

THE ROLE OF WOMEN IN ZAMBIA'S MODERN AGRICULTURE

Chisanga MWELWA¹, Laura SMULEAC¹, R. PASCALAU¹

¹ University of Life Sciences "King Mihai I" from Timișoara

Corresponding author: laurasmuleac@usvt.ro

Abstract. *In accordance with current agricultural methodologies in Zambia, the involvement of women has become markedly salient and crucial. Over a span of years, female individuals have shifted away from conventional duties to become indispensable figures within the agricultural domain, partaking not solely in subsistence cultivation but furthermore in commercial pursuits that propel economic advancement. This notable transformation can be credited to a multitude of factors, encompassing governmental regulations geared towards promoting gender parity, enhancement of educational opportunities, and a rise in engagement within agricultural collectives. Moreover, as women occupy leadership positions in these collectives, they are not merely empowered, but also play a significant role in nurturing sustainable agricultural frameworks and bolstering food stability in their localities. The complex interaction between the roles of women and the productivity of agriculture in Zambia provides notable understandings of socio-economic dynamics as well as cultural views. The data imply that enhancing women's access to resources and platforms for decision-making could remarkably increase agricultural productivity and enhance livelihood results, ultimately contesting the existing patriarchal constructs within the agricultural system of Zambia. Hence, the transforming function of women in this sphere mirrors wider socio-economic changes and underscores the imperative for inclusive strategies that duly acknowledge their essential contributions, which ultimately act as a driving force for development within Zambia's agricultural realm.*

Keywords: *modern agriculture, women involvement, food stability, inclusive strategy and policies, gender equity, sustainability*

INTRODUCTION

As we address the challenges of food security and sustainable agriculture in Africa, one key factor stands out – the irreplaceable role of African women in this sector. In promoting food solutions and initiatives aimed at integrating the concept of circularity, women are influencing positive change in diverse and profound ways, acting as community leaders, educators, innovators, livestock managers, farmers and even pioneers in reducing post-harvest losses. It is imperative to highlight such roles that women play, because in much of the world, women are the main growers and producers, even if their work is largely unappreciated.

Furthermore, agri-food systems are a much more important source of livelihood for women than for men in sub-Saharan Africa. According to the United Nations Food and Agriculture Organization 2023 Report, women outnumber men in employment in the sector, despite additional responsibilities related to unpaid domestic and care work, such as cleaning and caring for household members.

The agricultural sector in Zambia is significantly reliant on the contributions of women; however, these contributions are frequently undervalued, thereby illuminating a considerable lacuna in the dialogue pertaining to agricultural productivity. The inclusion of women in agricultural activities not only bolsters food security but also promotes economic progression and sustainability. Research indicates that the empowerment of women can precipitate enhancements in agricultural outcomes, exemplified by increased yields and the implementation of more resilient farming techniques. For example, by advancing women's autonomy in decision-making realms, agricultural initiatives can markedly diminish occurrences of early marriage and enhance maternal health, which in turn addresses prematurity and uplifts the overall well-being of the community (Afulani et al., 2017).

Moreover, considering that women represent a substantial proportion of the agricultural workforce, their active participation is essential in alleviating socio-economic difficulties and addressing food production challenges within Zambia. Thus, it is essential to acknowledge and strengthen women's roles in agriculture, as this is vital not only for the progression of gender equity but also for the promotion of agricultural development and economic stability within the region, as highlighted by significant literature discussing their contributions to sustainable methodologies and economic resilience (Anunobi, 2002, Pascalau et al, 2023).

