a peer replication structure and integration into specific GESI project interventions. Farnworth et al. (2018) posit that household models, particularly exemplified by GALS, are constructed with a visionary approach. They incorporate a gendered analysis of strengths, weaknesses, opportunities and threats; an actionable plan and measurable indicators. These visuals enable direct intervention in intrahousehold gender relations, enhancing overall smallholder agency and efficacy as economic agents and development actors (Farnworth et al., 2018). The emphasis on strengthening women's agency within these models emerges as a crucial mechanism for advancing collaborative and systemic farm management. This approach recognizes that empowering women within households is integral to fostering a more inclusive and effective agricultural landscape.

According to IFAD (2022, p. 6), GALS is premised on the following six principles, which inspire and guide its implementation:

- Gender justice: GALS strives to address the interests of both women and men equally in the pursuit of gender justice, recognizing women's nonnegotiable human rights. It promotes women as agents of development, not victims.
- 2. **Inclusion**: Grounded in principles of inclusion, human rights, equity, and respect for differences,

GALS seeks to encompass those in poverty and marginalized communities.

- 3. **Leadership potential**: Regardless of education, age, gender identity, or economic status, GALS emphasizes that anyone can be a leader, nurturing the leadership potential of all participants and supporting the most vulnerable.
- 4. **Action orientation**: Every step in the GALS process encourages action for change, transitioning from individual actions to collective efforts within families, groups or communities.
- 5. **Sustainability**: The pyramidal peer-sharing system of GALS fosters self-upscaling, contributing to sustainability. It aims to drive a movement for gender and social justice at various levels, from the community to the national level.
- Gender as fun: GALS is designed to be enjoyable, promoting positive energy for change through songs, acting, performances, and the use of visual GALS tools.

The GALS process can be household-led or community-led and relies on a peer-sharing system, where champions play a crucial role in propagating the methodology (Farnworth et al., 2018; IFAD, 2022). These champions are household or community members who receive GALS training and then share it with at least five others, becoming key agents of change in the GALS process. GALS is fundamentally rooted in principles of empowerment, sustainability, and local ownership. As the process unfolds, project staff serve as catalysts and facilitators, enabling a transformative journey driven by the community itself.

3.8.4 Evidence of gender transformative approach for savings and internal lending community groups in Zambia

At the national level, Zambia's poverty incidence was 60 percent in 2022, compared to 54.4 percent in 2015, with rural areas experiencing higher rates, particularly in provinces like Muchinga, Northern, Western, Luapula, and Eastern (Zambia Statistics Agency, 2023). Femaleheaded and elderly-headed households are more prone to poverty, and they seek increased access to credit to alleviate their impoverished conditions. In response, Catholic Relief Services (CRS), through

Caritas-Mongu in Western Province, has facilitated the formation of Savings and Internal Lending Community (SILC) groups. Despite high poverty levels, Zambians express a strong desire to save. These groups aim to empower economically active individuals, especially women, by establishing reliable financial services within the community to foster self-reliance and resilience. SILC groups have helped women to save, invest in small businesses, improve homes, purchase agricultural

inputs, and pay for school fees (Cole et al., 2021). This initiative is vital in Western Province, where women face constraints in credit access, asset ownership, decision-making, and overall well-being (Cole et al., 2015). Box 7 presents the case study of microfinance models as a growing body of evidence for integrating GTAs into saving groups.

We present a case study in Zambia, situated in the Barotse Floodplain, Western Province, that incorporates a GTA into a savings group methodology (Cole et al., 2021). The evolution of microfinance now extends to savings groups, offering financial services to those without access to formal options. Development organizations use savings group methodologies, particularly to empower women in low-income contexts. However, studies indicate that women's participation in these groups may not necessarily translate to increased control over loans and savings, raising questions about the true economic empowerment of women (CARE Ethiopia, 2020).

