Reflecting on Early 21st Century Sustainable Livelihood Projects towards Enhancing Food Security and Resilience in Zimbabwe

Sifelani Ngwenya

Abstract: - Food insecurity (FS) levels are escalating despite heavy investment in food security projects by governments and their complementing partners. This scenario undermines the Sustainable Development Goal of achieving Zero Hunger by the year 2030. This paper assesses the influence of projects implemented between 2000 and 2020 on food security and resilience in Zimbabwe's agro-ecological regions IV and V. The study interrogated the participants' perceptions and experiences, nature, and purpose, and impact (positive and negative) of implemented projects in the four districts of Zimbabwe. A qualitative research methodology was employed, and data was collected using interview questionnaires, observations, and focus group discussions. Agricultural extension officers, chiefs, councillors, Environmental Management Agency (EMA) officers, headmasters, Non-Governmental Organizations, Chief Executive Officers of Rural District Councils were part of the study sample. The selection of the sample was based on: expertise, experience, coordination, and involvement programs for more than two years, and proximity to communities. Main findings show that various forms of projects of varying magnitudes and effects have been implemented to build resilience, ensure FS, and socioeconomically empower communities. However, most of these initiatives have failed to achieve their intended goals due to various factors. For example, lack of community buy-in, stakeholder exclusion, targeting inconsistencies, negative perception of the project, stakeholder commitment, and lack of knowledge development drive. In conclusion, this paper stresses the potential benefits of knowledge development, all-stakeholder commitment, and involvement in sustainable livelihoods projects in Zimbabwe.

Keywords: Early 21st century, Sustainable, Livelihood projects, Food security, and Resilience.

I. INTRODUCTION

Scores of sustainable livelihood (SL) projects aimed towards enhancing Food Security (FS) and resilience has been implemented in Zimbabwe. Despite this effort, food insecurity challenges continue to escalate in an unprecedented manner. In Zimbabwe, an estimated 5.5 million rural Zimbabweans faced food insecurity during the peak of the 2019/20 lean season, with 3.8 million people in need of food assistance (Zimbabwe Vulnerability Assessment Committee [ZimVAC], 2019). A sum of US\$86.9 million was contributed towards mitigating acute food insecurity between October 2019 and March 2020 (United States Agency for International Development [USAID], 2021). This scenario signals that the country is not on track to eradicate hunger by 2030 (FAO et

al., 2018). Food insecurity rise comes in the midst of continued international mitigation initiatives in the form of SL projects (Fossi, 2014; De Waal, 2015). Efforts to reduce food insecurity have not yielded much success (Lunga & Musarurwa, 2016). Therefore, the escalating food insecurity trends undermine the immense challenge of achieving Zero Hunger. Several questions about the heavily financed Government of Zimbabwe (GoZ) and Non-Governmental Organizations (NGOs) food security (FS) projects require answers. Hence, the motivation of this study is to examine the nature, purpose, and impact of the sustainable livelihood projects implemented in 2000 and 2020 on food security and resilience in Zimbabwe's agro-ecological regions IV and V. The findings and recommendations thereof will serve to improve and inform the design of new and effective livelihood programs, as well motivate more research on resilience and food security-related issues.

II. CONCEPTUALIZING FOOD SECURITY AND RESILIENCE

The term food security (FS) has been subjected to an array of debates since its inception (Centre for Food Security [CFS], 2012). Maxwell and Frankenberger (1992) define FS as, secure access to sufficient food for a healthy life. It is to have physical, social, and economic access to sufficient, safe, and nutritious food to meet one's dietary needs and food preferences at all times (Food and Agriculture Organization [FAO], 2000). Food and Agriculture Organization (FAO, 2003) defines FS as the availability of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices. Meanwhile, CFS (2012) views it as freedom from malnutrition risks and having physical, social, and economic access to secure, sufficient, food that meets people's dietary needs and food preferences. This food should promote an active, healthy lifestyle (FAO et al., 2017). A food-secure household shows no evidence of food insecurity (Mishra, 2016). Being food secure hinges on food availability, accessibility stability, and utilization (Ogundari & Awokuse, 2016). In the Zimbabwean context, FS especially in rural communities denotes having enough maize meal and relish, especially vegetables, and enough money to sustain a household to the next harvest time. This definition negates nutrition which is a key component of FS that promotes a healthy life. Warr (2014) criticizes the FS definition for

lacking the quantitative flare that limits systematic studies over time and across environments. The inference is that the definition of FS is too qualitative, hence, its failure to promote quantitative and systematic study. Hanning et al. (2012) add that FS is susceptible to factors such as climate change, dependence on fossil fuels, the loss of biodiversity among others. Therefore, an entity's resilience is compromised in the face of various stressors. The following section provides a brief discussion on resilience.