MATERIAL AND METHODS

The agricultural scene in Zambia presents a dualistic structure, comprising both subsistence-oriented farming and commercial agricultural endeavours, wherein an array of crops and livestock are cultivated throughout the nation's varied ecological zones. A noteworthy aspect is the predominance of smallholder farmers, amounting to roughly 90% of the agricultural labour force, who are integral to the food production mechanisms and the overall economic viability of the nation. Nevertheless, these small-scale agriculturalists frequently encounter substantial impediments, such as restricted access to essential resources, insufficient infrastructural frameworks, and an inherent susceptibility to the ramifications of climate change. Within this challenging milieu, women emerge as pivotal figures in agricultural practices, adeptly manoeuvring within the socio-economic constraints through inventive methodologies. A salient example of this is evident in the increasing participation of women in informal economic activities that are intrinsically linked to agriculture, which is particularly observable in the burgeoning informal markets located within urban settings. This phenomenon corroborates existing research that underscores the profound influence of socio-economic elements in shaping women's roles within the realm of agricultural development. In addition to their notable contributions, women are indispensable for the maintenance of food security and the fostering of community resilience within a context where agricultural practices are progressively integrated with broader societal challenges (Mulolani, 2019, Haaland et al., 2021, Smuleac et al., 2023).



Fig. 1. Zambia Agriculture map

The investigation into the roles occupied by women in contemporary agriculture within Zambia is not merely timely but is also crucial for comprehending the wider socio-economic environment of the country. The research seeks to shed light on the noteworthy contributions that women provide within agricultural practises, acknowledging their simultaneous position as both producers and caregivers in their family units. This particular emphasis is especially pertinent in view of Zambia's context, where entrenched gender roles frequently curtail women's economic prospects and independence. Through an analysis of these dynamics, the study aims to reveal the systemic obstacles that obstruct women's comprehensive engagement in the agricultural industry, with the ultimate aim of advocating for policy reforms that foster gender equity. The resultant findings bear considerable importance, as they are anticipated to influence development initiatives and the distribution of resources, thereby facilitating a more sustainable and inclusive agricultural framework that may enhance the nation's economic advancement and food security. Furthermore, an understanding of the economic ramifications associated with women's roles in agriculture, as highlighted in investigations into cultural representations (Mulolani, 2019) and conservation methodologies (Chikumbi, 2013), underscores their potential as crucial contributors to addressing socio-economic difficulties faced by Zambia.

RESULTS AND DISCUSSIONS

The historical backdrop pertaining to women within the sphere of Zambian agriculture reveals a multifaceted interaction of societal roles, significantly shaped by colonial as well as post-colonial factors. Historically, women have played a crucial role within agricultural production, frequently burdened with the majority of tasks linked to farming yet garnering scant recognition or assistance. This neglect is consistent with patterns observed in broader African liberation movements, wherein the contributions of women are often inadequately documented notwithstanding their substantial influence on national development. The period following independence introduced various policy alterations; however, numerous challenges endured, notably the restricted access to resources and the decision-making arenas, which persistently rendered women's contributions within the sector marginalised. Additionally, an examination of gender dynamics within parliamentary discussions underscores the ongoing battles for women's rights and representation in agriculture, where their distinct insights concerning health, education, and farming tools are routinely disregarded (Mensah et al., 2018). Consequently, grasping this historical framework is vital for assessing the contemporary obstacles that women encounter in Zambian agriculture whilst also promoting strategies aimed at empowerment.

In a historical context, the roles women have occupied in Zambia's agricultural production sphere have been of significant importance, albeit these roles are frequently limited to the informal sector, which encompasses subsistence farming and food processing. Despite the notable contributions made by women, conventional cultural norms and institutional obstacles have generally served to constrain them within traditional roles, thereby restricting their access to essential resources and extension services. Efforts exemplified by the Women's Extension Program in Western Province represent initiatives aimed at transforming the prevailing agricultural framework by recognising and enhancing women's participation (Jiggins et al., 1992). Furthermore, the incorporation of tailored land tenure recordation strategies indicates the critical importance of acknowledging various tenure rights, which profoundly influence women's agency within the agricultural domain (Lengoiboni et al., 2018). Through a paradigm shift and the provision of specific support, these initiatives aim to empower women farmers, fostering equity and sustainability within Zambia's agricultural landscape. The transformation of these roles demonstrates the possibility for women to evolve from

conventional duties to becoming vital contributors in the sphere of contemporary agricultural advancement.

