DEVELOPING A FRAMEWORK OF SOCIAL AUDIT FOR EVALUATING PROJECTS ON CLIMATE RESILIENT AGRICULTURE IN MALAWI

By

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(2018-11-116)

THESIS

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2020

DECLARATION

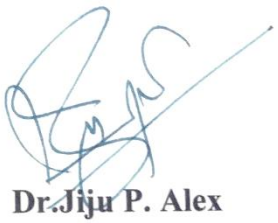
I, **Joseph Timothy Before (2018-11-116)** declare that this thesis entitled "**Developing a Framework of Social Audit for evaluating projects on climate resilient agriculture in Malawi**" is a bonafide record of research work done by me during the course of research and that it has not been previously formed the basis for the ward to me of any degree, diploma, fellowship or other similar title, of other University or Society.

Place: Vellanikkara

Date: 29-12-2020 **Joseph Timothy Before**

CERTIFICATE

Certified that this thesis, titled **"Developing a Framework of Social Audit for evaluating projects on climate resilient agriculture in Malawi"** is a bonafide record of research work done independently by **Mr. Joseph Timothy Before(2018-11-116)** under my guidance and supervision and that it has not previously formed the basis for the award of any degree, diploma, fellowship, or associateship to him.



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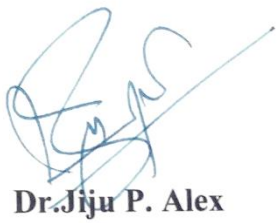
We, the undersigned members of the advisory committee of **Mr. Joseph Timothy Before(2018-11-116),** a candidate for the degree of **Master of Science in Agriculture** with major field in **Agricultural Extension** agree that the thesis, titled **"Developing a Framework of Social Audit for evaluating projects on climate resilient agriculture in Malawi"** may be submitted by Mr. Joseph Timothy Before in partial fulfilment of the requirement for the degree.



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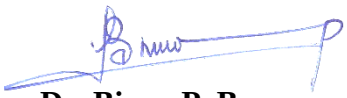

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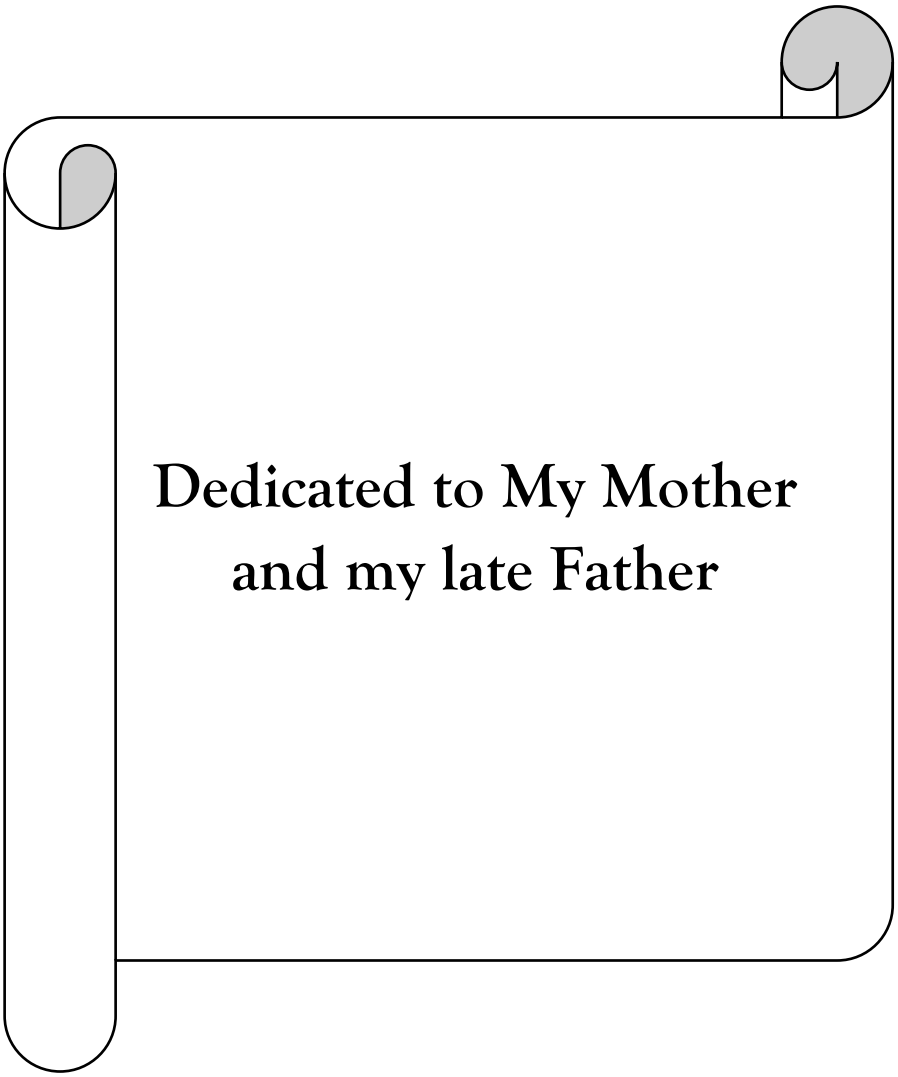
Dedicated to My Mother
and my late Father

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SI. No	Abbreviations	Terms
1	AEDC	Agriculture Extension Development Coordinator
2	AEDO	Agriculture Extension Development Officer
3	ACPC	Area Civil Protection Committee
4	ASHP	Area Stakeholder Panel
5	ELDS	Evangelical Lutheran Development Services
6	EPA	Extension Planning Area
7	FAO	Food and Agriculture Organization
8	NGO	Non-Governmental Organization
9	VCPC	Village Civil Protection Committee
10	VDC	Village Development Committee
11	VSL	Village savings and Loans
12	WFP	World Food Programme

INTRODUCTION

1. INTRODUCTION

Social audit as a tool of evaluating development projects is used by governments in many countries around the world. It has been found to be an efficient tool in evaluating projects in various sectors like health, natural resource management, agriculture, community development, water sanitation and hygiene, land conservation etc. It is quite important that development projects in agriculture are monitored and evaluated based on their goals and objectives, as they are mostly technology driven and heavily weighted in favour of resource endowed environment. Moreover, interventions that are planned as part of agricultural projects are multidimensional. Due to these reasons, as observed by Nanda and Chandel (2003), different control mechanisms have to be devised to ensure transparency, efficiency, effectiveness and accountability in planning and implementing such programmes.

It is important that the beneficiaries of development projects are involved in every step of planning, implementation, monitoring and evaluation. There are several methods of ensuring participation of beneficiaries in development initiatives. Social audit as a tool for this purpose has been regarded by both development and thinkers and practitioners as highly effective as communities get empowered to participate in developmental projects more proactively. Moreover, social audit process would promote transparency, accountability and effective implementation and help reduce cases of corruption. It has also been found to enhance inclusiveness in development process as members of communities get involved in planning and implementation of projects. This would also boost good working relationship between project beneficiaries and implementers and enhance sustainability of project outcomes due to the sense of ownership created among the members of the communities. Social audit has also been reported to be useful in measurement of the efficiency of

implementation, as well as guiding the project implementers to track the project progress.

Social audit is an efficient tool for evaluating development projects as evident from experiences in India. This has been efficiently employed in the implementation of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), as a means of empowering the communities to get involved in evaluating the impact of the scheme. It is reported that use of social audit tool in MGNREGS has helped in reducing cases of stakeholders misusing the resources meant for the beneficiaries of the project. Social audit has also been found to be useful in assessing the social and economic impact of the scheme.

In agriculture and climate resilient projects, social audit has been observed to strengthen resilience capacity as it helps empower local communities rather than foster institutional dependency (Wisner et al., 2003). Despite great contributions towards food security in most countries around the world, agricultural development projects have been affected with number of issues *inter alia* climate change issues like floods and droughts, corruption, lack of participatory evaluation mechanism as well as poor involvement of communities in decision making processes.

The situation is not different in Malawi either and in particular Phalombe district, which faces a number of climate change problems like floods and droughts throughout the year. Being a country that faces extreme climate vagaries, emphasis has been given to climate resilient projects by the government. However, most of such projects are implemented by Non-Governmental Organisations, with the aid of several funding agencies. Although government of Malawi has decentralized the implementation of its programmes to empower local communities to decide, monitor and evaluate developmental projects in their locality, still not much has been done to

empower them. The evidence of this challenge is seen in the interventions of most of the non-governmental organizations (NGOs) working in Phalombe districts. They do not follow decentralisation in principle. Rather, they follow top- down approach while implementing development programmes. As a result of this, beneficiary communities have less power to question or take to task the NGOs implementing development initiatives including climate resilient agriculture projects for the fear of being removed from the project. Exclusion of communities in decision making processes and evaluation of projects has been seen contributing to poor sustainability of various projects. Climate resilient projects also face the same predicament as participation of beneficiaries is even more limited. This has led to a situation wherein the impact of climate resilient agriculture projects does not sustain for much longer as the community does not own the projects.

Across the world, social audit is increasingly becoming an important tool for awareness generation, effective programme implementation, monitoring and evaluation. As stated earlier, it would also help reduce the chances of corruption and enhance grievance redressal. As an interactive process, it would promote coordination among implementers and communities, and ensure follow-up on corrective actions. It is with this background the study has been formulated with the following objectives:

1.1 Objectives of the study

The following are the objectives of the study:

a. To assess the effectiveness of projects on climate resilient agriculture which are implemented in Phalombe, Malawi.
b. To evolve a framework of social audit for evaluating such projects and to analyze the outcomes, constraints and impact of selected projects.

1.2 Scope of the study

The present study aimed at evolving a framework of social audit for evaluating climate resilient agriculture projects and to analyze the outcomes, constraints and impact of selected projects. For this purpose, the key concerns of beneficiaries on transparency and accountability of project implementation were explored. Expectations and experiences of the beneficiaries had also been found out**.** The results of this study would help both government and non-governmental organizations implement climate resilient agricultural projects and programmes more transparently and effectively. A customised social audit may lead to objective evaluation and audit of the progress and impact of development projects on climate resilient agriculture, which would make them contribute more to the improvement of the livelihoods of the poor farmers of Malawi. Moreover, this process would empower the farming community substantially with increased awareness on the modes of implementation of development projects and the objectives of the interventions envisaged.

1.3 Limitations of the study

The major limitation of the study was that due to COVID-19 pandemic, data collection process could not be conducted as planned earlier, and hence the sample size was reduced from the initial **270** respondents to **120** respondents after modification on the technical programme upon the recommendations by the advisory committee. The pandemic also rendered the researcher incapable of travelling to Malawi for the main survey and data collection, for which, the researcher had to hire a research assistant. This would have limited the scope of generalisation of the findings to some extent.

1.4 Organization of the thesis

This study has been presented in five chapters. Chapter one deals with introduction, objectives of the study, scope and study limitations. Literature review that provided relevant information to the study has been presented in chapter two. The methodology that was adopted for the study includes location of the study, selection of projects, selection of respondents, data collection and statistical tools used for the study have been discussed in chapter three. Chapter four deals with the results and discussions of the present study. Summary and conclusion of the study are presented in chapter five. The references, appendices and abstract are provided at the end.

REVIEW OF LITERATURE

2. REVIEW OF LITERATURE

Social audit has been appreciated as an effective tool for evaluating the transparency and accountability of government developments as well as programmes implemented by governmental agencies. This tool has been employed to evaluate programmes in diverse discipline like on agriculture, health, climate change, water sanitation, hygiene etc. It is also used to assess the efficacy with which the implementing agencies work and how far the project beneficiaries have benefited. Social audit would also help us look into the effectiveness with which the programme gets assessed. An attempt has been made to present relevant literature on the evolution, growth, application and relevance of the concept of social audit as a project evaluation mechanism, to set the backdrop for developing suitable methodologies to conduct social audit in different contexts.

2.1 Social Audit: Origin and Evaluation

Many authors and scholars have reported that it was Charles Medawar who pioneered social audit in 1972 when he applied the concept in evaluating policies on medicine, drug safety issues and other cases concerning government and professional accountability thereof. According to Charles Medawar (1978) the idea of social audit started from the principle of democracy in which the duty bearer had to be accountable to the people who chose them as representative at decision making levels.

Since 2000, many private sector and public sector organizations had been using social audit to monitor their projects and programmes. Roy et al, (2001) explained social audit as an effective mode by which people could express their concerns and be heard by those in authority. They observed that increasing

unemployment and loss of jobs as well as lack of social responsibilities had made communities think that it was a way of denying access to power.

Nanda and Chandel (2003) had documented the history of social audit, which had been traced back to 1965 declaration by Government of Indian the meeting held in Calcutta on the social responsibility of corporate sector. The first social audit in India was undertaken by Tata Iron and Steel Company (TISCO) in 1990. Since then, this exercise had been widely confined to the corporate sector to be undertaken at their goodwill. However, the need for social auditing in other developmental sectors was being advocated and, pursued strongly to ensure transparency and social accountability. This became more relevant with empowerment of the local self-governments (Gram panchayats) for implementation of developmental programmes including agricultural interventions.

According to Centre for Good Governance (2005) the word ‘audit’ means ‘to hear’ in Latin. During ancient times, emperors used to employ persons who worked as auditors, with the responsibility to collect information on how the kings were using resources for the development of their kingdoms. The auditors were taking opinions from the citizens to explain and evaluate the behavior of employees, incidences of tax and image of officials working in the kingdom so that the king could make adjustments on ways of implementing various activities.

Deliberating on democratic institutions, Larry (2008) expressed that citizens around the world had become doubtful about the impact of democratic institutions and public policies in their daily lives. Although citizen participation had increased, economic prosperity associated with democratic governance had been slow to come and, in many countries, corruption had increased.

According to Berthin (2011), social audit dated back to the 1970s, when private corporations throughout the British Commonwealth, in several European countries and the United States responded to demands from consumers and environmental movements. Corporations responded to demands by implementing several approaches to actively involve stakeholders and the communities in the decision-making process. Corporations concluded that if they reached out to key stakeholders, they could better understand impact and needs, improve products and services, produce healthier and more productive corporate culture and in turn strengthen their productivity and profits.

In the 1980s the process of social audit started to be adopted in the government sector as well, as part of their response to new trends in democratic governance. This gained momentum in the elections in 1990s, and 2000s. It was widely appreciated as an effective tool to increase transparency and accountability (Berthin, 2011).

Sushmita (2013) explained that ‘Audit’ is a Latin word which is translated as ‘to hear’ in English. Audit is not a recent activity but is a practice that was adopted in the ancient time by rulers to analyze the public feeling towards their rule and policies. The input of masses was then used to alter the policies which also implied including the whole society in the decision-making process of matters of governance.

DFID, (2015) observed that lack of mechanisms to ensure accountability and transparency and growing perceptions about corrupt practices would badly affect investment and economic growth, has eroded the confidence and trust in democratic leaders and institutions.