The concept of resilience has gradually colonized the foreign policy discourse and practice of most Western states, international organizations, UN reports on climate change, disaster preparedness, and development policy (White House, 2015). Resilience is a dynamic and popular multidimensional concept (Malhi et al., 2019; Hiebel et al., 2021). McLean & Guha-Sapir (2013) opines that resilience now frames thoughts on sustainability in development and Disaster Risk Reduction (DRR). Resilience denotes a positive adaptation approach to deal with complex, difficult, and even hopeless situations (Stainton et al., 2019). Resilience is indicated by an entity's resistance levels against adversity, and its ability to maintain normal operations via other means without a decline in the degree of progress (Oshaug, 1985; Ayed et al., 2019). Furthermore, resilience is indicated by an entity's capacities and capabilities to adapt, recover, perform and survive without outside help (Chandler, 2015; Hosseini et al., 2019). Adaptation typically refers to adjustments that entities undergo to deal with difficult situations (Mahdiani & Ungar, 2021). Drawing from the given definitions and context of the study, resilience is adaptive and dynamic strategy, that builds an entity's capacity to withstand shocking and stressful environments that undermine an entity's food security.

Global commitment to ensure food security and resilience agenda has resulted in the design of various charters and frameworks. These include the Hyogo Framework of Action (HFA) indicate years; the Millennium Development Goals (MDGs), the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction 2015–2030 (Lovell et al., 2016). Southern African Development Community's commitment to food security is enshrined in the SADC Disaster Risk Management (DRM) Strategy 2012–2015 and its 2015–2025 Food Security Strategy (SADC, 2014). SADC came up with these instruments to improve regional food security and human wellbeing (International Food Policy Research Institute [IFPRI], 2016). This commitment indicates the region's adherence to the protocols of DRR and respect for human rights.

The government of Zimbabwe and its partners have come up with several policies and sustainable livelihoods projects aimed at promoting food security and resilience (Manyeruke, 2013). Some of the policies include: Land Reform and Resettlement Programme (LRRP), Food and Nutrition Security Policy (FNSP) of 2013, Zimbabwe Agenda for Sustainable Socio-economic Transformation (ZimASSET) 2013-2018. The LRRP changed colonial land ownership laws,

regulations, and broadened agricultural production (Maruve and Chitongo, 2017). The LRRP paved the way for Command Agriculture, a contract farming scheme, a strategy to combat food shortages (Dube, 2020). Zimbabwe demonstrated its commitment to the call to end hunger and reduce malnutrition, by inaugurating the FSNP (Echanove, 2017). After the inauguration of the FNSP, GoZ crafted ZimASSET, a policy towards transforming and strengthening economic sustainability. This policy sought to fully exploitation of internal relationships and linkages of various facets of the economy (Sibanda & Makwata, 2017).

Several studies (Chenga, 2016; Chisango, 2018; Mtonga, 2014) indicate that conservation agriculture (CA), irrigation schemes, cash for assets (CFA), Village Saving and Loans (VSLs), nutrition gardens, small livestock pass-on schemes, loan and credit facility schemes, and Operation Maguta/Inala 2005–2009 projects were implemented by GoZ and its partners. Sazali (2015) indicates that studies conducted between 2003 and 2015 in Zimbabwe show that livelihood interventions improved livelihoods, built resilience, and stimulated rural development.

Therefore, GoZ and partners' implemented policies and projects towards poverty eradication and resilience provided communities with alternative livelihood construction capacities and capabilities, within the precepts of sustainability. Sustainability is regarded as a strategy that ensures, protects, and improves resources management, for the present and future generations (Carney, 1998; Mensah, 2012). The stability of income, social safety nets; basic services, adaptive capacity over time, enhances a household's resilience to food insecurity shocks and stresses. Hence, the entity's ability to secure its food and maintain its current standard of living without undermining the natural resource base.

III. METHODOLOGY

The study sought to understand the early 21st-century sustainable livelihood projects, towards enhancing FS and resilience in Zimbabwe. An interpretive constructivist paradigm was used to guide the research; thus, qualitative data were collected to understand the phenomenon of sustainable livelihood projects. This design was adopted for its systematic and subjective approach that describes the life and gives meaning to human experiences (Patel and Patel, 2019). The study adopted purposive and snowball sampling procedures to pick samples from four districts, Bulilima, Gwanda, Mangwe, and Umzingwane. Purposive sampling was because the chosen were able to provide important information that other choices could not provide (Maxwell, 1996). Snowballing was preferred for being economic, efficient, and effective in accessing susceptible populations (Nderifar et al., 2017). These four districts were selected for sharing similar characteristics with respect to social and cultural aspects, and their susceptibility to hazards. Thus, providing rich opportunities to observe the positive and negative aspects related to FS closely. The participants comprised of district development coordinator (DDCs), Environmental Management Agency (EMA), Rural District Council (RDC) chief executive officers, councillors, traditional leaders (chiefs), NGO managers, and heads of schools. These participants were pivotal to this research for the depth they brought into the study, for example by leading decision-making institutions, institutional gatekeepers, and custodians of communities, knowledge and technical expertise, and experience in the implementation of development projects.