Box 7. A case study on gender transformative approach for the savings and internal lending community groups in Barotse Floodplain, Western province, Zambia

In early 2015, the SILC methodology was integrated with a GTA (SILC+GTA) in focal communities in the Barotse Floodplain. A facilitator manual was developed to supplement the CRS guide for implementing SILC. SILC+GTA works to create pathways through which members can freely invest their time and money in economically productive activities, leading to better, long-lasting, and more equitable development outcomes for women, men, and youth. Stakeholders contributed to the manual's content, informed by a social and gender analysis conducted in late 2013. Twelve gender transformative sessions, including an introductory one, were integrated into the SILC methodology. The focus was on various topics like visioning, gender roles, economic decision-making, socialization, parenting, couple working dynamics, teamwork, alcohol abuse, spousal support, gender equality, violence prevention, anger management, and strengthening couple relations. Visual aids were incorporated into the manual to enrich discussions during these sessions, which were conducted monthly during regular SILC group meetings.

Each session followed a participatory action research process that entailed the following:

- Critical reflection by SILC group members on the discussed topic.
- Action planning to address or leverage genderrelated constraints/opportunities involving group members and their spouses or family.

Feedback on the implementation of action plans

The process, implemented by SILC facilitators and group members, embodied the core principles of participatory action research, emphasizing shared ownership, equity, collaborative analysis, and ongoing learning for social change and transformation.

The outcomes of the transformative innovation indicated that the pilot integrating SILC group and gender transformative sessions led to significant changes in decision-making powers regarding savings among women and men. Notably, there was a decrease in the percentage of women whose spouses made decisions about savings, and an increase in those who reported joint decision-making. No statistically significant changes were observed in the SILC-only group.

Qualitative results underscored the mechanism driving these changes, starting with critical reflection on gender norms, intrahousehold decision-making, power, and violence facilitated by local SILC leaders. This reflection prompted action planning by group members and their spouses, culminating in feedback sessions to share learning and outcomes. Action plans targeted household-level gender constraints hindering more equitable development outcomes, emphasizing the need for joint decision-making. This shift is seen as an initial positive step in enhancing women's agency within the home and community.

(Source: Cole et al., 2021, pp. 2-3)

4. Discussion

This comprehensive review analyzes the challenges and opportunities related to GESI within Zambia's agribusiness ecosystem as undertaken by IITA through the UU Initiative. Zambia's agriculture sector, which employs 56 percent of the population, faces growth and diversification challenges, emphasizing the need for sustainable interventions. The review outlines the demographic challenges posed by Zambia's youthful population, the struggles of smallholder farmers, and the potential of the agribusiness sector, which is dominated by smallholder farming. However, the government's commitment to agribusiness development, sustainability initiatives and collaboration with various stakeholders signals a strategic approach to becoming a regional food supplier.

The agribusiness sector in Zambia confronts various challenges rooted in societal, economic, and institutional factors. Key challenges include deeply ingrained cultural norms, specifically traditional patriarchal norms and gender roles, which hinder GESI interventions (Mapedza et al., 2023). In education, gender disparities persist, limiting opportunities for women and girls, while economic inequality, including restricted access to credit and financial resources, affects women and youth (Ministry of Gender Zambia, 2020). Healthcare disparities and political underrepresentation remain concerns, impacting women's well-being and leadership roles (Ministry of Gender Zambia, 2020). Gender-based violence is pervasive, and challenges in accessing and owning land affect the economic empowerment of women and youth (Cole et al., 2015). Gaps in legal frameworks and enforcement, along with inadequate data collection, hinder the protection of rights and accurate monitoring of GESI initiatives. Furthermore, challenges with implementing GESI programs, such as insufficient resources, add to the complexities faced by the agribusiness sector in Zambia (Mulema et al., 2021).