According to The Hindu (2018) article published People as auditors: on social audit said people made four focused areas of demands as follows: accessibility to records of development expenditure; the presence and accountability of officials who are responsible to answer people's questions; quick grievances redressal, including reallocation of money to its intended purpose; and mandatory 'social audits'.

2.1.1 Definitions of Social Audit

Functionally, social audit of a programme involves application of techniques for conducting value of money audit to ascertain whether they have been implemented efficiently, economically, and effectively. (Chandrasekharan, 1987).

However, The Social Enterprise Partnership (SEP), (1997) defined it more as an evaluation of the consequence of an action. According to them, it is a method of organization to plan, manage and measure non-financial activities and to monitor both the internal and external consequences of the organization's social and commercial operation".

On the other hand, Social Audit has also been conceived as a means to assess an organization's competence with the values and objectives it is committed to promote (Boyd (1998).

This has been reiterated by Usherwood and Liniey (1999) who referred to Social Audit as a "means of assessing the social impact of an organization in relation to its aims and those of its stakeholders". Social audit has also been seen from this perspective of process and the physical, financial and social targets of the projects under consideration.

Nanda and Chandel (2003), defined social audit as an in-depth evaluation of social performance against predefined objectives through independent, participatory or public scrutiny leading to increased accountability and transparency.

According to NREGA website, “Social audit is a process of reviewing official records and determining whether state reported expenditure reflects the actual expenditure on the ground” (2005).

Pearce and Kay (2005) in Raise tool kit found social audit as a process making organizations accountable for their social performance in relation to their social results and ethical behavior for the twin objectives of stakeholders and organization.

For inclusive, Vision foundation (2005), defined “Social Audit as a process in which, details of the resource, both financial and nonfinancial, used by public agencies for development initiatives are shared with the people, often through a public platform. Social Audits allow people to enforce accountability and transparency, providing the ultimate users an opportunity to scrutinize development initiatives.”

More precisely, as reported by FAO (2003), the National Institute of Rural Development & Panchayati Raj (NIRD&PR) explained Social Audit as a “a way of measuring, understanding, reporting and ultimately improving an organization’s social and ethical performance”.

Dash (2012), in his study namely Social Audit: A Gap Analysis Techniques, defined social audit as a process through which duty bearers uphold transparency and accountability to the people. Social audit must analyze the gap between the resources released and actual.

As explained earlier, some authors have explained the relevance of social audit as a control system to regulate diversion from declared objectives.

Manjunatha (2012), explained social audit as a process of checking the extent to which the benefits extended by the government, its agencies and its participants or

organization operating in its economic setup have been realized by their stakeholder by setting up necessary control system in place.

It is emphasized that legislators or government takes full responsibility of providing the necessary social benefits to beneficiaries and also ensuring that funds are not misused to promote sustainable growth and development. Integration of functions of audit with social audit observed to increase the efforts of implementing measures of deviation from the planned objectives their social responsibilities.

Taking a different note on the importance of community participation, Sumarbin (2014) defined social audit as a tool to ensure community participation in the implementation and monitoring of government schemes so that beneficiaries could be made aware of their rights and entitlements. He also regarded Social audit as a means to hold officials accountable for the performance of these schemes.

Reiterating the same dimension, World Bank Institute (2014) further clarified that social audit could make organizations more accountable against their declared social objectives. Accordingly, social audit the prime concern of this process is to ensure better utilization and appropriate use of resources to achieve social as well as other objectives in terms of costs and finances involved.

Effectiveness of this process is voicing the concerns of the voiceless sections of the society through participation and empowerment was included (Tambe *et al.*, 2016).

Similar to earlier observations, Karmakar (2017) characterized Social Audit as a means of performance measurement of an activity or a programme or a policy or an organization.

Almost in line with the observation by Manjunatha (2012) cited earlier, Koner (2017) defined both social audit and social accounting as the process that enabled an

organization to assess and demonstrate its social, economic and environmental benefits.

However, quite different from other dimensions, Dwivedi and Singh (2017), social audit as an accounting tool which allowed organizations to form and establish social relationship which could evaluate the external and internal performance and their social plans.

2.1.2 Definition of climate resilience

Since the work proposed to emphasise the importance of social audit in implementing projects for accomplishing climate resilience, relevant literature that defined to dimensions of climate resilience was also examined. Resilience is primarily to withstand adverse effects of shocks or disturbance, experienced by a person or country.

Resilience is a comparatively composite concept which contains several dimensions. For instance, while Cadell et al. (2001), viewed resilience as "the ability to adapt to, cope with and even be strengthened by adverse circumstances", Ganor and Ben-Lavy (2003), defined it as "the ability of communities to deal with a state of continuous, long-term stress, which caused gaps between environmental stimuli and their functional coping behaviour".

Again, Coles (2004), defined community resilience as community's capacities, skills, and knowledge that allow it to participate fully in recovery from disasters.

Doron (2005) pointed out that resilience "was built in a process of creating and strengthening personal, familial, social, organizational and economic systems to resist and cope effectively in times of stress, threats, crisis and emergencies."

Trusting on collective action and societal dimension, Frankenberger *et al.* (2007), said resilience was the "collective capacity to respond to adversity and change

and maintain function. A resilient community could respond to crisis in ways that strengthened community bonds, resources, and the community's capacity to cope."

Reiterating the significance of acquiring capacities, Norris et al. (2008), defined resilience as a process linking a set of adaptive capacities to a positive trajectory of functioning and adaptation after a disturbance. This definition is important, as it suggests continuation and furtherance of a system that was disturbed by disaster or shocks.

Exploring this concern further, community resilience was explained as process linking a set of networked adaptive capacities to a positive pathway of functioning and adaptation in constituent populations after a disturbance.

Reiterating the significance of attaining resilience in the face of disturbances, Cutter et al. (2008), conceived that resilience as the ability of a social system to respond and recover from disasters and includes those inherent conditions that allow the system to absorb impacts and cope with an event, as well as post-event. They also emphasized on the adaptive processes that facilitate the ability of the social system to re-organize, change, and learn in response to a threat.

Pointing to the relationship between livelihood systems and resilience Walker et al. (2010), defined resilience as the general capacity of a community to absorb change, seize opportunity to improve living standards, and to transform livelihood systems. They underlined that this should happen only by sustaining the natural resources base. As a strategy, it would be determined by the capacity of the community to engage in collective action, problem solving and consensus building to negotiate coordinated response

Similarly, Pasteur (2011) notified that resilience was the ability of a community to resist, absorb, cope with and recover from the effects of hazards and to adapt to long-term changes in a timely and efficient manner.

Integrating all these dimensions, DFID (2011) explained that resilience was the ability of communities to manage change, by maintaining or transforming the living standards in the face of shocks or stresses without compromising their long-term prospects.

Stressing on the significance of working together and connecting to one another, Arbon et al. (2012), they noted that resilient systems are able to function and sustain critical situations, adapt to changes; be self-reliant; and learn from experience to improve itself over time.

Reviewing experiences from across the world, USAID (2012), defined resilience as the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth.

Situating the concept of resilience in real-time stressful conditions like droughts, UNDP Drylands Development Centre (2013), explained that resilience as a transformative process of strengthening the capacity of communities to anticipate, prevent, recover, adapt and/or transform from shocks, stresses and change.

2.1.3 Dimensions of resilience

Resilience has been found to have several dimensions as discussed by authors. Smith (2011) identified four components which needed to be integrated if climate change effects were to be reduced and the components included diversity, sustainable infrastructure and technology, self-organization and learning which could be elaborated as given below:

- **Diversity:** The diversity of livelihoods as well as crop diversity ensure that community becomes more resilient to effects of climate change.
- **Sustainable infrastructure and technology:** Ensuring combination of both the engineered technologies and natural infrastructures will enhance adaptation to vulnerability to climate change effects.
- **Self-organization:** a critical characteristic of resilient, highly adaptive systems that is implemented in practice through participatory governance and empowerment of people in adaptive institutions.
- **Learning:** by making sure that all individuals and institutions are learning and using new skills, technologies, and information on climate change will enhance adaptation to climate change.

It is in this context of self-organization that the process of making demands on the implementation system of projects by the people becomes realistic and the social audit becomes an instrument of change in delivery of climate change resilient agriculture projects.

2.1.4 Principles of Social Audit

Reiterating the importance of monitoring and evaluation of resilience programmes Béné et al. (2015), they emphasized that increase in resilience programming as a result of recurrent shocks and stressors, there is need for tangible evidence to gauge households, communities and system of managing shocks and stressors and how projects interventions have had been designed to build capacities, performed. They pointed out that for resilience projects to effectively improve the needs of communities the following factors should be considered when evaluating the performance, and these include intermediate outcomes indicators (absorptive,

adaptive and transformative capacities), outcomes indicators, impact indicators, and shock and stressor indicators.

Koner (2017) noted that for social auditing to achieve continuously improving performances, eight specific key principles had been identified from Social Auditing practices from across the world. He described that multiple perspective, comprehensive reporting, participation of stakeholders, multidirectional feedbacks, regular reporting, comparison of performance at different periods, verification by authentic sources and disclosure of audited accounts to stakeholders are the key principles of social audit of any programme.

According to APM (2018) in A Guide to Integrated Assurance identified major principles to be considered in any project audit to ensure assurance in audit. They elaborated that the principles of project audit should be independent and supported by organization board, accountable system of governance and reporting, planned coordinated management system of the organization, proportionate to risk potential to assure needs of stakeholders, should also have a risk-based, against an independent evaluation as well as being able to allow stakeholders to report impact identified weakness to be addressed by follow-up.

2.1.5 Significance of Social Audit.

As elaborated earlier, significance of social audit had been reiterated by many authors. According FAO (2013), stated that social audit had been found to enhance community participation, increase transparency and accountability and reduce corruption. More importantly, social audit was also observed to have promoted inclusive development as communities were involved in planning and implementation of projects.

With regard to impact CGG (2005) observed that social audit provided as quick and reliable assessment of the impact of an organization with regards to its objectives and intervention.

Social audit was also found to promote sustainability (Gerschel-Clarke, 2015). At the implementation level, social audit was found to enhance coordination amongst project stakeholders, implementors and community beneficiaries.

2.1.6 Benefits of social auditing in government departments

Davenport (1998), in his discussion paper enlightened that a reputation enhancement of government department and alerting policymakers to stakeholders' concerns are some of the benefits governments department can get from social audit. As part of inclusive participation in development CGG (2005) observed social audit would bring positive organization change, increases accountability to citizens when implementing and sharing information.

Reviewing social audit in relation to health sector, Hausmann-Maula (2011) observed that in epidemiological approaches the tool helps in building the community voice into planning.

Reiterating to benefits of social audit at community level Kumar and Prasuna (2015) expressed that could help people build confidence and trust in the institution they are working with and prevents corruption as community are empowered to demand how government or organizations funds had been used.

Social audit had also been seen to benefit government departments as it assist in prioritization of concerns and expectations of community members. Similarly, Piccard et al. (2015) explained that social audit would increase confidence in areas of social, strengthens relationship between government and citizens and government,

and increase trust by citizens that would lead to more revenue collection through contributions.

Business IAS book (2019 online) revealed that social audit provides relevant information to consumers and other groups on corporate social responsibility as it gives those in authority true reflection of impact of business undertaking.

2.1.7 Uses of Social Audit

Berthin (2011) observed that social audit had been used to assess the physical and financial gaps between needs and resources available for public policies, create awareness among beneficiaries and providers of social and productive services. He also explained that it helps in identifying, controlling and reporting irregularities of funds and power abuse, identify areas for institutional and bureaucratic reforms of institutions.

According to Piccard et al. (2015) they observed that social audit could help to reduce and tackle gender-based imbalances and enable citizens to exercise their rights of participation in development programmes. On management point of view Murphy (2020) highlighted that organization management systems and strategies could be strengthen through social audit process as it promotes integration and promotes free working environment for all gender categories.

2.2.1 Social Audit in India

It was seen that social audit has gained support in India in the wake of implementing several inclusive development programmes. Implementation of Social Audit in India as an integral part of development programmes are a lot to the process of decentralized governance implemented in India.

In India, the first initiative to undertake social audits was started by Tata Iron and Steel Company Limited (TISCO), Jamshedpur in the year 1979. Despite TISCO

being the first to hold social audit under corporate responsibility still at community level the process was not known to people. In 1990 an organization called Mazdoor Kisan Shakti Sangathan, (MKSS) was founded with an aim of strengthen participatory democratic processes, so that ordinary citizens could live their lives with dignity and justice. The MKSS works with workers and peasants in the villages of Central Rajasthan reported by CGG (2005).

According to MKSS website show that the organization was established to ensure transparency and accountability of government and other bodies implementing development programmes for the benefit of community members. This led to first social audit in 1994 in Rajasthan state. A movement of right to information was the major achievement won by the organization which led to beneficiaries having access to information from government schemes and benefits entitled to them.

As reported by Sushmita (2013) Social Audit gained momentum after the 73rd amendment of the constitution relating to Panchayat Raj institutions. During this period of ninth five-year plan (2002-07) the government of India put much emphasis on social audit for effective functioning of Panchayat Raj institutions which gave power and responsibility to Gram Sabha's to conduct Social Audits in addition to its other functions.

According to Roy and Dey (2009) emphasized that empowering the communities to hold accountable and transparency on implementation of programmes would reduce corruption and promote citizen participation in developmental activities.

The government of India constituted a Society for Social Audit, Accountability and Transparency in Andhra Pradesh to eliminate the loopholes in scheme implementation (contractors and middlemen). According to Tambe et al.

. (2016) reported that in the year, 2006 Andhra Pradesh state conducted its first social audit to mark the beginning of Social Audit in India followed by Sikkim in 2008 and Rajasthan in 2009 respectively.

2.2.2 Key steps in the process of Social Audit in India

Centre for Good Governance (2005) pointed out that social audit process has six key steps. These steps include; preparatory activities, defining audit boundaries and identifying stakeholders, social accounting and book-keeping, preparing and using social accounts, social audit and dissemination, and feedback and institutionalization of social audit.

According to Puri and Lahariya (2011) explained that health sector defining the boundaries of social audit, identification and consultation of stakeholders, identifying major issues and data collection, verification of social audit findings, conducting public hearing meeting and institutionalization of social audit are critical steps to be followed for successful implementation of social audit.

Reiterating to steps to be followed in agriculture, Vikaspedia [online] elaborated that in agriculture related development programmes steps like social audit calendar be prepared, selection of village resource persons, training of village resource persons, consolidation of records for verification, actual verification, report preparation, social audit Gram Sabha, conducting public hearing, and village resource persons leading social audit process needs to be followed.

BrainyIAS [online] highlighted that conducting social audit in local bodies steps such as clarification of goal and purpose of elected members be clear, stakeholders identification and their roles, defining performance indicates to enhance quality data collection, conducting regular meetings on performance indicators, follow-up meetings with Panchayat committees, establishment of committed and

independent local groups, and sharing of key findings to people are the crucial steps has to be followed.