A desktop study was conducted to collect data from secondary sources. It consisted of reading and extracting information from government reports, scientific journal articles, NGO reports, food security policies, UN reports, and policy briefs. Secondary data review was meant to determine and ascertain the most current developments in food security and provide insight into the 21st century livelihood projects. The desktop review was then used to triangulate with data collected using KIIs and FGDs to have robust data. Empirical data was collected through fieldwork observation, structured questionnaires, and focus group discussions. Considering the amount of time needed to carry out interviews, code data, transcribe it and come up with emerging issues, it was determined that 85 participants are an appropriate sample and sufficient for the Central Limit Theorem (CLT) to hold (Ganti, 2021). QSR NVivo, a qualitative computer data analysis program was used to analyse data. The researcher was able to establish order, structure, and meaning to mass collected data and to present it in a systematic manner (Archer, 2018). NVivo software, helped the researcher organize, classify and arrange data to particular themes and patterns to provide insight into unstructured data. This process ensured a coherent, consistent, holistic, and qualityfocused approach that advances constructive research findings and deductions. Ethics standards were followed by explaining the purpose of the research and by giving participants the assurance that confidentiality would be maintained. Participants were assured that the information they provided would be used solely for educational purposes

IV. SUMMARY OF THE FINDINGS

A total of 85 respondents with three distinct age range categories participated in the study. About 29 respondents were aged between 18 and 35 years, 32 were in the 36-50-year-old range, and 24 were over 51 years old. The average age of the study participants was 31 years, and the oldest participant was 84 years old. Gender representation in the study was 45% females and 55% males. A number of questions relating to sustainable livelihood project change were asked in the questionnaire and focus group discussions in order to understand participants' views on their impact on food security and resilience.

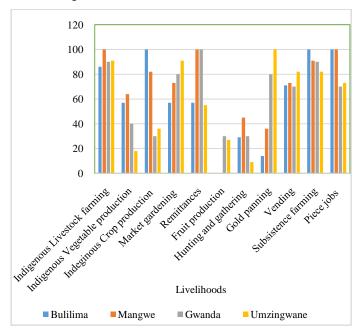
Desktop study findings, as well as that of participants especially FGDs and interviews, were that projects of varying magnitudes and effects have been implemented in the first fifth of the 21st century. The research participants were of the

perception that Agriculture-related projects, feeding programs, poverty eradication, and drought relief programs were predominant in the four districts under study. However, the FGDs participants underlined command agroforestry, developmental fund, seed bank, water, and sanitation projects, which were not identified by the NGO participants. Conversely, NGOs affirmed their implementation of FGDs identified projects, with the addition of stock feed production, basic entrepreneurship, and capacity-building. However, within the domain of implemented projects, the study found most government-designed and implemented projects to be biased towards agriculture, while those by NGOs focus on capacity-building, empowerment, and food distribution respectively. This finding corresponds with project purposes propagated by Dube (2020) "to ensure national food security, reduce poverty and improve rural people's living standards. However, it was observed that the number of projects under implementation was too high, geographically spaced, and too small to positively impact food security and resilience levels. Thus, achieving FS remains a dream, with trends suggesting a downwards trajectory.

Livelihood construction and usage to achieve FS

Empirical findings from FGDs, KII interviews revealed that communities engage in various activities to construct their livelihoods. This dovetails with the findings by (Chenga, 2016; Chisango, 2018) on the implemented projects. Subsistence and livestock farming was found to be the most prevalent means by which people construct their livelihoods. Bulilima was ranked highest in subsistence farming, while Umzingwane was ranked the lowest. Mangwe topped livestock farming, while Bulilima ranked lowest. The indication is that livestock production is a significant component of livelihood and FS. The attachment that communities have with livestock indicates the economic and religious values ascribed to livestock. On one hand, interview participants (key informants) indicated that piece jobs were prevalent in Bulilima and Mangwe districts. Vending has become a major livelihood source in Mangwe and Umzingwane, while mining is prevalent in Gwanda, Mangwe, and Umzingwane. The study observed that an illegal form of mining was done in the Umzingwane district. This livelihood approach directly contradicts the ethos of sustainability (Carney, 1998; Mensah, 2012), in that it destroys the natural resources, thereby affecting the livelihoods of future generations. Figure 1 gives a visual footprint of how communities construct their livelihoods.

Figure 1. How communities construct their livelihoods



The findings in figure 1. were also affirmed in the Focus group discussions, where one FGD participant observed:

"Members of our communities make their livelihoods through many activities, like nutritional gardens, village savings, and lending, receiving remittances in the form of money or groceries, subsistence farming, crafting, brick moulding and livestock."