The progression of agricultural methodologies within the context of Zambia has been characterised by a slow yet notable transition towards practices that are both inclusive and sustainable. Traditionally, the field has been predominantly influenced by male practitioners; however, there has been an increasing acknowledgment of the essential roles played by women, particularly through initiatives that are community-oriented. For instance, the Women's Extension Programme situated in the Western Province of Zambia serves as a prime illustration of this evolution by reconfiguring agricultural services to cater to the particular requirements of female farmers, thus advancing discussions around gender equity in agriculture (Jiggins et al., 1992). Furthermore, novel technological advancements, including mobile applications designed for the recording of land tenure, have surfaced as significant instruments for the empowerment of women, simultaneously safeguarding their rights regarding land ownership—a facet that has historically posed challenges within various agricultural settings (Lengoiboni et al., 2018). These developments do not merely serve to elevate productivity but also contribute to the establishment of a more just agricultural framework that supports and enhances the role of women in contemporary farming methodologies, thereby reflecting a substantial metamorphosis in the agricultural environment of Zambia.

Colonialism has, in a significant manner, transformed the socio-economic framework within Zambia, notably in relation to the roles of women in the agricultural sector. The enduring influence of colonial policies, which typically sidelined women in favour of male-centric systems, has sustained the gender disparities that continue beyond the era of independence. For example, the ambitions of young Zambian men desirous of establishing themselves as hip-hop artists exemplify a tension between cultural expectations and the stark realities imposed by patriarchal norms, which have been shaped by both colonial legacies and modern-day influences (Mulolani, 2019). Furthermore, the land reforms instituted post-colonially, while ostensibly aimed at enhancing land accessibility, frequently disregard the specific requirements of women, as evidenced by the situation in rural Zimbabwe, where women's access to land persists in being restricted by patriarchal frameworks (Zamchiya et al., 2023). Such relationships not only obstruct women's engagement in contemporary agricultural practices but also signify a continuation of subjugation entrenched in historical circumstances, thereby necessitating an in-depth analysis to ensure that reforms truly facilitate the empowerment of women in Zambia's agricultural domain.



Fig. 2. Challenges Faced by Women Farmers in Zambia

Current Contributions of Women in Modern Agriculture

In Zambia, there has been an upsurge in the acknowledgment of women's essential roles within the realm of contemporary agriculture, signifying a more extensive transition towards gender inclusivity within the agricultural domain. The contributions of women are manifesting beyond the confines of traditional responsibilities, as an increasing number of women are assuming leadership roles within farming cooperatives and exerting influence on decision-making processes at both local and national spheres. This transformation not only contributes to agricultural productivity but also fosters sustainable methodologies that augment food security and enhance the overall well-being of communities. Moreover, the empowerment of women is directly linked to enhancements in health outcomes for families, as indicated by studies demonstrating that the elevation of women in health-related decision-making roles may result in diminished occurrences of preterm births alongside improved nutritional conditions (Afulani et al., 2017). As women persist in contesting established gender norms, their engagement is pivotal for tackling broader socio-economic challenges, thus underscoring the necessity of incorporating gender considerations into agricultural development frameworks (Anunobi, 2002).