2.2.3 Social Audit in Malawi

According to MoFEPD (2007) a range of tools exist to facilitate critical citizen feedback on the performance of poverty reduction initiatives and pro-poor service delivery in the country. These include the Comprehensive Community Score Card Process (CCSCP), the Citizen Report Card (CRC) methodology, Community Statistics Days (CSD), public hearings and grievance handling systems at the local level and communication initiatives that ensure information about performance of policies, programs and services are working for the poor.

Although many NGOs are implementing community resilience building projects in Malawi, farmers generally do not take part in monitoring and evaluation of their projects as they follow top-down approach of monitoring (ACTS Consultancy, 2014). This has left the beneficiaries in an awkward position as they fail to audit the NGOs what they planned before commencing these projects.

FAO (2017) observed that Malawi is perennially susceptible to various natural and economic shocks, including prolonged dry spells, floods, pests and diseases, and high food price volatility. These have eroded the resilience of most poor and vulnerable households and compromised their ability to sustain their livelihoods.

In Malawi social audit tool has not been implemented but a similar project which uses community scorecard which is less like social audit was used called Kalondolondo project. Despite having a range of tools for evaluating programmes and projects in Malawi as a country still lack vigilance in ensuring that communities are taking those in authority accountable.

The Kalondolondo project was only evaluating government projects implemented through Local Development Fund (LDF). The project which was a donor funded project by DFID was implemented to enhance social accountability and transparency to the citizens from the government. Kalondolondo project followed Comprehensive Community Score Card (CCSC) process.

2.2.3 Comprehensive Community Scorecard?

MoFEPD (2007) defined comprehensive community scorecard methodology as a hybrid process or techniques of social audit, community monitoring and citizen report cards. The process is said to be hybrid as it goes beyond coming up with scorecard documents. It varies considering the angle at which the process wants to achieve. Focus group discussion is the most method used to collect data for the scorecard process.

Mwanza and Ghambi (2011) explained that community scorecard process is a social accountability mechanism. It is used to exact social accountability from duty bearers vis-à-vis the state of services in various sectors. The process has several steps aimed at giving feedback to service providers based on experiences of service users which later feed into re-planning processes.

The comprehensive community scorecard process consists of six key stages: (i) Preparatory Groundwork, (ii) Organization of the Community Gathering, (iii) Developing an Input Tracking Matrix, (iv) Generation of the Village Cluster Scorecard, (v) Generation of the Self-Evaluation Score Card by Facility Staff, and the (vi) Interface Meeting between Community and Facility Staff.

2.2.4 Comparison of steps for Social Audit process promoted by different governments and International Organizations

Although Social Audit has been used and promoted by different governments and international organizations worldwide still the steps for conducting the process differ based on the context in which the audit wants to achieve. Below are some of the steps followed and promoted by different governments and international organizations when one wants to conduct social audit in any field of public or organization interest.

Reviewing the process of social audit globally FAO (2003) put forward that there is need to clarify the purpose and goal local elected body, identify stakeholders based on their roles and duties, define performance indicators accepted by all stakeholders, frequent meetings to evaluate indicators, backstopping assignment of action points of social audit with the panchayat committees, establishment of independent trusted groups of local people to verify, judge and provide recommendations, and ensuring there is sharing of social audit findings with local stakeholders.

In India, as stated by CGG (2005) those conducting social audit process the following step by step process needs to be observed which include preparatory activities, defining audit boundaries and identifying stakeholders, social accounting and book-keeping of activities to undertake, the need to prepare and use social accounts, social audit and dissemination as well as getting feedback and institutionalization of social audit.

Mobilization of local leaders, mobilization of community members, selection of project to be subjected to audit, social audit committee establishment, orienting of social audit committee on their roles, information gathering exercise, and providing

feedback to communities and prepare action plan are social audit process procedure (CARE International, 2017).

2.2.5 Differences between Social Audit and Other types of Audits

Social Audit as observed by different authors is often misconstrued as another form of audit, such as a public and/or private and financial but it is a complementary to other audits as explained by different authors.

Berthin (2011) differentiated social audit from other audit by explaining that social audit involves implementing government sectors, NGOs and community members, promotes decision making in every stage of the programme, ensures there is total quality and quantity of public services and provides recommendations for improvement. He said in social audit the expected outcomes are anticorruption, increase transparency and accountability, increase judicial effectiveness to improve government policies.

Reviewing the differences between social audit and public audit IIA (2012) explained that public audit differs from social audit as it does not involve citizens and stakeholder's participation but only contracted public accountants, internal auditors from private companies and it focuses on management of public resources and public sector performance. It is aimed at improving management of public resources in various institutions. They observed that under public audit the expected outcomes include total compliance to laws, regulations for improved public policy, reduced poverty and strengthened institutions.

In contrast to social audit as explained by CIA (2015) private audit involves auditing firms or individuals with expertise without involvement of citizens and stakeholders. It focuses more on any private sector financial statements with a

purpose of helping the private companies improve management and better standards of financial standing of companies.

In the field of accounting financial audits are performed by financial audit and accounting specialists excluding the involvement of stakeholders. Financial audits focus on scrutinizing financial records of any private or public entity following accountancy principles (CAG, 2017). The results of financial statements are independently examined opinion presented accurate and fairly. All statements are verified of reliability and integrity of financial compliance with policies, laws and regulations for efficient use of resources (PwC, 2017).

METHODOLOGY

3. RESEARCH METHODOLOGY

This chapter gives brief description of the methods and procedures followed in the study. The research methodology is concern with the methodology adopted for the present investigation which includes research design, sampling procedure, empirical measurements of variables, collection of data and statistical tools used. This research was conducted based on both primary as well as secondary data collection methods. Primary data was collected through interviews. Schedules were prepared for the field survey after pre-testing of the questionnaires before conducting the actual field survey. In order to obtain the primary data, the interviews were made in the selected villages of the selected EPAs. Data from the published reports of government, journals and research articles has been used as secondary data and prominence to authors have been made within the document as well as in the reference section. Appropriate statistical and mathematical tools -both parametric and non-parametric- were employed for analysis of data to fulfil the various objectives of the study. The research methodology adopted is described under the following headings:

(a) Research design

(b) Sampling procedure

(c) Selection of district

(d) Selection of Extension Planning Areas (EPAs)

(e) Selection of projects

(f) Selection of respondents

(g) Instruments for data collection

(h) Statistical tools used for the study

(i) Selection, operationalization and measurement of variables

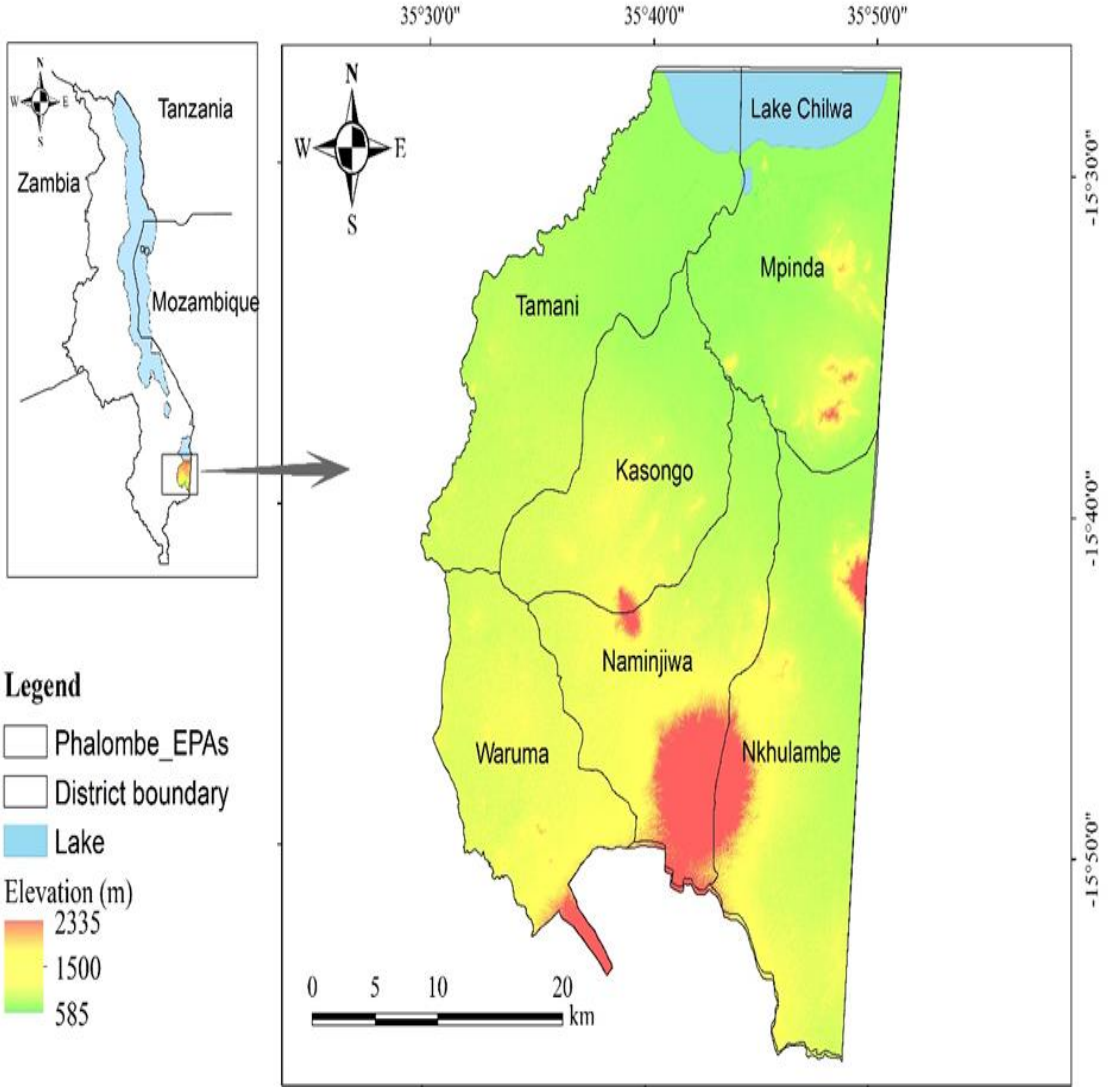
3.1. Research design

According to Kothari and Garg (2019), research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. This study followed *ex post facto* type of research. It is also known as after-the-fact research, a design in which the investigation starts after the fact has occurred without interference from the researcher.

The researcher randomly selected 20 individuals' farmers from each of the six villages in the study area who had participated or are currently participating in climate resilient agriculture projects. Pre-structured interview schedule was used to collect the relevant information from the individuals. Responses of the respondent to each of the items in the interview schedule were recorded.

3.2. Sampling procedure

While purposive sampling was used to select the district, simple random sampling technique was used to select extension planning areas where the study was conducted. Simple random sampling is the sampling procedure which gives each possible sample combination an equal probability of being picked up and each item in the entire population to have an equal chance of being included in the sample (Kothari and Garg, 2019).



Source: Oscar Kambombe

Map of Phalombe showing Extension Planning Areas

3. 3. Selection of the district

Phalombe district in Malawi was purposively selected for the study due to its proneness to floods and droughts year in year out for the past five years. The district is among the fifteen-districts regarded as flood prone areas by government of Malawi (DoDMA, 2019). The district is one of the seven districts making up Blantyre Agricultural Development Division (BLADD). It has six Extension Planning Areas (EPAs) namely: Kasongo, Mpinda, Naminjiwa, Nkhulambe, Tamani and Waruma.

The EPAs are further divided into 57 sections and 456 blocks. The district has 113,903 farm households (Phalombe District Agriculture Office, 2019). Hence the district was selected because under BLADD it is the district most affected by floods every year.

3. 4. Selection of Extension Planning Areas (EPAs)

Out of the six Extension Planning Areas in the district as mentioned earlier in this chapter, three were randomly selected. A simple random selection was performed to give every EPA equal chance of being selected for the study. From each of the three selected EPAs, two villages were selected randomly to make a total of six villages, from which a sample of 120 respondents was drawn at the rate of 20 farmers from each village. The EPAs selected were: Tamani, Kasongo and Mpinda.

3.5. Selection of respondents

From each of the six villages in the study area, 20 respondents were selected randomly from among the beneficiaries of the selected projects on climate resilient agriculture during a given reference period. The sample thus contained 120 farmers who were drawn from Masanza and Chirombo villages in Tamani EPA, Mukakhe and Grevulo in Kasongo, and Likhutu and Mathanda villages in Mpinda EPA. Also, a total of 15 staff members from the three projects (NGOs) to which the respondents were affiliated also participated in the study to triangulate the responses from farmers. From each NGO, four field staff and a manager were administered an interview schedule. The selected respondents were administered structured interview schedules and primary data were analysed using descriptive statistics like tables, percentage, average, mean, standard deviation. Detailed analyses were done using logistic regression and other statistical methods.

3.6. Selection of projects for the study

At the time of the study, Phalombe district had nine climate resilient agriculture projects implemented by both government and donor agencies/non-governmental organizations. Major donor organizations which were implementing climate resilient agriculture projects in Phalombe district were: Food and Agriculture Organization of the United Nations (FAO), World Vision International Malawi/World Food Programme (WPF) Concern Worldwide, Inter Aide, Adventist Development and Relief Agency (ADRA), UNICEF, Evangelical Lutheran Development Services (ELDS), Ministry of Agriculture (MoA) and Circle for Integrated Community Development (CICOD). Refer Annexure 1.

3.6.1 Selection of project beneficiaries as respondents for the study

On account of the limited resources and time available, only the most important projects were selected based on the following selection criteria:

(a) **Coverage area of the project**: Those projects covering more than two EPAs were selected for the study

(b) **Number of beneficiaries**: Projects having greater number of beneficiaries were selected as respondents

(c) **Number of components of climate resilient agriculture projects**: Organizations implementing climate resilient agriculture projects which had more functional components that address issues related to climate change were given priority. It was insisted that the components should directly or indirectly address issues related to climate change through different interventions. The observed interventions included training programmes, livelihood

(d) enhancement, input distribution, cash transfer/food distribution and climate change advocacy.

Based on the above criteria three organizations implementing climate resilient agriculture projects viz. FAO (Strengthening Community Resilience to Climate Change in Malawi in Blantyre, Neno, Zomba and Phalombe districts project), WFP/World Vision (Food for assistant Asset creation Project) and ELDS (Livelihoods Improvement Project)were selected for the study.

3.6.2. Components of selected projects of the study

As mentioned earlier, the selected projects from which the beneficiaries were drawn had the following components; training programmes, food relief/cash transfers (direct), provision of inputs, livelihoods enhancement and advocacy on climate change.

3. 7. Instruments for data collection

3.7.1 Developing and pre-testing of interview schedule

The primary data was collected by using an interview schedule which was formulated based on the objectives and variables of the study. The draft schedule was pre-tested with 25 per cent non-sample respondents before it was administered to actual respondents. The pretesting was done to ensure the validity of the interview schedule under local condition. Upon completion of the pre-testing the survey schedule, modifications were made to improve it with appropriate wordings and contents.