Through transact walks in the districts, the researcher also observed that brick moulding, curving, and crafting, cross-border trading activities were prevalent, in Bulilima, Mangwe, and Umzingwane. The researcher also observed that illegal currency trading has found its way into the lists of livelihood sources, especially in Gwanda and Mangwe. Currency trading in Gwanda and Mangwe can be attributed to the districts' proximity to border towns and the availability of foreign currency from remittances.

FGD participants revealed that communities use their livelihoods to achieve FS in various ways. For example, communities that are into livestock production use them as draught power, as well as a manure source to improve soil fertility for increased agricultural output. At the same time, livestock provides meat, milk, and money if sold. For example, in Gwanda district an FGDs participant observed:

"Other livelihoods like gold panning and nutritional gardens are self-explanatory, the proceeds they get they consume them. Meanwhile, surplus is sold and income used for other purposes".

The indication is that returns from livelihoods are used to pay school fees, buy productive assets, and other food varieties to addresses the nutrition aspect of FS. The impact of projects on communities is interrogated below. Impact of project on communities

Another finding was that implemented livelihood projects had varying impacts on various communities. Headmasters revealed that school feeding programmes (SFP) helped to improve nutrition levels, attendance and reduced school dropout rates in Bulilima, Gwanda, Mangwe, and Umzingwane districts. The general anticipation was that improved attendance would translate into increased pass rates at their schools also. Meanwhile, NGOs highlighted that some community members in Gwanda and Bulilima acquired the skills to produce stock feed, through which they are now earning a living. In an interview with an NGO participant indicated that project beneficiaries in Gwanda district have adapted the mulching techniques they acquired from Conservation Agriculture (CA) and are now using them in other agricultural activities. This ability to adapt, dovetails with resilience thinking (Stainton et al., 2019). One participant in FGDs in Mangwe indicated that some women were now earning a living through producing morula products for resale. Meanwhile, some ward 16 households in Umzingwane district's diversified their income sources, from credit to income savings and lending projects. This group started with money lending scheme project, that gave birth to a flourishing goats project, which has become their major source of livelihood. These findings are consonant with assertion that Studies conducted between 2003 and 2015 show that livelihood interventions improve livelihoods, build resilience and stimulate rural development (Nchuchuwe & Adejuwon, 2012; Sazali, 2015). Jennings et al. (2013) found that internal savings and landings (ISALs) in Zimbabwe, increased the asset base of participants from the baseline of \$103 in 2009/2010 to \$205 in 2010/2011. Furthermore, Jennings et al. (2013) add the extent to which PRP II had contributed to this change is unclear, as the indicator may have picked up on the benefits of economic recovery, and/or the effects of inflation. While it is true that interventions have had posted positive results, this claim is too general and ambiguous in that it could not be substantiated due to the lack of organized knowledge development and documentation practice, disharmony amongst stakeholders. Some studies (Dengu & Moyo, 2012; Mazvimavi et al., 2010; Mtonga, 2014) reveal that most food security-related projects failed due to exclusion of resource-endowed farmers, the magnitude of some projects, limited support, lack of guarantee, and incapacitation. Therefore, the identified factors disconnect communities from implemented projects, hence the demise. The section below assesses tangible and intangible structures that have been instituted by NGOs in communities.

NGO instituted tangible and intangible structures.

NGO participants indicated that they had set up nutrition gardens, waste collection facilities, market stables, and rehabilitated infrastructure such as dip tanks and boreholes in the four districts. NGOs and focus groups were unanimous on the establishment of committees but differed greatly on other components. Disharmony was observed on the records of

implemented programs. This exposition signals a conflicting angle where implementing stakeholders are aloof and not as actively engaged as they should be. Therefore, it poses serious contentions with respect to stakeholder engagement and commitment to DRR, and documentation of initiatives. On the functionality of the structures and systems, diverse responses were given. There was unanimity from all district FGDs that structures and systems help keep the districts informed about the situation on the ground. However, Umzingwane singled out a communication platform(U-report) as a very significant structure. One NGO observed:

"This platform is currently used to transmit various forms of information. For example, DRR information, early warning awareness, weather forecasts, market forecasts and extension of information to communities" (see Interviewee 45).

The indication is that this communication platform enhances the smooth flow of information within the district. Therefore, the existence of various structures, help create a good platform for community awareness and transmission of information to cover a wider spectrum.

Furthermore, the FGDs revealed that district farmer groups and agricultural extension officers give advice on the approaches, agricultural disseminate early warning information, and give seasonal forecasts to communities. One FGD participant, observed that asset management committees were performing much better than DRR committees" (FGD 1). This view was generally accepted as the position of the district with regard to the functionality of committees. Meanwhile, the Gwanda FDG affirmed the functionality of DRR structures, pointing out they helped save lives in Sibhula Village, ward 8 Gwanda when it had been marooned by floods. One focus group member observed:

"The community used the structures to contact CPU in Harare to flag SOS when Gwanda contacts were down, thus they were evacuated" (see FGD 2).