Women's participation in crop production and livestock management

The prominent function of females within the sphere of agriculture, especially regarding the cultivation of crops and the management of livestock, has increasingly been acknowledged as a critical component for the improvement of food security and the advancement of economic development within Zambia. In spite of existing systemic hindrances, women engage actively in agricultural undertakings, frequently overseeing domestic gardens and playing a role in communal farming efforts. Of particular note are initiatives such as Zambia's Women's Extension Program, which serve as a case in point for attempts to incorporate women into agricultural policy frameworks, with the objective of altering bureaucratic perspectives towards gender inclusivity in agricultural extension services (Jiggins et al., 1992). Moreover, evidence derived from research conducted in Zimbabwe highlights similar obstacles encountered by women concerning access to land and the distribution of labour, thereby exposing ongoing patriarchal frameworks that obstruct their progression within agricultural domains (Zamchiya et al., 2023). Consequently, while it is indisputable that women's roles are crucial, it becomes essential to confront these longstanding inequities through the implementation of targeted policy measures and supportive infrastructures to actualise their capacity within Zambia's contemporary agricultural context.

Role of women in agricultural cooperatives and organizations

Women occupy a crucial position within agricultural cooperatives and entities, making substantial contributions to both food production and community advancement. Their participation not merely enhances agricultural efficiency but also cultivates social unity among participants. Initiatives that incorporate women into these cooperatives, exemplified by Zambia's Women's Extension Programme, highlight the significance of revising agricultural objectives to encompass female viewpoints and necessities (Jiggins et al., 1992). By involving women in cooperative frameworks, these programmes facilitate avenues for training and skill enhancement whilst tackling the often-overlooked obstacles they encounter. Additionally, the repercussions of escalating food prices on household well-being accentuate the urgency of elevating women's voices in the decision-making realms of cooperatives (Chibuye, 2015). As rural households navigate economic variabilities, the roles that women uphold in these organisations prove essential for guaranteeing food security and enduring livelihoods, which thus accentuates their vital influence in contemporary Zambian agriculture.

Influence of women on food security and nutrition

In scrutinising the significant effect of women on food security and nutrition in the context of Zambia's agricultural sphere, it becomes apparent that their roles go beyond mere traditional farming activities. Women play an essential role in bolstering agricultural productivity and enhancing food variety, both of which are crucial for tackling issues of malnutrition. Various initiatives, such as the Women's Extension Programme in Zambia's Western Province, are designed to incorporate women into agricultural extension services, thus addressing their particular needs and improving their access to resources and information (Jiggins et al., 1992). This empowerment not merely promotes superior agricultural methodologies but also impels women to embrace climate-smart agriculture (CSA) practices, which are vital for sustainable food production in light of fluctuating climatic conditions. Furthermore, the engagement of women in decision-making spheres pertaining to food systems guarantees that nutritional security is given precedence, reflecting their insights into family nourishment dynamics. Consequently, as agents of transformation, women considerably enhance both food security and nutritional outcomes within Zambia.

Challenges Faced by Women in Agriculture

Numerous challenges beset women within the realm of agriculture, substantially hindering their contributions to the contemporary farming framework in Zambia. These impediments typically arise from systemic inequalities that restrict women's access to vital resources, inclusive of land, financial credit, and agricultural inputs. For example, various studies demonstrate that women often encounter limitations in decision-making processes within the household context, directly affecting their capacity to implement innovative agricultural technologies (Doss, 1999.). This gender-specific delineation of labour undermines their productivity and economic autonomy, thereby influencing overall household welfare detrimentally. In addition, the discrepancies in access to markets obstruct women's ability to make the most of their agricultural production, perpetuating their vulnerability during economic shifts. Although notable advancements are observable, such as the burgeoning organic farming segment highlighted in a recent investigation revealing significant global increases in organic land management (International Federation of Organic Agriculture Movements (Parrott et al., 2006), the implementation of focused policies aimed at empowering women farmers continues to be imperative for the actualisation of their comprehensive potential within Zambia's agricultural domain.