3.7.2 Interviewing and data collection process

A list of farmers randomly selected from each of the selected village was prepared for the survey.

Quantitative and qualitative primary data were collected from the farmers' experience on climate resilient agriculture. The primary data were collected by personal interview of the farmers in the selected villages as well as the field staff of the three implementing agencies. Selected respondents were sensitised about the objectives of the interview and permission to partake in the interview was sought. On the actual day of the survey the respondent's responses were recorded on the pre structured interview schedule.

Plate 1: Farmers in Mukakhe village waiting to be briefed about the survey objectives

Plate 2: Farmers waiting to be briefed on the objectives of the study before actual data collection at Grevulo village

3.7. Analytical Techniques

This section explains the procedures employed in this study to collect and analyse the data. The collected data were scrutinized, cleaned and processed to fulfil the objectives as outlined for the study. Data tabulation was done manually and also with the help of the computer using SPSS package.

3.7.1 Statistical tools used for the study

The study employed following statistical measures for precise and thorough analysis and interpretation of the data. These tools are briefly discussed as follows:

3.7.1.1 Mean

To analyse the trends in data, simple arithmetic mean was employed by using the following formula:

$$(\bar{x}) = \frac{\sum_{i=1}^{n} x_i}{n}$$

Where Xi = i^{th} observation of the relevant variables and n = total number of observations

3.7.1.2 Standard Deviation

For estimating the extent of absolute dispersion in data, standard deviation (S.D) was estimated using the following formula:

$$SD = \sqrt{\left(\frac{1}{n}\right)\sum_{i=1}^{n}(x_i - \bar{x})^2}$$

Where, Xi = the value of the i^{th} observations

$\bar{X}$ = simple arithmetic mean (AM) of observations

n = total number of observations

3.7.1.3 Factor Analysis

Kothari and Garg (2019) defined factor analysis as a technique for observing variables for something fundamental or latent which creates commonality. It seeks to resolve a large set of measured variables in terms of relatively few categories, known as factors.

The factor analysis has many steps to be followed but major steps involved are;

1. Computation of correlation matrix of items
2. Factor extraction
3. Factor rotation
4. Interpreting the rotated factors

In this study, factor analysis specifically Principal Component Analysis was performed using SPSS to reduce variables into major and minor factors that contribute to effectiveness, failure and constraints of projects.

3.8. Selection, operationalization and measurement of variables

The variables for the study were selected based on a thorough review of research articles, journals and different literature. Relevance of variables were judged by a panel of judges comprising of scientists and experts. All the variables that were found to be ‘important’ by more than fifty per cent of the judges were included in the study.

3.9.1 Variables selected for the study

1. Resilience of the beneficiaries of climate resilient projects
2. Perception on shortfalls/failures of projects by beneficiaries and stakeholders
3. Perception on outcomes of projects by beneficiaries and stakeholders

4. Socio-economic characteristics of beneficiaries of climate resilient projects selected for the study
5. Characteristics of funding and implementing agencies

Other observations

6. Constraints faced by beneficiaries and stakeholders
7. Actors of social audit by beneficiaries and stakeholders
8. Attributes to be subjected to framework of social audit

3.9.1.1Socio economic profile of respondents

SI.No.	Variable	SI.No.	Variable
1	Gender	5	Income source
2	Age	6	Family size
3	Marital status	7	Land holding size
4	Education level	8	Average family income per month

3.9.1.2 Characteristics of funding agencies

SI.No.	Variable
1	Organization structure
2	Funding
3	Number of beneficiaries

3.9.2 Variables and their empirical measurement

Variables/Observations	Empirical measurement
Resilience of farmers	Measured using the formula developed by Jansa et al (2017)
Perceived effectiveness reason of projects by beneficiaries and stakeholders	Scale developed by Kumar and Dutt (2000) was adopted with appropriate modifications
Perception on the shortfalls/failures of projects by beneficiaries and stakeholders	Developed for the study

Variables/Observations	Empirical measurement
Outcomes of projects by beneficiaries and stakeholders	Developed for the study
Constraints faced by beneficiaries and stakeholders	Developed for the study
Suitability of actors of social audit by beneficiaries and stakeholders	Developed for the study
Attributes to be subjected to framework of social audit	Developed for the study

3.9.3 Socio economic characteristics

Variable	Empirical measurement
Gender	Scale developed by Krupa (2016) was adopted.
Age	Scale developed by Krupa (2016) was adopted with slight modifications
Marital status	Scale used by Sabira (2016) was adopted with appropriate modifications
Education level	Scale developed by Trivedi (1963) with slight modifications
Income source	Developed for the study
Family size	Developed for the study
Land holding size	Procedure followed by Venkataramaiah (1983)
Average family income per month	Developed for the study

3.10. Description of the method of measuring variables

3.10.1 Composite index for resilience:

Resilience is the ability of an individual, family, community or country to absorb shocks and recover as quickly as possible to normal conditions when the situation improves. The index used by Jansa *et al* (2017) was employed to find out the resilience of the farmers in managing climate change. Eight components that would help the people to be resilient were identified after literature review and discussion with stakeholders implementing climate resilient agriculture projects in Phalombe.

The identified components were: good agricultural practices, village savings and loans, backyard gardening, timely cash/inputs delivery, good land husbandry practices, improvement in nutrition status, improvement in business skills and increasing the capacity to adapt to climate change variables. These components were then given weightage by experts based on the importance ascribed to each of these components in measuring resilience. In total 15 items under all dimensions were identified. Based on eight identified components and matching items, resilience index was calculated by the following formula:

$$\textbf{Resilience index} = \frac{R1 \times W1 + R2 \times W2 + R3 \times W3 + R4 \times W4 + R5 \times W5 + R6 \times W6}{W1 + W2 + W3 + W4 + W5 + W6}$$

- R1 : Mean score obtained on backyard gardening
- R2 : Mean score obtained on improvement in nutrition status
- R3 : Mean score obtained on improvement in business skills
- R4 : Mean score obtained on good agriculture practices
- R5 : Mean score obtained on village savings and loans
- R6 : Mean score obtained on increasing capacity to adapt to climate change
- W1 : Weightage given by experts for backyard gardening
- W2 : Weightage given by experts for improvement in nutrition status
- W3 : Weightage given by experts for improvement in business skills
- W4 : Weightage given by experts for good agriculture practices
- W5 : Weightage given by experts for village savings and loans
- W6 : Weightage given by experts for increasing capacity to adapt to climate change

3.10.2Measurement of beneficiaries' perception on effectiveness, constraints and outcomes of the projects under study

In this study, effectiveness, constraints and outcomes of projects were measured by means of a composite index of the scores on the perception of the beneficiaries on these aspects. To measure the perception of the respondents on effectiveness, constraints and outcomes of projects respondents were asked to record their responses along a continuum which represented varying degrees of importance attributed to each component by the respondent. Perception on effectiveness was estimated by using a five-point continuum ranging from 'very effective' to 'least effective'. Perception on the importance of outcomes was marked on a four-point continuum ranging from 'very important' to 'least important'. Constraints faced by the project were judged using a five-point continuum ranging from 'very severe' to 'least severe'. Index of each component was calculated using the expression given below:

$$\textbf{Composite index} = \frac{\text{Total score obtained}}{\text{Maximum possible score}} \times 100$$

3.10.3 Shortfalls/failures of projects as perceived by beneficiaries and stakeholders

Success of a development programme depends on the number of individuals who have directly and indirectly benefitted out of the project. The shortfalls or failures in implementing various components of the project would reduce the impact of the projects. The reasons for shortfalls/failures of the projects were identified based on direct responses from beneficiaries and project personnel and review of studies on climate resilient projects. The shortfalls were ranked based on the responses recorded as given below:

Shortfalls/failures	Description and Score				
	Highest (5)	High (4)	Medium (3)	Low (2)	Least (1)
Late delivery of food/inputs					
Unfulfilled promises					
Beneficiaries walking long distance					
Heavy workload					
Working long hours					

Note: Figures in parenthesis indicate the score

The tool to rank the constraints was developed exclusively for the study. The shortfalls/failures of climate resilient included late delivery of food/inputs, unfulfilled promises, beneficiaries walking long distance, heavy workload and working long hours.

The frequency of responses was used to estimate the relative importance of the shortfalls in implementing climate resilient projects.

3.10.4 Outcomes of projects perceived by beneficiaries and stakeholders

Every development project that meets beneficiary expectations as well as project goals will have a set of desired outcomes. Outcome is a situation or result that due to the activities involved in the project.

Outcomes of the project have been defined in the light of the objectives of the projects under study and review of the past studies. Perception on the outcomes of projects were measured in four-point scale with score as given below:

Outcome	MI (4)	VI (3)	I (2)	LI (1)
Improvement in food security				
Land husbandry practices (Eg.Ridge alignment, manure)				
Good agricultural practices (one-one planting)				
Increase in culture of savings (VSL)				
Good sanitation				

MI-Most Important, VI-Very Important, I-Important, LI-Least Important

Note: Figures in parenthesis indicate score

3.10.5Ranking of constraints faced by beneficiaries and stakeholders while implementing the projects

Based on review of literature and researcher experience on the area of study a list of five constraints experienced by beneficiaries/respondents of the projects was prepared. The respondents were asked to rank the constraints in the way they perceive its severity. Score was assigned to constraints ranked one for first, two for second, three for third, four for fourth and five for fifth. The assigned score to each constraint responded by respondents was worked out by performing non-parametric test coefficient of concordance to find out the concordance among the respondents on the constraints.

Table 3.10.5 Severity of constraints faced by beneficiaries

Constraint	**MS (1)**	**S (2)**	**M (3)**	**LS (4)**	**L (5)**
Late input delivery					
Small quantities of food					
Drought/floods					
Drying up of water sources					
Poor involvement of beneficiaries					

MS-Most Severe, S-Severe, M-Medium, LS-Less Severe, L-Least severe

Note: Figures in parenthesis indicate the score

3.10.6 Actors of social audit by beneficiaries and stakeholders

In countries where social audit has yielded better results like India, a number of players are involved in the execution of the process. Actors involved in social audit could be external experts, non-governmental organizations, beneficiaries or community members that contribute to the successful implementation of activities to achieve the desired goals. Prospective actors of social audit to evaluate climate resilient development projects were identified based on the review of various past

studies. The importance of actors to participate in social audit process was estimated by using a six-point scale with scores as given below:

Table 3.10.6 Preference of actors to be included in the process of social audit as expressed by beneficiaries and stakeholders

Actor	Score				
	SA (6)	**A (5)**	**N (4)**	**D (3)**	**SD (2)**
Beneficiaries					
NGO staff					
AEDO, AEDC					
Lead Farmer					
Village Headman					
Community Development Assistant					
VCPC, ACPC, VDC, Community policing, ASHP					

SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree, NA-Not Applicable. Note: Figures in parenthesis indicate the scores

The scale was developed exclusively for the study. The probable actors to be part of social audit process for climate resilient agriculture projects include beneficiaries, NGO staff, AEDO and AEDC, lead farmers, village headman, Community Development Assistant and VCPC, ACPC, VDC, community policing and ASHP. The preference of respondents about the actors of social audit were recorded across a five point continuum.

To check the concordance of the results given by each respondent on the actors in social audit process, test on coefficient of concordance was performed.

3.10.7Attributes to be subjected to social audit

In order to carry out social audit there should be a framework of attributes that have to be audited. Attributes are characteristics that contribute to the success of project or programme which can be observed and monitored. The attributes of development projects on climate resilience that could be subjected to audit were identified based on review of literature and experiences of beneficiaries and

programme personnel. Attributes of the framework of social audit were judged for their suitability on a six-point scale as given below:

Table 3.10.7 Scoring of attributes to be subjected to framework of social audit

Actor	Score					
	SA (6)	**A (5)**	**N (4)**	**D (3)**	**SD (2)**	**NA (1)**
Income of beneficiaries						
Food security						
Availability of funds						
Adoption of GAP						
Adoption of climate resilient technologies						
Gender Inclusion						
Percentage of utilizing funds						

SA-Strongly Agree, A-Agree, N-Neutral, D-Disagree, SD-Strongly Disagree, NA-Not Applicable
Note: Figures in parenthesis indicate the scores

The scores of suitability were calculated based on the scores assigned to each attribute by the respondents. Agreement of the beneficiaries on the suitability of attributes to eb included was estimated by estimating the coefficient of concordance.

3.10. Socio- economic characteristics of the beneficiaries of the programme

3.11.1 Gender

Gender was conceptualized as the status of being male or female by observing the physical appearance the time the respondents were responding to the interview schedule.

The present study used a scale which was adopted by Krupa (2016) and the results were interpreted in frequency and percentage analysis. The respondents were classified as male and female as follows:

Variable	Score
Male	1
Female	2

3.11.2. Age

Age was conceptualized as the chronological age of the respondent in years completed at the time the study was conducted and measured in years, the respondent has completed from birth. The present study used a scale which was adopted by Krupa (2016) with slight modification and the results were interpreted in frequency and percentage analysis. The respondents age was classified as follows:

Score	Range
1	18-24 years
2	25-35 years
3	36-40 years
4	41-45 years
5	46-50 years
6	51-55 years

3.11.3. Marital status

Marriage is considered as a crucial social institution in a society. The status of being in a marriage can influence how one changes in perception and attitude towards participation in developmental activities including climate resilient agriculture projects.

The present study used a scale which was adopted by Sabira (2016) with slight modification and the results were interpreted in frequency and percentage analysis. The respondent's marital status was measured and coding the status as:

Marital status	Score
Single	1
Married	2
Widow	3
Separated	4
Divorce	5

3.11.4. Education level

Educational level was operationalised as the number of years a person has completed formal years of education, a person has received. The score was assigned as per scale followed by Trivedi (1963) with slight modifications to suit Phalombe district conditions. The results were interpreted using frequency and percentage analysis.

Level of education	Score
Never attended	1
Primary	2
Secondary/high school	3
Tertiary (Diploma/Degree)	4
Other (Adult literacy)	5

3.11.5. Income source

The income source was operationally defined as a profession/avocation of the respondent which formed the major source of earning for the family. The income source of the respondents was categorized as below:

Income source	Score
Farming	1
Small scale business	2
Fishing	3
Casual labour	4
Unskilled labour	5
Skilled labour	6
Farming and small-scale business	7
Farming, small scale business, fishing	8
Other (Relative)	9

3.11.6. Family size

In the present study family size was operationally defined as the total number of members in the family of the respondent at the time of study.

The family size was categorised into five as presented below. Frequency and percentage were used for data analysis and graphical representation

Family size	Score
1-2	1
3-4	2
5-6	3
7-8	4
9-10	5

3.11.7. Land holding size

Land holding size was defined as the total area owned by the respondent at the time of study. In this study, farm size was measured by adopting the method of Venkataramaiah (1983) with slight modification suitable to the location of the study. The scoring used for measuring land holding is given below. Data was analysed using frequency and percentages.