The views held by FGDs were further affirmed by NGO participants, who highlighted that adding that systems and structures in the areas of operation worked towards promoting gender equity. In an interview, an NGO officer revealed that:

"Promotion of gender equity was an efficiency indicator, as women have been empowered to occupy positions of leadership in DRR and Development committees" (Interviewee 41).

This efficiency bears reference to community consultation, participation, the sense of program ownership, efficient, fast, efficient, and reliable communication platforms. The section that follows interrogates changes by projects on communities

Project induces community and the environmental changes

NGO participants revealed that some implemented projects had changed community lives and the environment in many ways. These bear reference to the asset creation, resilience building, poverty reduction, community capacitation and empowerment. Nutrition gardens were found to have brought some observable human and environmental changes to all the four districts as attested by various participant responses. In an interview, an EMA officer indicated:

"The implementation of gardening projects had a positive influence on the environment, in that they diverted community's attention from interacting with the forests thereby reducing pressure on the environment (interviewee 36)

This implies that sustainable livelihood projects reduced human pressure on the environment by diverting community focus and energy to the projects. Hence, the reduction in land degradation in the mining wards. In a focus group discussion, one participant highlighted that interventions offer alternative livelihoods, thereby reducing reliance on rain for agriculture as an option for survival. During an interview with the Umzingwane DDC, she observed:

"Nutritional gardens help to balance diets. The surplus thereof is sold and it helps to improve the livelihoods. Development projects have resulted in infrastructure development. For example, toilets, rehabilitated dip tanks and boreholes, piped water schemes, provision of stock feed" (interviewee, 23).

The interviewee's perception of nutrition gardens is similar to that of Gwanda FGD, while, infrastructural construction and rehabilitation resonate well with those of Bulilima and Mangwe districts. The FGD participants in Bulilima observed that several dams had been rehabilitated in the district, while in Gwanda district, a decline in malnutrition levels was reported (ZimVAC 2019). The decrease in malnutrition levels was attributed to the influence of nutrition gardens projects. In the Mangwe district, the DDC observed: Tshitshi piped water schemes provided tapped water to the communities (interviewee 17). A councilor in Mangwe district highlighted that providing agricultural implements and training to farmers had equipped some of them to compete at field days. These Field days, have acted as a motivation to engage in production-oriented agricultural activities, at the same time ensuring FS. Despite these positive contributions, various concerns were raised. One CEO revealed that:

"Uncontrolled cutting of trees for fencing nutrition garden and for burning moulded bricks cause the trees to suffer from all directions. As a result, environmental degradation has resulted in the increased soil erosion and siltation of rivers (interviewee 2).

Another concern raised was the fizzling out of DRR structures after donor pull-out or project end, and the nonexistence of DRR structures in other words. Therefore, the nonexistence of DRR structures in some wards indicates the need to seriously mobilize and engage communities and to set up structures and systems.

In light of the changes brought about by the implemented projects, the study found that interventions reduced reliance on rain for agricultural activities, equipped farmers, motivated them to engage in agriculture production, and enhanced the culture and ethic of working. Training of communities has also been credited for inculcating self-sufficiency in some beneficiary households. As a result, these households now use project returns to buy food and pay school fees. However, the resilience levels built by projects are too little to influence food insecurity at the district and national level as evidenced by subsequent failure to bounce back aftershocks, especially those of climatological nature. Therefore, implemented projects have been criticized for perpetuating dependency syndrome and sowing community divisions. Limited financial resources remain a major challenge to project implementation. This is indicative of stakeholder commitment levels to the food security agenda. Another key finding was that communities detach themselves from programs or projects that threaten the communities' existence. Despite implementation of scores of sustainable livelihood projects, communities' susceptibility to food insecurity still persists. This implies that the impacts of the implemented projects are too micro-and household-based with little or no significance vis-à-vis the totality of the community. Furthermore, most of the implemented projects have subsequently collapsed after donors pull out in one way or the other in all the districts. The demise is attributed to a lack of community buy-in as a result of excluding communities in the design of project design or imposition projects and beneficiary targeting inconsistencies. The identified factors are contradicting with the principle of community participation and involvement, that drive sustainable livelihood thinking.

Communities' perception on projects.

The study found that perceptions of the implemented projects across the districts are mixed. One participant in Mangwe district FGD observed:

"Cash transfer programs are viewed sceptically in that they create divisions, as it is not everyone who benefits from it. People always ill-talk, as projects fail to cover everyone. As such, people are frustrated, they believe projects bring more harm than good" (FGD 3).

This view was embraced by other districts as their district position. Meanwhile, one FGD participant in Umzingwane reaffirmed the opinion that cash transfers bring division in communities. These divisions can be detrimental to social capital, a crucial component in the creation of livelihoods. Umzingwane district also highlighted that the reception of small gardening projects was poor, while drought relief programs are well-received (FGD 2). In the Mangwe district's FGDs, expressed satisfaction with the general uptake of the bulk of the projects, and rated it has been very good, and to be greatly appreciated by communities. Meanwhile, in Gwanda district the FGDs view was that the projects had brought relief to communities to avert the challenges that affected them. As a result, these projects had been embraced by communities, especially women and youths, who were slowly making them their reliable source of livelihood. The success of the fodder

project has added another key livelihood source in the district. However, sixty-two percent (62%) of the participants revealed that the incapacitation and demise of most sustainable livelihood programs had strong linkages with lack/limited stakeholder commitment towards the project.