Access to land and property rights

The accessibility of land alongside property rights serves as a crucial factor in determining the roles and responsibilities attributed to women within the agricultural domain of Zambia. Recent initiatives concerning rural certification programmes have sought to solidify customary land rights, thus inducing an evolution in the prevailing tenure regimes which bear implications for women's agricultural engagement. Notably, whilst these initiatives have succeeded in enhancing perceptions of tenure security among women, they simultaneously expose a convoluted interplay of both beneficial and adverse consequences. For example, a certain study indicated an escalation in women's involvement in local land governance; however, numerous informal market dealings persist in a legally precarious state, which signifies potential weaknesses in women's capacity to secure credit and resources (Zamchiya et al., 2023). Moreover, as the formalisation processes progress, disparities in wealth may become further pronounced, with advantages accruing to a limited subset of women and systematically sidelining others (Zamchiya et al., 2023). Thus, achieving equitable access to land and property rights emerges as a necessity, in order to cultivate a more inclusive agricultural framework that

not only acknowledges but also amplifies women's contributions within the contemporary agricultural landscape of Zambia.

Barriers to financial resources and credit

The procurement of financial resources and credit persists as a noteworthy difficulty for female agricultural practitioners in Zambia, thus obstructing their potential for advancements in agriculture. Notwithstanding their essential contribution to food production, structural impediments—comprising the absence of collateral, inadequate financial literacy, along with prejudicial lending practices—frequently culminate in the exclusion of women from credit markets. Such exclusion consequently constrains their capacity to make investments in crucial agricultural inputs, which in turn leads to diminished levels of productivity and income. Additionally, the convoluted financial milieu, characterised by a dependence on foreign investments, predominantly emanating from nations such as China, further complicates the accessibility of financial assistance for local women. It has been observed that, “China has used opaque foreign policy to evolve into a neo-colonial force on the African continent” (Ernske, 2020). These dynamics serve to intensify the pre-existing disparities, thereby underscoring the pressing necessity for customised financial instruments and inclusive policies aimed at empowering female farmers and augmenting their role within Zambia’s agricultural domain. This is evidenced by initiatives such as the Women’s Extension Program, which seeks to incorporate women into agricultural services (Jiggins et al., 1992).

Societal and cultural constraints affecting women's roles

The various societal and cultural limitations considerably obstruct the contributions women can make to the contemporary agricultural scene in Zambia. Predominantly traditional patriarchal conventions frequently assign women to inferior positions, thereby constraining their autonomy and economic agency. For example, within rural areas such as the Mungwi District, women often regard poverty as bound up with a sense of powerlessness and exclusion, a situation intensified by gender-specific inequalities that impede access to resources and opportunities (Mutale et al., 2021). Additionally, portrayals of masculinity in mainstream media, such as the television series *Empire*, tend to have adverse effects, reinforcing stereotypes that diminish the significance of women's participation in agriculture (Mulolani, 2019). The absence of equitable treatment not only impacts women's involvement in agricultural decision-making processes but also limits their capacity to obtain fair remuneration for their work. As a result, tackling these deep-rooted societal and cultural obstacles is essential, as it possesses the potential to alter women's roles, thus enabling them to fully engage in enhancing agricultural productivity and fostering community development within Zambia.

CONCLUSIONS

In conclusion, the incorporation of women into the contemporary agricultural framework of Zambia has surfaced as a crucial component for the achievement of sustainable development in rural areas, mirroring wider socio-economic shifts. The active functions undertaken by women not only contest established gender conventions but also highlight their considerable input towards agricultural productivity and food security. A range of initiatives aimed at empowering women, chiefly through community-centric strategies, resonate with observations from other scenarios wherein such participatory techniques have evidenced effectiveness. For example, as recorded in (Lengoiboni et al., 2018), the rollout of mobile digital methods for the documentation of land tenure underscores the necessity of modifying strategies to align with local circumstances, potentially improving women's access to various resources. Additionally, the influence of global discourses, as seen in media portrayals, as elaborated in (Mulolani, 2019), signifies how cultural interpretations may shape local

perspectives on masculinity and gender roles, which in turn can affect women's agency within the agricultural sector. Therefore, it is imperative to acknowledge and bolster women's positions in agriculture as a fundamental step towards engendering equitable development and confronting the systemic obstacles they encounter.