Land holding size	Score
Less than 1 acre	1
1-2 acres	2
3-4 acres	3
5-4 acres	4
7-8 acres	5
Other (specify)	6

3.11.8. Average family income per month

Monthly average income was operationally defined as the total earnings for the month including income from agriculture and non-agriculture sources as reported by the respondent. In the present study, scores were assigned to each income category as given below:

Average income per month	Score
Less than K5000 (Less than Rs500)	1
K5001-K10000(Rs501-1000)	2
K10001-K15000(Rs1001-1500)	3
K15001-K20000(Rs1501-2000)	4
K20001-K25000(Rs2001-2500)	5
K25000 above (Rs2500 above)	6

RESULTS AND DISCUSSION

4. RESULTS AND DISCUSSION

This chapter presents and discusses the key findings of the study. As described earlier, the study had two main objectives: assessing the effectiveness of projects on climate resilient agriculture which were implemented in Phalombe, Malawi and evolving a framework of social audit for evaluating such projects and to analyse the outcomes, constraints and impact of selected projects. The results, facts and vital information gathered are detailed below under the following sub-titles.

4.1. Demographic and socio-economic characteristics of beneficiaries

4.2. Project affiliation of beneficiaries

4.3. Services offered by projects known and availed by beneficiaries

4.4. Effectiveness of the projects as perceived by beneficiaries in terms of livelihood enhancement, training programmes, input distribution (seed quality) and cash transfer/food relief distribution.

4.5. Components of climate change to be included in projects

4.6. Effectiveness of projects perceived by beneficiaries in terms of different project components

4.7. Awareness on Kalondolondo/social audit

4.8. Participation in social audit process

4.9. Perception on the need of Social Audit

4.10. Components to be subjected to social audit

4.11. Comparison of projects effectiveness

4.12. Perceived/experienced reasons for effectiveness

4.13. Perceived reasons for shortfalls/failure of projects

4.14. Outcomes of the project perceived by beneficiaries

4.15. Constraints faced by beneficiaries

4.16. Actors to be part of social audit as perceived by beneficiaries

4.1. Demographic and socio-economic characteristics of beneficiaries

The consolidated results related to demographic and socio-economic characteristics of beneficiaries are shown in Table 4.1.

Table 4.1: Demographic and socio-economic characteristics of beneficiaries (n=120)

Variable	Scale	Frequency	Percent
Gender	Male	26	21.7
	Female	94	78.3
Age	18-24 yrs	8	6.7
	25-35 yrs	40	33.3
	36-40 yrs	17	14.2
	41-45 yrs	14	11.7
	46-50 yrs	19	15.8
	51-55 yrs	22	18.3
Marital status	Single	1	0.8
	Married	86	71.7
	Widow	15	12.5
	Divorce	18	15.0
Education level	Never attend	8	6.7
	Primary	101	84.2
	Secondary/high school	10	8.3
	Others (Adult Literacy)	1	0.8
Variable	**Scale**	**Frequency**	**Percent**
Income source	Farming	80	66.7
	Small scale business	7	5.8
	Fishing	1	0.8
	Casual labour	13	10.8
	Unskilled labour	1	0.8
	Farming and small-scale business	16	13.3
	Others (Remittance)	2	1.7
Family Size	1-2	6	5.0
	3-4	38	31.7

Variable	Scale	Frequency	Percent
	5-6	52	43.3
	7-8	19	15.8
	9-10	5	4.2
Land holding size	Less than 1 acre	54	45.0
	1-2 acres	65	54.2
	3-4 acres	1	0.8
Average family income per month	Less than K5000(Less than Rs500)	4	3.3
	K5001-K10000(Rs501-1000)	24	20.0
	K10001-K15000(Rs1001-1500)	26	21.7
	K15001-K20000(Rs1501-2000)	16	13.3
	K20001-K25000(Rs2001-2500)	17	14.2
	K2500 above (Rs2500 above)	33	27.5

Details of the socio-economic characteristics of the respondents involved in the survey are presented and analysed below:

4.1.1. Distribution of respondents based on gender

Distribution of respondents based on gender is given in Table 4.1.1. It is evident from the distribution that a vast majority of respondents were females.

Table 4.1.1. Gender of respondents

(n=120)

Gender	Frequency	Percentage	Cumulative Percentage
Male	26	21.7	21.7
Female	94	78.3	100.0
Total	120	100.0	

Source: survey results

The sample consisted of 96 females out of the 120 respondents representing 78.3 per cent and 26 males representing 21.7 per cent. All the participants of the survey belonged to one or two or all the three projects which were selected for the study. These findings suggested the predominant participation of women in climate resilient agriculture projects in Malawi, a trend which requires to be observed

seriously from the policy perspective. Distribution of respondents based on gender is given in Fig. 1

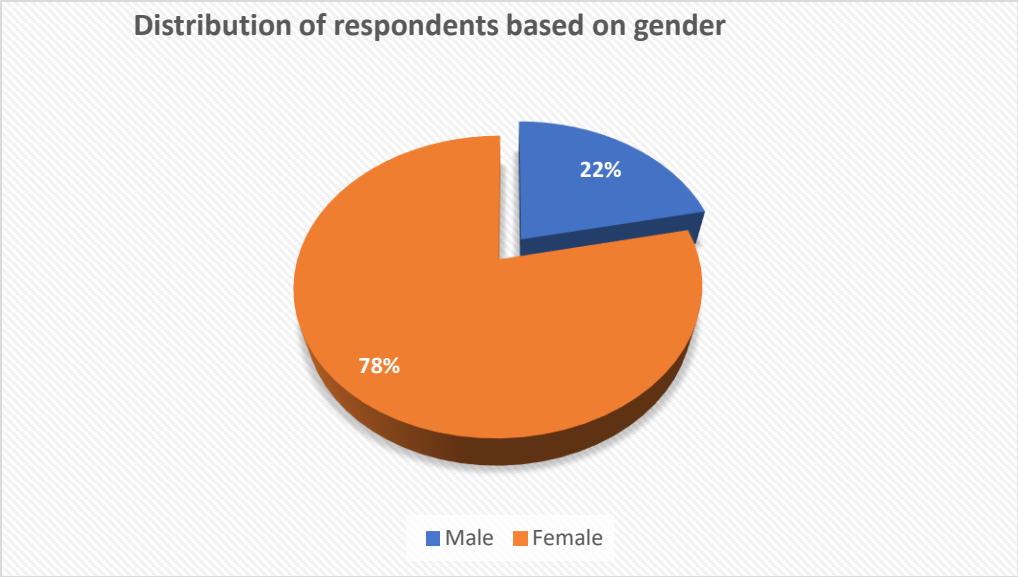


Fig 1 Distribution of respondents based on gender

Similarly, distribution of the beneficiaries based on different age groups is explained below:

4.1.2. Distribution of beneficiaries based on age groups

Distribution of the selected sample of beneficiaries based on age categories as given in Table 4.1.2 showed that 33.3 per cent of the beneficiaries belonged to the age group of 25-35 years, followed by the age group 51-55 years (18.3 %) and 46-50 years (15.8%).

A much younger group with 36 to 40 years age accounted for 14.2 per cent of 120 participants who were interviewed for the survey. While 14 respondents belonged to 41 to 45 year (11.7%), only eight respondents fell within the age group 18 to 24 years which only accounted for 6.7 per cent. Distribution of respondents based on age is given in Table 4.1.2

Table 4.1.2 Age of respondents for the survey on climate resilient agriculture in Phalombe(n=120)

Age	Frequency	Percent	Valid Percent	Cumulative Percent
18-24 yrs	8	6.7	6.7	6.7
25-35 yrs	40	33.3	33.3	40.0
36-40 yrs	17	14.2	14.2	54.2
41-45 yrs	14	11.7	11.7	65.8
46-50 yrs	19	15.8	15.8	81.7
51-55 yrs	22	18.3	18.3	100.0
Total	**120**	**100.0**	**100.0**	

Source: Survey results

Cumulatively, 54.2 per cent of the respondents was observed to be in youthful age group taking part in climate resilient agriculture projects compared to 45.5 per cent who belonged to the age range from 41 to 55 years. This pronounced representation of younger people in the projects on climate resilient agriculture in Phalombe district, could also indicate the presence of distinct socio-economic reasons which drive the younger population to get involved in agriculture. This is presumably due to the lack of other options of livelihood and avenues for employment in the district. Though it is to be appreciated that youth are attracted towards agriculture, it should be ensured that they are given feasible options for livelihood to sustain their participation in agriculture.

4.1.3. Distribution of beneficiaries based on marital status

Distribution of beneficiaries based on marital status as given in Table 4.1.3 revealed that 71. 7 per cent of the farmers involved in climate resilient projects were married. The study also showed that 18 respondents which present 15 per cent were divorced while 15 respondents (12.5%) were widows. Out of the total respondents, only one preson was single (0.8%).

Table 4.1.3. Distribution of project beneficiaries based on marital status (n=120)

Marital status	Frequency	Percent	Valid Percent	Cumulative Percent
Single	1	0.8	0.8	.8
Married	86	71.7	71.7	72.5
Widow	15	12.5	12.5	85.0
Divorcee	18	15.0	15.0	100.0
Total	120	100.0	100.0	

Source: Survey results

Being a conventional society with strong family ties, most individuals were found to be married. This pointed to the fact that they required more food and other resources than households/families that were single. Individuals with families are most likely to be involved in agricultural development projects as a way of obtaining food and other resources with which they could support the family members. It is to be noted that widows and divorcees together accounted for 27.5 per cent of the total beneficiaries, which is a considerable proportion of households, mostly led by women. These families deserve greater focus, as the responsibility of the family is with the women heads.

4.1.4. Distribution of beneficiariesof climate resilient projects based on education level

Distribution of beneficiaries based on education level showed that majority of beneficiaries who took part in climate resilient agriculture projects activities had not attained secondary education. Only 10 out of the 120respondents (8.3 %)had attained secondary education(See Table 4.1.4).

Table 4.1.4: Distribution of beneficiaries of climate resilient projects based on education level (n=120)

Education levels	Frequency	Percent	Valid Percent	Cumulative Percent
Never attend	8	6.7	6.7	6.7
Primary	101	84.2	84.2	90.8
Secondary/high school	10	8.3	8.3	99.2
Others (adult literacy)	1	.8	.8	100.0
Total	**120**	**100.0**	**100.0**	

Source: Survey results

Proportion of those who had never attended school and studied only up to primary school was found to be as much as 90.8 per cent. Only one person had undergone adult literacy education (0.8 per cent). Proportion of beneficiaries who had attended secondary/high school was only 8.3 per cent. Level of education is an important factor that would influence the manner in which beneficiaries get involved in development interventions. Here, it could be assumed that since vast majority of the respondents were having lower educational status, participation of beneficiaries in project implementation would be invariably low. As it was known that all the three NGOs selected for the study did not apparently prefer decentralisation and participation in project implementation, it is unlikely that less educated beneficiaries could at least be made aware of the development programmes in advance. As understood later, collecting feedback from beneficiaries on effectiveness of the programmes was also quite unlikely. Farmers who are more educated might demand better transparency regarding project implementation and hold the implementing agencies accountable for their lapses and inefficiencies.

4.1.5. Distribution of the beneficiaries of climate resilient agriculture projects in Phalombe based on income source

Distribution of beneficiaries based on income sources showed that as much as 66.7 per cent of beneficiaries who had taken part in climate resilient agriculture projects activities had depended on farming as the main source of their income, followed by farming cum small scale business (13.3 %) and casual labour (10.8 %). See Table 4.1.5 for details.

Table 4.1.5: Distribution of the beneficiaries of climate resilient agriculture projects in Phalombe based on income source

(n=120)

Income source	Frequency	Percent	Valid Percent	Cumulative Percent
Farming	80	66.7	66.7	66.7
Small scale business	7	5.8	5.8	72.5
Fishing	1	0.8	0.8	73.3
Casual labour	13	10.8	10.8	84.2
Unskilled labour	1	0.8	0.8	85.0
Farming and small-scale business	16	13.3	13.3	98.3
Others (Remittance)	2	1.7	1.7	100.0
Total	**120**	**100.0**	**100.0**	

Source: Survey results

Only 5.8 per cent of the respondents depended on small scale business for their day-to-day life. Only two individuals, representing just 1.7 per cent of the sample were found to depend on gifts from relatives or remittance. Only 0.8 per cent reported that fishing and unskilled labour were the sources of income. A pictorial representation of the distribution is given below (Fig 2):

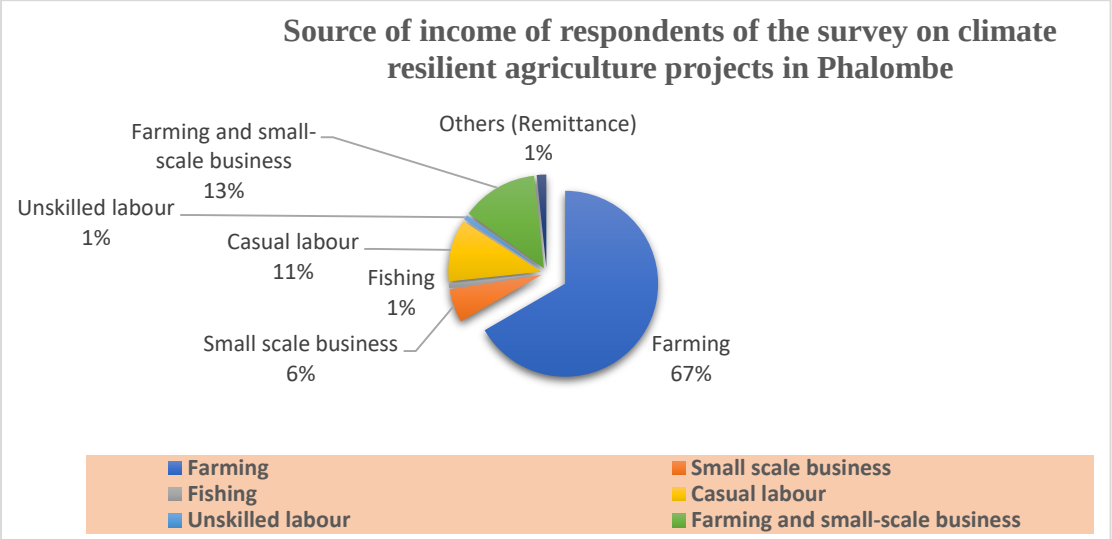


Fig 2 Distribution of project beneficiaries based on source of income

4.1.6. Distribution of the beneficiaries of climate resilient projects in Phalombe district based on family size

Beneficiaries of climate resilient projects in Phalombe district were categorised based on family size as given in Table 4.1.6. It is evident from the table that as much as 43.3 per cent of the beneficiary farmers had family size of 5 to 6 members.