Knowledge development and management

Another finding was that questions that tested districts' documentation, archival practice, and projects coverage proved to be more problematic than anticipated. The questions were partly responded to, answers were too generic, and not substantiated by secondary data. These findings indicate a weakened documentation approach. One FGD participant in the Bulilima district remarked, "For the past 5 years have been here I have seen so much. I can say to a greater extent" (FGD 1). This participant's view was accepted as the district's view. In the same manner, Bulilima participants identified pen feeding program in ward 15 (Vulindlela), Wuwana fodder stock feed production project and the morula harvesting project as the successfully implemented interventions. Meanwhile, in the Gwanda district, FGD participants reported that all the district wards had benefited from livelihood programs. However, in the Mangwe district, one FGDs participant indicated that:

"Amalima in Mangwe project is in 14 wards. If we look in terms of adoption rate is very high, but because of climate change, we are not yet there. There are groups within each ward, that is because we target groups. After the World Vision WASH projects, we formed groups and initiated projects, such as vegetable gardens. If you go to ward 6 something is happening."

This view was supported and adopted as the district's view. However, in the Umzingwane district FGDs, one participant opined: "Considering the fact that there are various programs being implemented I can safely say, "all the 20 wards have benefited to a greater extent". This view denotes that all Umzingwane wards have benefited from implemented projects. It was observed that participants in all districts partly responded to the question, on project coverage. The knowledge development and management approach adopted by districts contradicts the significance that Bhatt (2000) puts on it, that knowledge creation ensures an organization's sustainability and survival.

The indication was that documentation of implemented projects is lacking and done in a haphazard manner, individually and selectively. This finding resonates with Irigoyen (2017)'s assertion, that Zimbabwe's approach to progress and impact monitoring is weak. Therefore, lack of documentation and archiving creates a weak link between the planned and the actual practice. More so, disharmony among stakeholders, signals compromised engagement and commitment. This further, signals a conflicting angle where cooperating stakeholders are aloof and not as actively engaged as they should be. The value of knowledge development and

management cannot be overlooked, hence the need to seriously consider investing it.

V. CONCLUSION

In brief, it is apparent from the discussions that took place in Bulilima, Gwanda, Mangwe, and Umzingwane that projects of varying magnitudes and effects have been implemented to ensure national food security, reduce poverty and improve rural people's living standards. On one hand, the implemented sustainable livelihood projects were found to be too geographically spaced and insignificant to positively contribute to food security and resilience levels. Hence, the downwards food insecurity trajectory. It, therefore, follows that the SLs' success stories are too micro to cause a significant shift towards achieving food security and resilience at the macro level because of the manner in which projects are designed. Implemented projects have received credit for providing livelihood options, building resilience, and promoting gender equity amongst communities. However, this assertion is viewed as too general and ambiguous, because it has not been substantiated by any form of documentation. This is also worsened by poor or lack of organized knowledge development, documentation practice and disharmony amongst stakeholders. On the negative, projects are criticized for fuelling community divisions, compromising engagement and commitment. Another finding was that people tend to violate the ethos of sustainability as they construct their livelihoods.

The study concludes that despite the implementation of scores of sustainable livelihood projects, communities' susceptibility to food insecurity still persists. This reason being that implemented projects are too micro-and household-based with little or no significance vis-à-vis the totality of the community. Documentation remains a critical component of knowledge development and project planning. Thus, it is key for the sustenance and survival of an organization, and a reservoir, from which lessons, best practices, and recommendations can be drawn. More so, the commitment of all forms is a critical resource that enhances the implementation success of any project. Thus, a political mechanism should be put in place to remove obstacles in the inclusionary and participatory planning of SLs projects.

Based on these conclusions, the study recommends, the need for support that builds and sustains the documentation and develop knowledge capacities of all stakeholders. Another recommendation is that all-stakeholder participation, knowledge development, and management be made a top priority in all food security-related efforts. This calls for increased strategic lobbying to win stakeholder commitment towards the support of sustainable livelihood projects, through consciousness-raising, pushing, and pressing the politically dynamic systems for support. Furthermore, the study recommends mandatory incorporation of all stakeholder participation and inclusion in the livelihood projects continuum, to ensure community buy-in, and create a sense of

project ownership amongst. The Government and its development partners need to modify their programs to promote active knowledge development, participation, and inclusion of all stakeholders, hence the study advocates for a paradigm that creates a sense of project ownership and high commitment levels

ACKNOWLEDGEMENT

This study is part of PhD programme supported financially by the North West University in South Africa through two types of bursaries: post-graduate tuition and post-graduate international students.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.