The review has unpacked the potential of eight GESI core capacities in agribusiness transformation in Zambia adopted from TI and ILRI (2016) and the UU Initiative's GESI framework. These capacities will guide the development of a GESI capacity assessment and development strategy for evaluating actors and beneficiaries in the UU Initiative. Given the budding stage of GESI programming in Zambia's agribusiness ecosystem, capacity development is essential in most of these core areas. The study presents a summary of the findings and insights into each of the eight core GESI capacities:

- 1. The GESI principles are fundamental for addressing exclusion and vulnerability, and promoting equity, social justice, and inclusivity in Zambia's agribusiness ecosystem. These principles involve gender transformational programming, recognizing intersectionality, promoting social inclusion, identifying and assisting vulnerable groups, collecting inclusive disaggregated data, employing participatory approaches, and upholding a rights-based approach. These principles aim to create a more equitable society within the agribusiness context.
- 2. The capacity to apply GESI analytical tools and strategic planning is pivotal for achieving development goals and building equitable societies in Zambia's agribusiness ecosystem. These tools address challenges faced by women and youth, promoting evidence-based decision-making, targeted interventions, equitable resource allocation, progress measurement, legitimacy, compliance, innovation, stakeholder engagement, and sustainability. The UU Initiative's GESI framework emphasizes inclusivity in its operational countries, guiding agribusiness innovations for the benefit, empowerment, and transformation of women and youth.
- 3. Effective partnerships, collaborations, and advocacy are vital for addressing GESI challenges in agribusiness. Collaborations allow stakeholders to leverage strengths, create a unified front, and catalyze transformative change. Advocacy efforts, engaging with governments and external partners, play a pivotal role in integrating GESI considerations into policies and practices. True partnerships contribute to sustainable development outcomes, emphasizing locally driven solutions over imposed foreign practices.
- 4. Financial commitment to GESI programming is crucial, symbolizing the allocation of resources to prioritize and uphold GESI principles. This commitment acknowledges contextual differences based on social identities and aims to mainstream GESI practices into national programs, creating a more equitable society.
- Knowledge management and GESI-responsive MEL are vital for promoting learning and accountability and for ensuring effectiveness, sustainability, and inclusivity. Knowledge management involves capturing, sharing, and leveraging insights to foster innovation and informed decision-making.

GESI-responsive MEL focuses on promoting GESI throughout project cycles. By harnessing knowledge and integrating GESI considerations, organizations can identify disparities, track progress, and foster transparency, empowering marginalized groups and promoting their participation in development interventions.

- 6. The capacity to develop leadership in GESI involves three key dimensions: vision, effectiveness, and integrity. Women's roles in agriculture often go unrecognized, leading to a "voice gap" in decision-making processes. Women's leadership is crucial for driving change in GESI, shaping narratives, fostering inclusive environments, and driving the transformation needed for a more equitable society.
- 7. The capacity to inclusively scale GESI innovations is crucial for AR4D organizations addressing complex societal challenges. Scaling innovations requires context-specific approaches within multistakeholder networks. Recognizing the multifaceted challenges diverse groups face, a narrative around scaling GESI innovations inclusively emphasizes genuine gender equality and inclusivity. Understanding the heterogeneous nature of adopting innovations across diverse landscapes and social collectives is crucial for designing effective and inclusive interventions.
- 8. Innovations in GESI transformative approaches aim to create critical awareness about gender roles and norms among women, men, and youth in Zambia's agrifood systems. Gender inequalities and social exclusion persist, requiring a profound understanding of the root causes. GTAs focus on amplifying voices, empowering women and youth, and enabling advocacy for change through leadership and collective organizing.