Table 4.1.6 Distribution of beneficiaries of climate resilient projects in Phalombe district based on family size (n=120)

Family size	Frequency	Percent	Valid Percent	Cumulative Percent
1-2	6	5.0	5.0	5.0
3-4	38	31.7	31.7	36.7
5-6	52	43.3	43.3	80.0
7-8	19	15.8	15.8	95.8
9-10	5	4.2	4.2	100.0
Total	**120**	**100.0**	**100.0**	

Source: Survey results

A total number of 38 respondents representing 31.7 per cent had family size of 3 to 4 members and about 15.8 per cent had family size of 7 to 8 members. Only six respondents (5 %) were reported to have family size of 1 to 2 members. Similarly, only 4.2 per cent of families had large family size, with 9 to 10 members.

Size of families may have serious implications on income levels and food availability of households. This is an important factor that would determine the dependence of families on development projects. In countries like Malawi, which have predominantly agrarian economies and large sized families, development projects implemented by various agencies will have to target beneficiaries by observing principles of equity. Availability of food for the members of large families with less resources need to be scrutinised closely to find out issues of discrimination based on gender, age, physical ability etc. A pictorial representation of the distribution of beneficiaries of climate resilient projects based on family size is given in Fig 3.

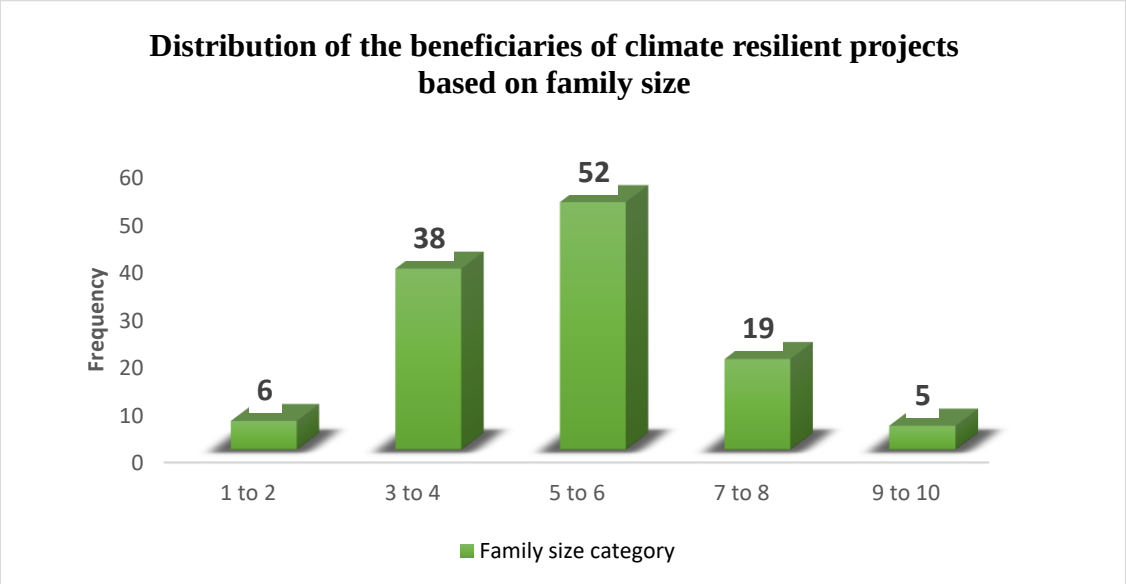


Fig 3. Distribution of the beneficiaries of climate resilient projects based on family size

4.1.7. Distribution of the beneficiaries of climate resilient projects in Phalombe District based on holding size

Among the several socio-economic factors that determine the participation of farmers in development projects, size of holdings is an important factor that determines the propensity of farmers to be part of development interventions. This is because of the magnitude of interventions that would vary according to farm size. Usually, farmers with larger farm size are likely to have more access to development agencies due to their varied requirements.

Details of the distribution of beneficiaries based on land holding size are given in Table 4.1.7

Table 4.1.7: Distribution of the beneficiaries of climate resilient projects based on size of land holding (n=120)

Land size	Frequency(N)	Percent	Valid Percent	Cumulative Percent
Less than 1 acre	54	45.0	45.0	45.0
1-2 acres	65	54.2	54.2	99.2
3-4 acres	1	.8	.8	100.0
Total	120	100.0	100.0	

Source: Survey results

Distribution of beneficiaries based on size of land holding of the beneficiaries of selected climate resilient projects showed that 54.2 per cent of the respondents had holdings with size varying from 1-2 acres. A considerable proportion (45 per cent) of beneficiaries were found to have only less than one acre. Only one person was reported to have land holding size in the range of 3 to 4 acres representing 0.08 per cent of the beneficiaries.

Cumulatively, 99.2 per cent of beneficiaries were found to have only very small land holdings with an area of less than two acres. This shows that the beneficiaries are resource poor, who would find it extremely difficult to generate sufficient income from their holdings. This implies that household's food availability would not be steady throughout the year. Impact of climate change would further compound this issue. This would warrant proper management of farming activities and diversification of crops and enterprises to sustain the livelihood options.

The average size of small farms in Malawi is 0.5 ha, and 1.4 ha for other farms. About 74.6 per cent of farmers are small holders while 25.4 per cent only belong to higher category. Only 13 percent of the overall agricultural output is sold by Malawian family farms, highlighting the subsistence-oriented nature of the countries' smallholders. These facts were found to reiterate the observations of the study(FAO, 2018)

4.1.8. Distribution of the beneficiaries of climate resilient projects in Phalombe district based on family income

Distribution of the beneficiaries of climate resilient projects as shown in Table 4.1.8 revealed that all the households included in the sample had family income less than K25000, equivalent to INR 2500, which showed the poor socio- economic status of the beneficiaries of the climate resilient projects in Phalombe district.

Table 4.1.8 Average family income per month for the respondents on the survey climate resilient agriculture in Phalombe (n=120)

Average income per month	Frequency	Percent	Valid Percent	Cumulative Percent
Less than K5000 (Less than Rs500)	4	3.3	3.3	3.3
K5001-K10000(Rs501-1000)	24	20.0	20.0	23.3
K10001-K15000(Rs1001-1500)	26	21.7	21.7	45.0

Average income per month	Frequency	Percent	Valid Percent	Cumulative Percent
K15001-K20000(Rs1501-2000)	16	13.3	13.3	58.3
K20001-K25000(Rs2001-2500)	17	14.2	14.2	72.5
K25000 above (Rs2500 above)	33	27.5	27.5	100.0
Total	**120**	**100.0**	**100.0**	

Source: Survey results

To analyse further, 33 farmers which represented 27.5 per cent had an average monthly income of more than K25, 000 (equivalent to Rs. 2500). Out of the total respondents, 26 respondents representing 21.7 per cent were found to earn K10001-K15000(Rs1001-1500) a month on average. While 24 respondents representing 20 per cent were found to earn K5001-K10000(Rs501-1000)a month as income, 17 respondents (14.2 %)reported that they earnedK20001-K25000(Rs2001-2500) and 16 respondents (13.3%) were found to earn K15001-K20000(Rs1501-2000).

Only 4 respondents representing 3.3 per cent were found to earn less than K5000 (Less than Rs500) income per month. See Fig 4 for the pattern of distribution of respondents based on average family

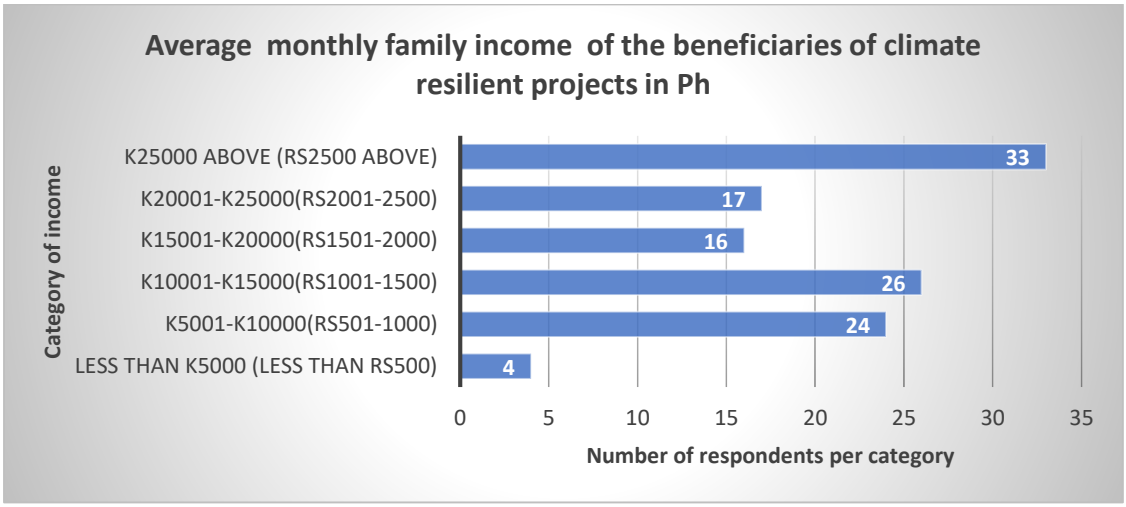


Fig 4. Distribution of the beneficiaries of climate resilient projects in Phalombe based on monthly income

FAO (2018) reported that small family farms in Malawi generated a gross annual income of about USD 18403 (11174.4 Rs/month) on average, with on-farm income indicated as their main source of economic activity.

Now we shall have a detailed examination of the types of intervention by the various agencies for enhancing climate resilient agriculture in Malawi.

4. 2 Types of interventions for enhancing climate resilient agriculture in Malawi

A detailed analysis of the types of interventions that had been envisaged by various funding agencies for enhancing climate resilient agriculture in Malawi was made by delineating the components of the projects. As seen in Table 4.2, the three major organisations selected for the study had intervened in different ways to address the issues of climate change in agriculture. All these projects had intended to help the farmers overcome the impact of climate change in agriculture by means of training, direct cash transfers, livelihood enhancement measures, advocacies, facilitation etc. These observations provide us with a clear picture of interventions made by the agencies responsible for agricultural development in Phalombe district in Malawi

Table 4.2 Types of interventions for enhancing climate resilient agriculture in Malawi

Organization	Interventions	Components
FAO	Training programmes	Land resources, crops production, food processing, goat production, agro-ecosystem analysis, watershed management, climate adaptation
	Livelihoods enhancement	Village Savings and Loan, crop diversification, backyard gardening
	Facilitation	Extension workers and lead farmers

Organization	Interventions	Components
WFP/World Vision	Training programmes	Land resource conservation, gully reclamation, swales, goat production
WFP/World Vision ELDS	Cash transfers	MK14,400/hh, food relief (30kgs maize, 6kgs pulses,1.1kgs vegetable oils)
	Training programmes	Land resource conservation, Conservation agriculture
ELDS	Livelihoods enhancement	Village Savings and Loans
	Distribution of inputs	2kgs Maize seed/hh
	Advocacy on climate change	Climate change adaptation

The interventions for enhancing climate resilient agriculture in Malawi have shown that the funding agencies had tried to implement several programmes with diverse components. As seen from the table, projects funded by FAO had concentrated more on training programmes on various aspects of production and natural resource management like water shed planning. They have also addressed climate change adaptation exclusively. FAO projects also had special emphasis on village savings and loans, crop diversification and backyard gardening as the options for mitigating the impact of climate change in agriculture. Similarly, projects funded by WFP/World Vision also included land resource conservation like gully and swale reclamation and livelihood options like goat production as the strategies to mitigate climate change. Their interventions also included food relief worth MK 14, 400 which would provide every household with 30 kg maize, 6 kg pulses and 1.1 kg vegetable oil. Similarly, ELDS had proposed training programmes on land resource

conservation and conservation agriculture to equip farmers with capabilities to address issues of climate change.

4. 3 Funding of projects on climate resilient agriculture

Details of the funds for the projects on climate change allotted by various agencies implementing climate resilient agriculture are given in Table 4.3.

Table 4.3 Funding of selected projects: Total outlay

Organization	Total Funding	Mode of Action
FAO	€ 5,000,000	Government agencies
WFP/World Vision	US$ 2,823,956	NGO
ELDS	US$ 130,585.12	NGO

While FAO had sanctioned projects worth € 5,000,000, WFP and ELDS were found to implement projects worth US$ 2,823,956 and US$ 130,585.12 respectively. All these projects were found to be implemented by Non- Governmental Organisations and the beneficiaries were found to avail benefits from different agencies simultaneously.

4.4. Project affiliation of beneficiaries

Distribution of the beneficiaries of climate resilient programmes selected for the study revealed that several respondents had availed benefits from multiple agencies simultaneously. Out of the different agencies, FAO is the agency from which highest number of beneficiaries (77.5 per cent) had availed benefits, followed by WFP/World Vision (Food for Asset programme), to which 49.2 per cent of beneficiaries were found to be affiliated.

Table 4.4: Distribution of beneficiaries based on affiliation to funding agencies

(n=120)

Name of organisation affiliated	Frequency	Percent
FAO	93	77.5
WFP/World Vision	59	49.2
ELDS	55	45.8
FAO/ELDS	42	35.0
FAO/WFP/World Vision	19	15.8
All projects	13	10.8

Source: Survey results

While 55 respondents which represented 45.8 per cent were found to have participated in ELDS funded projects, 35 per cent were involved in projects funded by FAO and ELDS. A proportion of 15.8 per cent was found to have participated in projects implemented by FAO and WFP/World Vision. As much as 10.8 per cent beneficiaries had availed benefits from all the projects selected for the study.

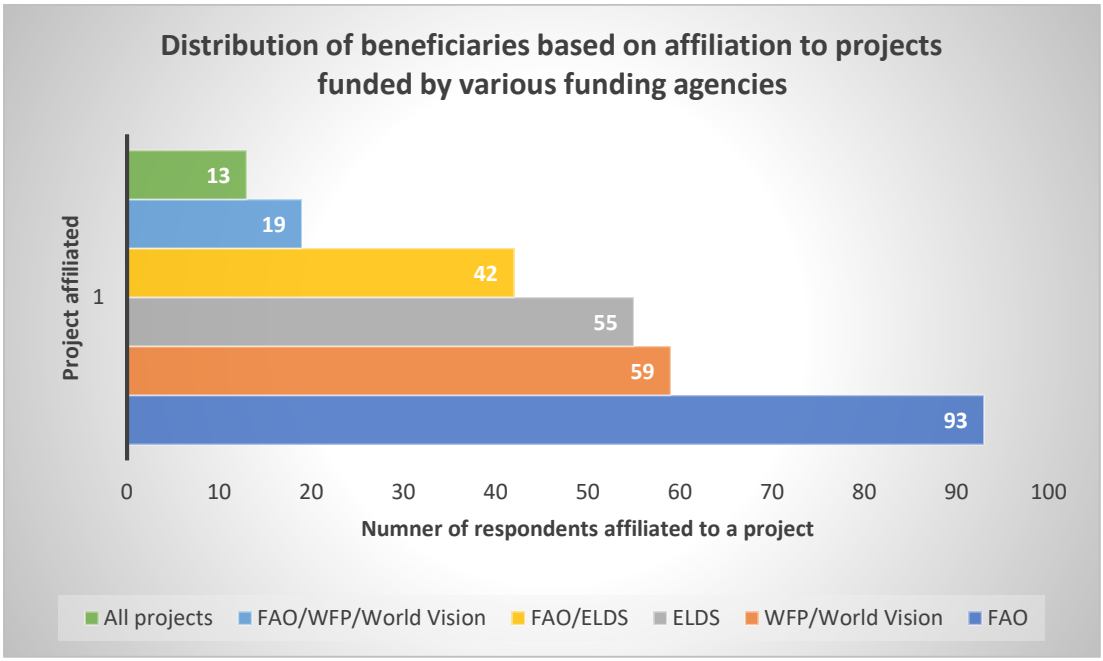


Fig 5. Distribution of beneficiaries based on affiliation to projects assisted by various funding agencies

The pattern of distribution of beneficiaries based on affiliation to projects funded by various development agencies is given in Fig.5.