ORCID

Sifelani Ngwenya http://orcid.org/0000-0002-7898-7322

REFERENCES

- [1] Archer, E. (2018). Qualitative data analysis: A primer on core approaches. *Online Readings in Research Methods (ORIM)*, 1-23.
- [2] Ayed, N., Toner, S., & Priebe, S. (2019). Conceptualizing resilience in adult mental health literature: A systematic review and narrative synthesis. *Psychology and Psychotherapy: Theory, Research and Practice*, 92(3), 299-341. doi: 10.1111/papt.12185.
- [3] Bhatt, G.D. (2000). Organizing knowledge development cycle. *Journal of Knowledge Management*, 4(1),15-26.
- [4] Carney, D. (Ed.). (1998). Sustainable rural livelihoods: What contribution can we make? London: Department for International Development.
- [5] CFS (Centre for Food Security). (2012). Coming to Terms with Terminology. Retrieved from www.csm4cfs.org/files/.../cfs terminology 30 april 2012 final d raft.pdf
- [6] Chandler, D. (2015). Rethinking the conflict-poverty nexus: from securitising intervention to resilience. *Stability: international journal of security & development*, 4 (1): 1–14.
- [7] Chenga, N. (2016). Command agriculture: Will Zimbabwe succeed? The Financial Gazette, Retrieved from http://www.financialgazette.co.zw/command-agriculture-willzimbabwe-succeed/
- [8] Chisango, T. F. F., & Chakunda, F. (2018). Challenges and prospects of Zimbabwe's command farming in unlocking the country's smallholder agricultural economy. *International Journal* of Agricultural Economics, 3(4), 76 doi: 10.11648/j.ijae.20180304.13 ISSN: 2575-3851.
- [9] De Waal, A. (2015). Armed conflict and the challenge of hunger: Is an end in sight? IFPRI book chapters (pp. 22-29). Washington, DC: International Food Policy Research Institute.
- [10] Dengu, E., and Moyo, D. (2012). Livelihoods for improved nutrition programme, Chipinge, Zimbabwe. Harare: ACF international.
- [11] Dube, L.M. (2020). Command Agriculture and Food Security: An Interrogation of State Intervention in the Post-Fast Track Land Redistribution period in Zimbabwe. *Journal of Asian and African Studies*, p.0021909620979330
- [12] Echanove, J. (2017). Food Security, Nutrition, Climate Change Resilience, Gender and the Small-scale Farmers: Zimbabwe. CARE Int., Harare, Zimbabwe, Tech. Rep.
- [13] FAO (Food and Agriculture Organization of the United Nations). (2000). The state of food insecurity in the world. Rome: FAO.
- [14] FAO (Food and Agriculture Organization of the United Nations). (2003). The state of food insecurity in the world. monitoring progress towards the World Food Summit and millennium development goals. Rome: FAO.