Recognizing the significance of integrating GESI into AR4D, the review underscores the ethical imperatives and developmental drivers associated with GESI principles. It emphasizes the pivotal role of addressing the specific needs of women, youth, and vulnerable and marginalized groups in agribusiness to achieve sustainable development objectives. The GESI framework in agribusiness goes beyond equity, fostering a more prosperous, resilient, and sustainable sector that benefits society. Thus, emerging trends in GESI within the Zambian agribusiness sector signify a growing awareness of equitable development. Key trends identified include agricultural policy reforms, emphasizing gender responsive policies recognizing women's roles, and ensuring their access to resources (Nawiko et al., 2022). There is an increasing focus on women's empowerment, promoting their participation across the value chain in commercializing crop enterprises (Akamandisa et al., 2023). Recognizing the potential of youth, especially females, there is a trend toward targeted programming to engage and empower them in agribusiness and related entrepreneurial ventures (Nortje et al., 2023). Inclusive finance initiatives tailored to women and marginalized groups aim to provide accessible financial services, exploring microfinance and community-based solutions (Cole et al., 2020). Climate-resilient agricultural practices are gaining traction, aligning with GESI principles to address the specific needs of different groups (Mapedza et al., 2023). Additionally, there is a focus on value addition and agroprocessing, encouraging greater participation of women and youth for generating income within the value chain. Community-based initiatives led by NGOs and development agencies play a role in enhancing GESI principles, improving the livelihoods of marginalized groups and engaging in agribusiness (Akamandisa et al., 2023).

5. Recommendations

Based on the findings, we provide recommendations highlighting the multifaceted efforts needed for inclusive and sustainable development of GESI programming in ESA and Zambia's agribusiness sector:

- 1. The UU teams' effective use of GESI principles and analytical tools contribute to fostering equity, social justice, and inclusivity in the agribusiness sector. These tools can facilitate evidence-based decision-making, targeted interventions addressing challenges faced by women and youth, and promote equity and social justice. We recommend that true partnerships, marked by voluntary collaboration and optimizing resources, are crucial in addressing GESI challenges and fostering transformative change for sustainable development outcomes.
- Financial commitment to GESI programming is crucial, considering contextual differences based on social identities. GTAs address and transform systemic causes of gender inequalities, focusing on power dynamics and discriminatory norms. We argue that achieving gender transformative change requires a financial commitment, a nuanced comprehension of local contexts, and stakeholder collaboration.
- 3. Promoting transformative innovations in GESI approaches creates critical awareness about gender roles and norms. They aim to empower women and youth by challenging traditional resource distribution and addressing community power dynamics. Therefore, digitalization of agriculture can impact access to information and market opportunities. However, existing gaps contribute to a digital divide, especially affecting women and youth, thus a need to invest in digital infrastructure and digital literacy.

- 4. Gender inequality in leadership stems from disparities in rights, opportunities, and roles governed by gender and social norms. Women's leadership is crucial for driving change in GESI, fostering inclusive environments, and transformation toward a more equitable society. We recognize that integrating GESI goals into value chain development projects enhances performance, ensures equitable distribution of added value, and contributes to the economic empowerment of women and youth.
- 5. The capacity to scale agricultural innovations inclusively is crucial for AR4D organizations addressing complex societal challenges and for achieving the SDGs. However, challenges and intricacies in the scaling process impact the showcasing of success and the achievement of the SDGs.

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7. Annex: Summary of the documents reviewed (n=76)