4.5. Services offered by FAO projects as known to beneficiaries and availed by them

It was observed that the services offered as part of the climate resilient programmes were known to the beneficiaries in different degrees. Details of the services offered by each of the funding agency/implementing agency, the extent to which they were known to the beneficiaries and the extent to which the beneficiaries had availed these services are provided in Tables from 4.5.1 to 4.5.3.

Table 4.5.1: Services offered by the FAO project on climate change resilience as known to the beneficiaries and availed by them

(n=120)

Organization	Services	Services known		Services availed	
		Frequency	Percent	Frequency	Percent
FAO	Extension services	2	1.7	1	0.8
	Training programmes	23	19.2	20	16.7
	Crops production	16	13.3	7	5.8
	Livestock production	10	8.3	1	0.8
	Income generating activities	40	33.3	35	29.2
	Agro eco system analysis	89	74.2	89	74.2
	Business (entrepreneurship)	15	12.5	17	14.2
	Land resource conservation	6	5	11	9.2
	Village Savings and Loans	68	56.7	61	50.8

Source: survey results

As seen in Table (4.5.1) 89 respondents representing 74.2 per cent of the beneficiaries of FAO sponsored projects revealed that they had known about agro-ecosystem analysis as a service offered to them. It was also found that this service was

availed by an equal number of respondents since it was carried out before the commencement of field level operations. ‘Village savings and loans’ was reportedly known to 68 respondents (56.7%) and was availed by 50.8 per cent beneficiaries. Income generating activities which were reportedly known to33.3 per cent were availed by 29.2 per cent. Training programmes services offered by FAO were known to 19.2 per cent and 16.7 per cent have reportedly availed them. As regards services related to crop production, 16 respondents which represented 13.3 per cent had known about it whereas only 5.8 per cent were found to avail the services. It was also found that while 15 respondents representing 12.5 per cent had known about services related to entrepreneurship, a greater number of respondents (14.2%) had availed these services. Similarly, while only 6 respondents(5%) had known about land resource conservation services offered by climate resilient projects by FAO, 9.2 per cent had reportedly availed it during implementation. This difference between the number of beneficiaries who had known about the services on livestock production and availed them finally was found to be more in the case of 10 respondents (8.3%) had known about the services on livestock production only one person was found to have availed it. Interestingly, extension service was found to be the least known among the respondents with two respondents (1.7%) reporting that they had known the service. It is very important that the extension services had not reached the clientele of the projects funded by FAO, which needs to be addressed seriously.

4.6 Services offered by WFP/World Vision projects as known to beneficiaries and availed by them

As seen before, services of the projects implemented by WFP/World Vision were known to the beneficiaries to a certain extent and those services were availed at various levels. Details of the distribution of beneficiaries based on their knowledge of projects and services availed are given in Table 4.5.2

Table 4.5.2: Services offered by WFP/World Vision project on climate change resilience as known to the beneficiaries and availed by them

(n=120)

Organization	Services	Services known		Services availed	
		Frequency	Percent	Frequency	Per cent
WFP/World Vision	Extension services	0	0	0	0
	Training programmes	0	0	0	0
	Crops production	0	0	0	0
	Livestock production	0	0	0	0
	Income generating activities	37	30.8	37	30.8
	Agri -eco system analysis	0	0	0	0
	Business (Entrepreneurship)	0	0	0	0
	Land resource conservation	39	32.5	37	30.8
	Village savings and loans	0	0	0	0

Source: Survey results

It was observed from Table4.5.2that under WFP/World Vision only two services were known to the respondents. It was also observed that only these services were availed by the respondents. Reportedly, 39respondents which constituted 32.5 per cent of the beneficiaries, had known about the services of land resource conservation. This could be because the main objectives of this project were to create community assets by conserving the catchments of respondents' villages. As seen from the table, 37 respondents which represented 30.8 per cent had known about the services of income generating activities. It could also be observed from the table that services related to both land resource conservation and income generating activities were availed by 30.8 per cent of the respondents.

4.6 Services offered by ELDS Vision projects as known to beneficiaries and availed by them

As seen before, services of the projects implemented by ELDS were known to the beneficiaries to a certain extent and those services were availed at various levels. Details of the distribution of beneficiaries based on their knowledge of projects and services availed are given in Table 4.5.3

Table 4.5.3Services offered by ELDS Vision projects as known to beneficiaries and availed by them

(n=120)

Organization	Services	Services known		Services availed	
		Frequency	%	Frequency	%
ELDS	Extension services	1	0.8	1	0.8
	Training programmes	7	5.8	7	5.8
	Crops production	1	0.8	1	0.8
	Livestock production	0	0	0	0
	Income generating activities	2	1.7	0	0
	Agro eco system analysis	0	0	0	0
	Business (entrepreneurship)	54	45	47	39.2
	Land resource conservation	1	0.8	0	0
	Village Savings and Loans	0	0	0	0

Source: survey results

It could be observed from Table (4.5.3) that 54 respondents (45%) reportedly had known the service related to entrepreneurship development. Only seven respondents (5.8%) confirmed to have known about training programmes offered under the project, and two beneficiaries (1.7 per cent) reportedly knew about income generating activities. Services related to extension, crop production and land resource conservation were reportedly known to only one respondent each which represented a small proportion of 0.8 per cent.

The extent to which various services were availed by the beneficiaries showed that 39.2 per cent of the respondents affiliated to ELDS had availed various services related to business/entrepreneurship development. However, other services were availed only minimally, with seven respondents (5.8%) availing training services and only one respondent (0.8%) each availing services related to extension and crops production

A study by Ragasa et al (2017) reported the inconsistent impact of Farm Input Subsidy Programme (FISP) implemented in Malawi. She opined that inadequate provision of information to farmers on best agricultural production practices might have accounted for this mixed performance. Similarly, information on different projects implemented in the country was not reaching the farmers properly resulting in low utilization of the same.

4.6. Effectiveness of the projects on climate resilient agriculture in Phalombe as perceived by farmers

In order to assess whether the three selected climate resilient agriculture projects were effective, an effectiveness index was calculated as described in the chapter on Methodology. The results of the effectiveness index showed that the selected climate resilient agriculture projects had an index mean of 0.35. (See Table 4.6.1)

Table 4.6.1. Effectiveness index of selected project activities

SI. No.	Reason for effectiveness	Effectiveness index (120 respondents)		
		Total Score (X)	Maximum possible score (Y)	X Index=…...x 100 Y
1	Improvement in yields	81	120	67.50
2	Improvement in culture of savings and thrift (VSL)	55	120	45.83
3	Good toilets with hand washing	37	120	30.83
4	Good agricultural practices (one-one planting)	24	120	20.00
5	Land husbandry practices (eg. ridge alignment, manure)	15	120	12.00

Source: survey results

The indices estimated based on effectiveness of projects on climate resilience showed that improvement in yields was perceived to be the most important reason for effectiveness, followed by improvement in the culture of savings and thrift. Provisions of the projects to establish basic facilities like good toilets with hand washing was found to the third important reason for the effectiveness of projects. However, those interventions like good agricultural practices and land husbandry practices that would make agricultural production resilient had only lower indices. This showed that these aspects were not considered to be very effective by majority of the respondents.

A study also conducted by Tambe et al. (2016) noted that MGNREGA provided safety net to prevent the poor from trapped in extreme poverty as evident in G5P approach which act as a ladder of opportunity to escape poverty and increase livelihood sustainability for the poor. Therefore, promotion of culture of savings through village savings and loans will increase effectiveness of projects.

4.6.2 Comparison of effectiveness of projects

The projects were compared with respect to effectiveness perceived by the beneficiaries. (See Table 4.6.2)

Table 4.6.2Comparison of the effectiveness of the three selected projects(n=120)

Organization/project	HE		VE		E		LE		NE	
	F	P	F	P	F	P	F	P	F	P
FAO	49	40.8	36	30.0	8	6.7	-	-	27	22.5
WFP/World Vision	19	15.8	19	15.8	14	11.7	6,0	5.0	62	51.7
ELDS	1	0.8	1.0	0.8	21	17.5	14	11.7	67	55.8

Source: Survey results *F=Frequency, P=Percent HE=High effective, VE=Very effective, E=Effective, LE=Least effective, NE=Not effective*

As results shown in Table (4.6.2) project implemented by FAO was the most effective among the three projects selected for the study. FAO project was reported to be ‘highly effective’ by 40.8 per cent beneficiaries, while 36 respondents representing 30 per cent found FAO project to be ‘very effective’. While eight respondents (6.7%) agreed that the project was ‘effective’, 27 respondents representing (22.5%) opined that FAO project was ‘not effective’.

WFP/World Vision project was the second most effective project after FAO, with 19 respondents representing 15.8 per cent finding it to be ‘highly effective’ and ‘very effective’. WFP/World Vision project was considered to be effective by 14 respondents (11.7%) and six respondents representing 5 per cent considered the WFP project to be ‘least effective’. It is to be noted that 62 respondents which represent 51.7 per cent did not find the project to be effective.

According to the results in Table 4.6.2, project implemented by ELDS was the least effective project after FAO and WFP/World Vision projects as only 0.8 per cent reported that the project was highly effective and very effective respectively, 21 respondents representing (17.5%) said it was effective. It was also observed that 14 respondents which represent (11.7%) for ELDS project said was least effective while the highest figure of respondents 67 which represents (55.8%) said the project was not effective.

The high effective results showed in project implemented by FAO could be as a result of FAO activities put much emphasis on training the beneficiaries rather than providing cash transfer/food relief which does not provide skills and knowledge for adapting to shocks when disaster strikes.

A study conducted by Hofisi and Chizimba (2013) reviewed three projects based on the development approaches which they promoted in their implementation

of development projects. Sustainability was determined by how much the implementation process empowered the communities to sustain the development initiatives after the projects have been phased out.

4. 7. Resilience index of the beneficiaries of climate resilient agriculture projects

The resilience dimensions were identified after pilot study and seeking opinions from experts involved in climate resilient agriculture projects. Weightage was given based on the importance of the dimension to resilience as experienced by beneficiaries. The dimensions included good agriculture practices, village savings and loans, backyard gardening, timely cash/inputs delivery, good land husbandry practices, improvement in nutrition status, improvement in business skills and increasing capacity to adapt to climate change.

$$\boldsymbol{Resilienceindex} = \frac{R1xW1+R2xW2+R3xW3+R4xW4+R5xW5+R6xW6}{W1 + W2 + W3 + W4 +W5 +W6}$$

Resilience index score: Based on the mean score obtained in each category as per respondents rating and weightage given to each category by experts (backyard gardening- 1, improvement in nutrition status-2, improvement in business skills- 3, good agriculture practices-4, village savings and loans-5, increasing capacity to adapt to climate change-6), resilience index score for projects were computed using formula given in previous chapter three.

$$\boldsymbol{Resilience\ index} = \frac{\boldsymbol{R_1 \times W_1 + R_2 \times W_2 + R_3 \times W_3 + R_4 \times W_4 + R_5 \times W_5 + R_6 \times W_6}}{\boldsymbol{W_1 + W_2 + W_3 + W_4 + W_5 + W_6}}$$

$$= \frac{32.41\times1+86.17\times2+54.05\times3+56.58\times4+46.88\times5+69.3\times6}{1+2+3+4+5+6}$$

$$= \frac{1243}{21}$$

$Overall\ index = 59.2104$

The overall resilience index was estimated to be 59.2104, leading to infer that the high score on resilience index could be mostly due to increase in skills and knowledge on adaptation in adverse conditions acquired from past experiences and the benefits and risks in adopting climate resilient technologies.

The results of the current study correspond to the findings of Kaur et al (2017), in which they found that 94 per cent of the respondents were able to absorb, adapt or transform to respond to shocks of climate change at household level as a result of MGNREGS.

4.8 Categorisation of beneficiaries based on the scores on various components of resilience

The adoption of various components of climate resilience reported by the beneficiary farmers were computed based on the scores obtained by each of them (Table 4.7.1). Later the distribution of beneficiaries based on the level of adoption of these measures were found out.

Table 4.7.1 Scores of beneficiaries on various components of resilience

Statement	Mean score	SD
Good agricultural practices	56.58	21.74
Village savings and loans	46.88	13.10
Backyard garden	32.41	10.92
Improvement in nutrition	86.17	13.70
Improvement in business skills	54.04	25.42
Increase capacity to adapt climate change	69.3	6.52

The results showed that improvement in nutrition had the highest mean score, followed by increase in the capacity to adapt climate change. Adoption of good

agricultural practices was found to have the third largest mean score, followed by improvement in business skills. Back yard garden was found to have the least mean score. It could be inferred that these practices were adopted in varying degrees by the farmers. The distribution of beneficiaries based on the scores obtained for adoption of each dimension is explained below.

4. 7. 2. Categorization of beneficiaries based on resilience dimensions

a. Good agriculture practices

Categorization of beneficiaries based on good agriculture practices as given in Table 4.7.2 showed that 20 percent of the beneficiaries were in lower-level category, 63.33 per cent in medium level and 16.67 per cent in high level category. This implied that the adoption of good agricultural practices had to be encouraged to enhance the resilience of farmers to combat climate change.

Table 4.7.2.Categorization of beneficiaries based on good agricultural practices

Category	Beneficiaries (n=120)	
	Frequency	%
Lower level ≤ 34.84	24	20
Medium level 34.84-78.32	76	63.33
High level ≥ 78.32	20	16.67

b. Village savings and loans

Categorization of beneficiaries based on village savings and loans as shown in Table 4.7.3 showed that19.17per cent of the beneficiaries were in lower-level category, 58.17per cent in medium level and 21.66 per cent in high level category.