- [15] FAO, IFAD, UNICEF, WFP & WHO. (2017). The state of food security and nutrition in the world 2017. Building resilience for peace and food security. Rome: FAO.
- [16] FAO, IFAD, UNICEF, WFP and WHO. (2018). The state of food security and nutrition in the world 2018. Building climate resilience for food security and nutrition. Rome, FAO.
- [17] Fossi, F. (2014). Livelihood diversification in Hwange and Binga. District final evaluation. Retrieved from https://www.cosv.org/wp.../ DCI-FOOD-2009-203-344_Final-Evaluation.pdf Date of access: 30 Sep. 2015.
- [18] Ganti, A, 2021 Central Limit Theorem (CLT). [web log post]
 Retrieved from:
 https://www.investopedia.com/terms/c/central_limit_theorem.asp.
- [19] Hiebel, N., Rabe, M., Maus, K., Peusquens, F., Radbruch, L., & Geiser, F. (2021). Resilience in adult health science revisited—a narrative review synthesis of process-oriented approaches. Frontiers in Psychology, 12 doi: 10.3389/fpsyg.2021.659395.
- [20] Hanning, I. B., O'Bryan, C.A., Crandall, P.G. & Ricke, S.C. (2012). Food Safety and Food Security. *Nature Education Knowledge*, 3(10),9.
- [21] Hosseini, S., Ivanov, D. and Dolgui, A. (2019). Review of quantitative methods for supply chain resilience analysis. Transportation Research Part E: Logistics and Transportation Review, (125),285-307.
- [22] IFPRI (International Food Policy Research Institute). (2016). Global Food Policy Report. Washington, DC: International Food Policy Research Institute.
- [23] Irigoyen, C. (2017). Tackling malnutrition in Zimbabwe. Case study. Centre for Public Impact June 23, 2017. Retrieved from https://www.centreforpublicimpact.org/case-study/tackling-malnutrition-zimbabwe/.
- [24] Jennings, M., Kayondo, A., Kagoro, J., Nicholson, K., Blight., N. & Gayfer, J. (2013). Impact evaluation of the Protracted Relief Programme II, Zimbabwe final report. Sheffield: IODPAR.
- [25] Lovell, L., Bahadur, A., Tanner, T. & Morsi, H. (2016). Resilience the big picture. Top theme and trends. London: Overseas Development Institute.
- [26] Lunga, W., & Musarurwa, C. (2016). Indigenous food security revival strategies at the village level: The gender factor implications. *Jàmbá: Journal of Disaster Risk Studies*, 8(2), 1-7. htp://dx.doi.org/10.4102/jamba.v8i2.175
- [27] Manyeruke, C., Hamauswa, S. & Mhandara, L. (2013). The effects of climate change and variability on food security in Zimbabwe: a socio-economic and political analysis. *International Journal of Humanities and Social Science*, 3(6),270-286.
- [28] Mahdiani, H., Ungar, M. (2021). The Dark Side of Resilience. ADV RES SCI 2, 147–155 https://doi.org/10.1007/s42844-021-00031-z
- [29] Malhi, G. S., Das, P., Bell, E., Mattingly, G., & Mannie, Z. (2019). Modelling resilience in adolescence and adversity: a novel framework to inform research and practice. *Translational* psychiatry, 9(1), 1-16. doi: 10.1038/s41398-019-0651-y
- [30] Maxwell, S., and Frankenberger, T. (1992). Household food security: Concepts, indicators, measurements: A technical review. Rome: IFAD/UNICEF,
- [31] Mazvimavi, K., Ndlovu, P. V., Nyathi, P., & Minde, I. J. (2010). Conservation agriculture practices and adoption by smallholder farmers in Zimbabwe (No. 308-2016-5020)
- [32] Mclean, L., & Guha-Sapi, D. (2013). Developing a resilience framework. Brussels. CRED.
- [33] Mensah, E.J. (2012). The Sustainable livelihood framework: a reconstruction. The development review – Beyond Research, 1(1): 7-24.
- [34] Mishra, M.K. (2016). An introduction to environmental security and peace. Raleigh: Lulu publication.
- [35] Mtonga, M. (2014). The impact of small scale irrigation projects on food security: The case of Inkosikazi Irrigation Project, instituted by World Vision in Wards 4 and 5, in the Bubi District, Zimbabwe (Doctoral dissertation).

- [36] Naderifar, M., Goli., H and Ghaljaie, F. (2017). A Purposeful Method of Sampling in Qualitative. Strides in Development of Medical Education, 14(3):1-6 DOI: 10.5812/sdme.67670
- [37] Nchuchuwe, F.F. & Adejuwon, K.D. (2012). The challenges of agriculture and rural Development in Africa: the case of Nigeria. International Journal of Academic Research in Progressive Education and Development, 1(3),45-61.
- [38] Ogundari, K., & Awokuse, T. (2016). Assessing the Contribution of agricultural productivity to food security levels in sub-Saharan African countries (No. 333-2016-14383, pp. 2-26).
- [39] Oshaug, A. (1985). The composite concept of food security. In: W. B. EIDE (ed.), Introducing nutritional considerations into rural development programmes with focus on Agriculture: a theoretical contribution. Oslo: Institute of Nutrition Research,
- [40] Patel, M., & Patel, N. (2019). Exploring Research Methodology: Review Article. *International Journal of Research and Review*, 6(3), 48-55.
- [41] SADC (Southern African Development Community). 2014. *Food and nutrition security strategy* 2015 2025. Gaborone: SADC.
- 42] Sibanda, V. & Makwata, R. (2017). Zimbabwe post-independence economic policies: a critical review. LAP Lambert Academic Publishing.
- [43] Stainton, A., Chisholm, K., Kaiser, N., Rosen, M., Upthegrove, R., Ruhrmann, S., & Wood, S. J. (2019). Resilience as a multimodal dynamic process. *Early intervention in psychiatry*, 13(4), 725-732.doi: 10.1111/eip.12726
- [44] Sazali, R.A.B. (2015). Rural development and sustainable livelihoods: a new perspective on rural-based food processing in north Ghana. Seoul: Duksung Women's University.
- [45] United States Agency for International Development USAID, (2021) Agriculture and Food Security Retrieved from https://www.usaid.gov/zimbabwe/agriculture-and-food-security
- [46] White House. (2015). National security strategy of the United States of America. Washington, DC.
- [47] Warr, P. 2014. Food insecurity and its determinants. Australian Journal of Agricultural and Resource Economics, 58(4):519-537.
- [48] Willig, C. (2014). Interpretation and analysis. In U. Flick, W. Scott, & K. Metzler (Eds.), SAGE Handbook of qualitative data analysis (pp. 136–149). London:
- [49] ZimVAC (Zimbabwe Vulnerability Assessment Committee). (2019). Lean season monitoring report. Harare: Food and Nutrition Council.