No	Author/s	Type of publication	Database	Context	Focus area
1.	Adam et al. (2022)	Workshop report	CGSpace	Kenya	GESI in agribusiness ecosystems
2.	AGRA (2020a)	Technical report	AGRA website	SSA	COVID-19 situation report
3.	AGRA (2020b)	Technical report	AGRA website	SSA	Women SMEs and COVID-19
4.	Akamandisa et al. (2023)	Technical report	CGSpace	Zambia	GESI agribusiness success stories in Zambia
5.	Apondi et al. (2023)	Technical report	CGSpace	Kenya	GESI in agribusiness ecosystems
6.	Asian Development Bank (2022) Toolkit	ADB website	South Asia	Developing a GESI strategy
7.	AU et al. (2022)	Biennial review report	AU website	SSA	Agricultural development
8.	Bikketi et al. (2016)	Journal article	Routledge	Kenya	Gendered division of labor and feminization of agriculture
9.	CARE Ethiopia (2020)	Toolkit	CARE website	Ethiopia	Village economic and social associations
10.	CARE International (2016)	Toolkit	CARE website	Global South	Inclusive governance
11.	Carter (2015)	Technical report	GSDRC website	Global	Inclusive societies
12.	CGIAR (2015)	Working paper	CGSpace	Global	Capacity development framework
13.	Castellanos et al. (2022)	Book	Routledge	Global	Gender food and COVID-19
14.	Cole et al. (2015)	Journal article	Research Gate	Zambia	Relationship between poverty, gender inequality, and rural masculinity
15.	Cole et al. (2020)	Journal article	Routledge	Zambia	A comparative assessment of gender accommodative versus transformative approaches
16.	Cole et al. (2021)	Working paper	CGSpace	Zambia	Effects of a GTA in saving groups
17.	Cofler et al. (2018)	Working paper	CIFOR website	Indonesia	Intersectionality in forestry
18.	Doss (2014)	Working paper	CGSpace	Global South	Data needs in gender analyses
19.	Farnworth et al. (2018)	Journal article	Elsevier	Malawi	Potential of household methodologies in strengthening gender equality among smallholders
20.	FAO (2011)	Strategy	FAO website	Global South	Supporting capacity development of member countries
21.	FAO et al. (2015)	Case studies	FAO website	Global South	Promoting the leadership of women in POs
22.	FAO (2023)	Technical report	FAO website	Global South	Status of women in agrifood systems
23.	FAO et al. (2023)	Working paper	FAO website	Global South	Guidelines for measuring gender transformative change
24.	Galiè et al. (2017)	Journal article	Elsevier	Syria	Women's empowerment through seed systems
25.	Gebreyes et al. (2021)	Journal article	PLOS One	Ethiopia	Scaling agricultural innovations
26.	Gender Innovation Lab, World Bank (2019)	Working paper	World Bank website	SSA	Gender equality in agribusiness
27.	GESI Working Group (2017)	Working paper	UNDP website	Nepal	Toward a common GESI framework
28.	Grant and Booth (2009)	Journal article	Wiley Online	Global South	Analysis of review typologies and methodologies
29.	Grant et al. (2023)	Journal article	Frontiers	Timor-Leste	GESI in water, sanitation and hygiene programs