The complex interaction between the roles of women and the productivity of agriculture in Zambia provides notable understandings of socio-economic dynamics as well as cultural views. A considerable part of the agricultural workforce is made up of women, however, they frequently encounter systemic impediments that obstruct their complete involvement and contribution. Particularly, findings show that women partake in a variety of agricultural activities that bolster food security and benefit local economies, concerning the necessity to comprehend the effects of resource wealth on local populations. Additionally, the resilience exhibited by women in managing socio-economic challenges reflects the experiences noted by young Zambian males involved in creative sectors, where aspirations are influenced by both external portrayals and lived experiences, as outlined in (Mulolani, 2019). The data imply that enhancing women's access to resources and platforms for decision-making could remarkably increase agricultural productivity and enhance livelihood results, ultimately contesting the existing patriarchal constructs within the agricultural system of Zambia.

The agricultural landscape within Zambia is notably shaped by the dynamics of gender, which brings forth the necessity for policy interventions that are nuanced and address the specific difficulties encountered by women. An in-depth comprehension of the roles women play elucidates that the reform of land tenure is of significant importance; the formalisation of customary land rights appears to have positive implications for women's perceptions regarding tenure security and their involvement in land administration, as noted in (Zamchiya et al., 2023). Nonetheless, the inequalities that have emerged, including the dominance of men within power structures and the marginal advantages of certification, underscore a pressing requirement for policies that truly empower all women, especially those belonging to marginalised factions. Furthermore, the explicit incorporation of climate-smart agriculture (CSA) as a distinct theme within forthcoming policy frameworks, as suggested in (Douglas et al., 2016), holds the potential to amplify women's engagement in sustainable practices, thus reinforcing their indispensable role in the agricultural future of Zambia. It is imperative for policymakers to prioritise these facets in order to cultivate an inclusive and productive agricultural sector.

In order to bolster the participation of women within the agricultural domain, it is imperative that stakeholders accord priority to the amalgamation of gender-responsive policies and programmes that confront systemic obstacles. A focus on investment in educational endeavours and training specifically designed for women is vital, as this can equip them with the requisite knowledge and skills to enhance agricultural methodologies and boost productivity. Moreover, improving access to financial instruments, such as microloans and cooperative funding, will empower women to make investments in their agricultural enterprises and explore entrepreneurial avenues within the sector. In addition, the cultivation of networks that promote the exchange of knowledge and mentorship among female farmers has the potential to foster heightened motivation and innovation. It is of equal importance to involve men as allies in the promotion of gender parity, which may facilitate a transformation in entrenched societal norms that frequently diminish the contributions of women in agriculture. Taken together, these strategies are capable of engendering a more inclusive milieu that not only recognises but also celebrates the fundamental role women occupy in the sustainability and progression of agriculture in Zambia.

ACKNOWLEDGEMENTS

Support was also received by the project Horizon Europe (HORIZON) 101071300 - Sustainable Horizons -European Universities designing the horizons of sustainability (SHEs)