No	Author/s	Type of publication	Database	Context	Focus area
30.	Hillenbrand et al. (2014)	Journal article	Routledge	Cambodia	Social relations approach to capture complexity in women's empowerment
31.	IFAD (2022)	Toolkit	IFAD website	Global South	GALS in operations
32.	IITA (2022)	Workshop report	CGSpace	Zambia	GESI in agribusiness ecosystems in Zambia
33.	Integrity Action (2016)	Strategy	Integrity action website	Global South	GESI strategy
34.	Kabeer (2002)	Working paper	IDS Bulletin	Global South	Analytical framework for social exclusion poverty and discrimination
35.	Kabeer (2010)	Journal article	IDS Bulletin	Global South	Women's empowerment in development interventions
36.	Kabeer (2015)	Journal article	Routledge	Global South	Gender, poverty, and inequality feminist contributions
37.	Kantor et al. (2015)	Journal article	SAGE Publications	Global south	GTAs in agricultural development
38.	Kiwarazuka et al. (2018)	Toolkit	CGSpace	Global South	Gender in agricultural mechanization
39.	Koutsos et al. (2019)	Journal article	Elsevier	Global	Conducting systematic reviews in agricultural sciences
40.	Mabiso and Benfica (2019)	Working paper	IFAD website	SSA	Rural youth and economic opportunities
41.	MacArthur et al. (2022)	Journal article	Elsevier	Global South	GTAs in international development
42.	Mapedza et al. (2023)	Working paper	CGSpace	Zambia	Framework for integrating GESI in climate change
43.	March et al. (1999)	Book	Oxfam website	Global	Gender analysis framework
44.	McGuire et al. (2022)	Journal article	Elsevier	Global South	Gendered impact in scaling innovations
45.	Ministry of Gender Zambia (2020)	Technical report	Republic of Zambia website	Zambia	Gender status report
46.	Moore et al. (2015)	Journal article	Research Gate	Canada	Scaling innovations
47.	Mulema et al. (2021)	Journal article	Routledge	Zambia and Vietnam	Youth engagement in agribusiness
48.	Muthui and Woodhill (2023)	Working paper	FARA website	SSA	Opportunities for engaging youth in employment
49.	Nawiko et al. (2022)	Technical report	CGSpace	Zambia	Zambia agricultural policies
50.	Njuki et al. (2022)	Journal article	Elsevier	SSA	Gender equality and women's empowerment In agrifood systems
51.	Nortje et al. (2023)	Working paper	CGSpace	ESA	GESI in agribusiness in ESA
52.	O'Sullivan et al. (2014)	Technical report	World Bank website	SSA	Gender gaps in agriculture
53.	Petesch et al. (2018)	Book	CGSpace	Global South	Gender, norms, and agency in agricultural innovations
54.	Poulsen (2018)	Working paper	Google Scholar	Global south	Implementing GTAs in agriculture
55.	Ragasa et al. (2013)	Journal article	Taylor and Francis	Global South	Gender and access to extension services
56.	Rice et al. (2019)	Journal article	Sage Journals	Global South	Intersectionality
57.	Roche et al. (2015)	Technical report	Reality to Aid Australia website	Australia	Partnerships and collaborations
58.	Royal Tropical Institute et al. (2012)	Toolkit	Royal Tropical Institute website	Global South	Value chain development
59.	Rydergaard and Spiers (2021)	Working paper	USAID website	Global South	GESI and youth engagement
60.	Sachs et al. (2019)	Technical report	Google Scholar	Global	Sustainable development goals
61.	Sartas et al. (2020)	Journal article	Science Direct	Global South	Scaling innovations
62.	Schneider et al. (2019)	Journal article	Elsevier	Global South	Transdisciplinary and co-production of knowledge

No	Author/s	Type of publication	Database	Context	Focus area
63.	Tamang (2022)	Dissertation	Google Scholar	Global	GESI and intersectionality
64.	Tavenner and Todd (2019)	Journal article	Sage Publications	Global South	Intersectionality in agricultural research development
65.	TI and ILRI (2016)	Working paper	CGSpace	Global South	GESI capacity development in livestock and fisheries
66.	Tschakert and Mario (2012)	Journal article	Routledge	Global South	Gender justice in climate change
67.	UN Women (2014)	Toolkit	UN Women website	Global South	Gender equality assessment
68.	UNDP (2008)	Working paper	UNDP website	Global South	Capacity assessment methodology
69.	van Eerdewijk et al. (2017)	White paper	Royal Tropical Institute website	Global South	Women and girls empowerment
70.	van Eerdewijk et al. (2021)	Technical report	Royal Tropical Institute website	Global South	Integration of gender equality and social inclusion considerations into climate adaptation and resilience
71.	Weeratunge et al. (2010)	Journal article	Wiley Online	Global South	Aquaculture value chains
72.	Woodhill (2016)	Working paper	Tapidei website	Global South	Inclusive agribusiness
73.	Woodhill et al. (2020)	Technical report	Foresight4Food	Global	Future of smallholder agriculture
74.	World Bank (2012)	Technical report	World Bank website	Zambia	Agribusiness indicators in Zambia
75.	World Bank (2018)	Working paper	World Bank website	Global South	Women, business, and the law
76.	Zambia Statistics Agency (2023)	Technical report	Republic of Zambia website	Zambia	Poverty assessment in Zambia

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