BIBLIOGRAPHY

- AFULANI P.A., ALTMAN M., MUSANA J. et al., 2017 - Conceptualizing pathways linking women's empowerment and prematurity in developing countries. *BMC Pregnancy Childbirth* 17 (Suppl 2), 338
- ANUNOBI FREDOLINE, 2002 - Women and Development in Africa: From Marginalization to Gender Inequality, DigitalCommons@Kennesaw State University, Sociology, Economics, Political Science
- CHIBUYE MINIVA, 2015 - The impact of rising food prices on household welfare in Zambia, University of Sussex. Thesis. <https://hdl.handle.net/10779/uos.23421968.v1>
- CHIKUMBI LYDIA MWELWA, 2013 - Optimal pricing for national park entrance fees in Zambia, Business Department, School of Economics, Business & Accounting USP'. Masters of Economic, The University of Cape Town
- DOSS CHERYL R., 1999 - Twenty-five years of research on women farmers in Africa: lessons and implications for agricultural research institutions; with an annotated bibliography, y. CIMMYT Economics Program Paper No. 99-02. Mexico
- DOUGLAS WHITE, OSANA BONILLA-FINDJI, LAURA SCHREEG, ANDY JARVIS, 2016 - Climate-Smart Agriculture (CSA) within the Feed the Future Project Portfolio of USAID-Zambia: A CCAFS Deep Dive Review, Wageningen, Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)
- ERNSKE KAYTLIN, 2020 - The Dragon's Neocolonial White Elephant Development: China's Urban Infrastructure in Lusaka, Zambia, Trinity College Digital Repository
- HAALAND MARTE EMILIE SANDVIK, 2021 - Beyond the Law - An Ethnography of Zambian Abortion Politics, The University of Bergen
- JIGGINS JANICE, MAIMBO PAUL, MASONA MARY, 1992 - Breaking new ground: Reaching out to women farmers in western Zambia, Seeds, No. 14. New York: Population Council
- KALUNGA CHOMBA, 2019 - Essays on natural resources and local economies, PhD thesis, University of Glasgow
- LENGOIBONI M., RICHTER C., ZEVENBERGEN J.A., 2018 - An overview of initiatives to innovate land tenure recordation: 2011 to present, World Bank Conference on Land and Poverty, Land Governance in an Interconnected World, Washington, D.C. March 19-23, 2018
- MAREWO M. K., 2023 - Belonging and agrarian labour exchanges in Zimbabwe: navigating between communal areas and fast track villagised settlements. *Africa Spectrum*, 58(2), 113-131
- MENSAH ERIC OPOKU, WOOD SANDRA FREDA, 2018 - Articulations of feminine voices in Ghana's parliament: a study of the Hansard from 2010-2011, *AFRREV LALIGENS: An International Journal of Language, Literature and Gender Studies*, Vol. 7
- MULOLANI HAPPY, 2019 - Empire in Lusaka: hip-hop, young men and masculinity in an African city, Faculty of Humanities, Journalism and Media Studies. Rhodes University
- MUTALE TOBIAS MUBANGA, 2021 - Theorising poverty and inequality in the case of rural women in Mungwi District in Zambia: a grounded theory approach, Doctoral Degree. University of KwaZulu-Natal, Durban
- PARROTT NICHOLAS, CHARLES SSEKYEWA, CHIDO MAKUNIKE, SAMUEL MUWANGA NTAMBI, 2006 - The World of Organic Agriculture - Statistics and Emerging Trends 2006, International Federation of Organic Agriculture Movements (IFOAM), Bonn, Germany and Research Institute of Organic Agriculture FiBL, Frick, Switzerland.
- PAȘCALĂU R., ȘMULEAC L., MILANCOVIC S., STEIGELBAUER L., PĂDUREAN A., BĂRBULEȚ G., 2023 - Importance and impact of modern languages and education in agriculture, *Research Journal of Agricultural Science*, Vol 55, Issue 3
- SMULEAC LAURA, RAUL PASCALAU, ADRIAN SMULEAC, FLORIN IMBREA, ALINA LATO, 2023 - The interconnection between preventing water pollution and addressing climate change,

Proceedings of 23rd International Multidisciplinary Scientific GeoConference SGEM 2023

WOODARD SOPHIA JETELLE, 1986 - Women in Guinea-Bissau and the Cape Verde Islands: their impact in the liberation struggle and the transformation process, Department of Political Science, Atlanta Georgia, USA

ZAMCHIYA PHILLAN, CHILOMBO MUSA, 2023 - Changing customary land tenure regimes in Zambia, implications for women's land rights". Institute for Poverty Land and Agrarian Studies (PLAAS)