Table 4.7.3. Categorization of beneficiaries based on Village savings and loans

Category	Beneficiaries (n=120)	
	Frequency	%
Lower level ≤ 34.84	23	19.17%
Medium level 34.84-78.32	71	58.17%
High level ≥ 78.32	26	21.66%

More farmers were found to be included in the higher category, which showed that this was a measure that could be adopted invariably in all adverse situations.

c. Backyard gardening

Categorization of beneficiaries based on adoption of backyard gardening as a measure of resilience showed that 15 per cent of the farmers in lower level category, 81.67 per cent in medium level and 3.33 per cent in high level category. (Table 4.7.4)

Table 4.7.4. Categorization of beneficiaries based on backyard gardening

Category	Beneficiaries (n=120)	
	Frequency	%
Lower level ≤ 34.84	18	15
Medium level 34.84-78.32	98	81.67
High level ≥ 78.32	4	3.33

The results suggested that only a few famers had adopted back yard poultry as a measure of resilience and this needed to encouraged as an alternate source of livelihood to supplement the income from farming.

d. Improvement in nutrition status

Categorization of beneficiaries based on improvement in nutrition status as shown in Table 4.7.5 indicated that 9.17 per cent belonged to lower level category, 72.50 per cent in medium level and 18.33 per cent in high level category.

Table 4.7.5. Categorization of beneficiaries based on improvement in nutrition status

Category	Beneficiaries (n=120)	
	Frequency	%
Lower level ≤ 34.84	11	9.17
Medium level 34.84-78.32	87	72.50
High level ≥ 78.32	22	18.33

The results suggested that improvement in nutritional status as a measure of climate resilience was adopted comparatively at a higher level as the number of farmers who belonged to medium and higher categories came to about 90.8 per cent.

e. Improvement in business skills

Categorization of beneficiaries based on improvement in business skills showed that 84.17 per cent of them in lower-level category and 15.83 per cent in high level category (Table 4.7.6).

Table 4.7.6. Categorization of beneficiaries based on improvement in business skills

Category	Beneficiaries (n=120)	
	Frequency	%
Lower level ≤ 34.84	101	84.17
High level ≥ 78.32	19	15.83

The results indicated the need to concentrate on improving business skills as a measure of resilience to combat

f. Increasing capacity to adapt to climate change

Categorization of beneficiaries based on the scores on increasing capacity to adapt to climate change showed that 15 per cent of them were found to be in lower level category, 60 per cent in medium level and 25 per cent in high level category (Table 4.7.7).

Table 4.7.7. Categorization of beneficiaries based on increasing capacity to adapt to climate change

Category	Beneficiaries (n=120)	
	Frequency	%
Lower level ≤ 34.84	18	15
Medium level 34.84-78.32	72	60
High level ≥ 78.32	30	25

The results showed that 25 per cent of the farmers had high scores on their attempts to increase the capacity as a measure to adapt to climate change.

4.8 Relationship between resilience indices and selected variables

In order to find the relationship between selected variables and climate resilience indices of farmers a binary logistical regression was performed as given below. (See Table 4.8.1)

Table 4.8.1 Relationship between resilience indices and selected variables

Variables in the Equation						
Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Gender	-.386	.530	.530	1	.467	.680
Age	.084	.123	.473	1	.492	1.088
Marital status	.074	.190	.150	1	.699	1.077
Education	.967	.518	3.492	1	.062	2.630
Income source	-.123	**.089**	1.914	1	.167	.884
Family size	-.319	.228	1.949	1	.163	.727
Land holding size	1.046	**.401**	6.786	1	.009	2.845
Constant	-2.130	1.902	1.251	1	.263	.119

Variables (s)entered on step 1: Gender, Age, Marital status, Education, Income source, Family size, land holding size.

The results from the Table 4.8.1showed that variables like age, marital status, education and land holding size had positive relationship with resilience index of farmers as the values were above one. While variables such as gender, income source of farmers and family size were seen to have a negative relationship to resilience of farmers as it had values of less than one.

4.9 Components of climate resilience that are to be included in social audit as opined by beneficiaries

The perception of project beneficiaries and project personnel regarding the relative importance of various aspects that should be included in Social Audit was analysed as given below (Table 4.9.1)

Table 4.9. Components of climate resilience to be included in social audit as required bybeneficiaries

(n=120)

Components	Most Important		Very Important		Important		Least Important	
	F	P	F	P	F	P	F	P
Input distribution	7	5.8	56	46.7	51	42.5	6	5.0
Livelihood enhancement	9	7.5	65	54.2	46	38.3	0	0
Advocacy on climate change	3	2.5	52	43.3	43	35.8	22	18.3
Cash transfer/food distribution	8	6.7	48	40.0	47	39.2	17	14.2
Community participation	2	1.7	50	41.7	63	52.5	5	4.2

Source: survey resultsF=Frequency, P=Percent

According to Table 4.9.1, out of the various components of climate change that should be included in social audit, input distribution was found to be most important by only seven respondents, which represented 5.8 per cent. It was regarded as 'most important' by 56 respondents representing46.7 per cent and 'important' by 42.5 per cent respondents. However, six respondents (5%) found that input distribution is least important. Livelihoods enhancement was regarded as very important by 65 respondents accounting 54.2 per cent. It was found to be important by 38.3 per cent. Only nine respondents (7.5%) found that to be 'most important'.

Advocacy on climate change was found to be very important by 52 respondents (42.5%) while 22 respondents(18.3%)regarded it as least important to be included in the social audit process. However, three beneficiaries (2.5%) found advocacy on climate change to be a most important aspect that could be included in social audit. While as much as 52 respondents (43.3%) regarded advocacy to be very important, 43 respondents (35.8%) considered this aspect to be important, and 22 respondents representing 18.3 per cent surprisingly found this component to be least important.

As regards as cash transfer/ food distribution, while eight respondents (6.7%) opined that it was 'most important', 48beneficiaries (40%) found this to be a 'very important' component to be included in social audit. Out of the total beneficiaries 47 (39.2%) and 17(14.2%) regarded this component as 'important' and 'least important' respectively.

With regard to community participation, two respondents (1.7%) were of the opinion that it was the 'most important' component to be included in social audit process. As much as 50 respondents (41.7%) considered this component to be 'very important' and 63 respondents (52.5%) expressed that this component was 'important', while five respondents (4.2%) considered this to be 'least important'.

4.9.1 Components of climate resilience that are to be included in social audit as opined by beneficiaries

Table 4.9.1 shows that all the 15 stakeholders unanimously said training programmes and livelihood enhancement are most important components to be included in the social audit of climate resilient projects. Further, 13 respondents considered community participation to be most important and eight respondents regarded advocacy on climate change are most important.

Table 4.9.1: Components of climate resilience to be included in social audit as perceived by project personnel

Components	Most Important	Very Important	Important	Least Important
Training programmes	15	0	0	0
Input distribution	5	6	3	1
Livelihood enhancement	15	0	0	0
Advocacy on climate change	8	1	6	0
Cash transfer/ food distribution	4	0	5	6
Community participation	13	2	0	0

Source: survey results

Out of the programme personnel consulted, six officials regarded 'input distribution' to be 'very important'. Cash transfer/food distribution was considered to be most important by four programme officials and 'important' by five officials.

4.10. Outcomes of the project as perceived by beneficiaries

The study tried to find out the relative importance of the outcomes of the projects and agreement among the respondents. Kendall's Coefficient of Concordance was performed to see concordance among respondents.

Test Statistics

N	120
Kendall's W[a]	.214
Chi-Square	102.898
Df	4
Asymp. Sig.	.000

4.10 Ranking of outcomes of projects on climate resilience by beneficiaries(Kendall's Coefficient of Concordance)

Outcomes	Mean Rank Score
Improvement in food and health status	3.48
Good agricultural practices	3.29
Land husbandry practices	3.27
Increased culture of savings	3.08
Good sanitation	1.88

The coefficient of concordance W= 0.214 with chi square = 102.898 was significant at 1% level. Thus, it was evident that there was high degree of concordance among the farmers on the ranks assigned to the outcomes of the projects under study. Improvement in food and health status, good agricultural practices, land husbandry practices, increased culture of savings and good sanitation were ranked in the same order of importance.

4.9.1.Outcomes of projects as perceived by project personnel

Similarly, the project personnel also expressed their perception on the relative importance of the outcomes of the project. Kendall's coefficient of concordance was estimated to see the agreement among project personnel as regards the importance of outcomes (See Table 4.11)

Test Statistics

N	15
Kendall's W[a]	.455
Chi-Square	27.311
Df	4
Asymp. Sig.	.000

4.11Ranking of outcomes of projects on climate resilience by programme personnel(Kendall's Coefficient of Concordance)

Outcomes	**Mean Rank**
Improvement in food security and health status	3.67
Good agriculture practices (one-one planting)	3.67
Land husbandry practices (eg. ridge alignment, manure	3.40
Increase in culture of savings-VSL	2.43
Good sanitation	1.83

As seen from the table, Kendall's W[a] =0.455 with a chi-square =27.31, which is significant at 1% level of significance substantiated that programme personnel had also unanimously ranked the outcomes of climate resilience projects implemented by the three agencies. Accordingly, improvement in food security and health status, good agriculture practices (one-one planting), land husbandry practices (eg. ridge alignment, manure), increase in culture of savings-VSL and good sanitation were the outcomes of the project in the order of their importance. The order of importance of outcomes as expressed above would be a significant input for formulating the framework of social audit of climate resilient projects in Phalombe district.

4.10. Major constraints faced by beneficiaries

As explained earlier, the study had attempted to delineate the major constraints faced by the beneficiaries as well as the personnel of the projects under study. Constraints were ranked based on the order of severity and Kendall's Coefficient of Concordance of constraints was found out to prove whether the respondents had agreement on the order of severity of constraints experienced by them.

Test Statistics

N	120
Kendall's Wa	.500
Chi-Square	239.962
Df	4
Asymp. Sig.	.000

Table 4.12 Severity of constraints as perceived by beneficiaries (Kendall's coefficient of concordance)

Constraints	Mean Rank
Drying up of water resources	4.15
Drought/ flood	3.93
Small quantity of food	2.92
Late delivery of inputs	2.07
Poor involvement in decision making	1.94

The ranks assigned to the constraints by the beneficiaries based on severity had a coefficient of concordance w= 0.5, chi square =239.96, significant at 1% level. It could be inferred that there was high degree of concordance among the 120 respondents regarding their perception on the severity of constraints. The constraints were ranked in the order of severity were: drying up of water resources; drought/ flood; small quantity of food; late delivery of inputs; poor involvement in decision making. The severity of constraints would also be an important aspect is designing social audit.

4.10.1: Constraints faced by project personnel in implementing climate resilient agriculture projects

The constraints in implementing the projects on climate resilient agriculture under study were ranked in order to find out the order of severity experienced by project personnel. The details are provided in Table 4.12 given below:

Test Statistics

N	15
Kendall's W	.903
Chi-Square	67.718
Df	5
Asymp. Sig.	.000

4.12 Severity of constraints experienced by project personnel

Constraints	Mean Rank
Droughts/floods	5.47
Drying up of water sources (wells, rivers)	5.47
Small quantities of food items/ inputs	3.80
Late provision of funds by donors	2.53
Poor participation of beneficiaries	2.07
Operational difficulties	1.67

The results of analysis showed that the Kendall's W^a= 0.903 with chi-square =67.72 was significant at 1% level of significance. Therefore, the results explained that there was high degree of concordance among the project personnel in perceiving the order of constraints. The order of severity of constraints as ranked by the project personnel were: droughts/floods and drying up of water sources (wells, rivers), small quantities of food items/ inputs, late provision of funds by donors, poor participation of beneficiaries and other.

Based on the results from both beneficiaries and project personnel it could be inferred that that the constraints listed above had affected the success of various projects on climate resilient agriculture implemented by the donor. sponsoring agencies in Phalombe district.

4.13.1. Factors determining failure of climate resilient projects as perceived by beneficiaries

In order to find out the reasons for the failure of selected projects as perceived by beneficiaries, principal component analysis was done, the results of which are given below (Table 4.13):

Table 4.13.1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.740
Appro. Chi-Square	637.156
Bartlett's Test of Sphericity df	105
sig.	.000

Principal Component Analysis

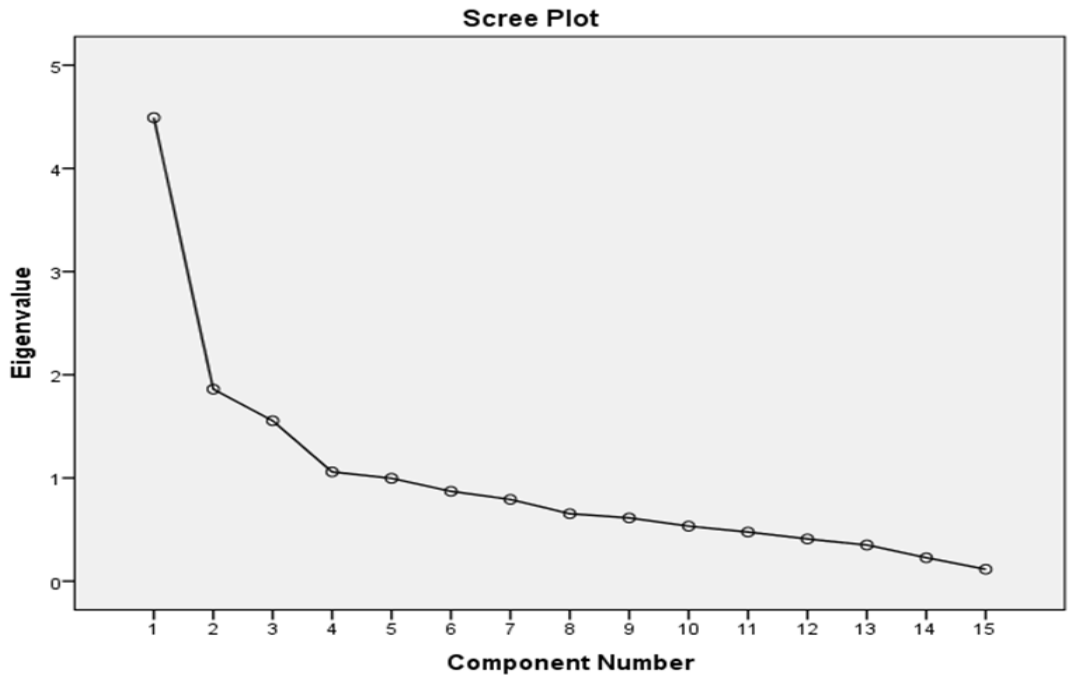
SI. No.	Factor	Statement	Extraction Commonalities
1	F1	Walking more than 20 minutes to reach working area	.386
2	F2	Not given goats for livelihood	.636
3	F3	Lack of specific measurement for work to be done by an individual	.631
4	F4	Favouritism of foremen to their relatives when sharing work	.554
5	F5	Some farmers not committed to group work	.417
6	F6	Not provided with maize and vegetable seeds	.720
7	F7	Working more than 4 hours as stipulated by government	.790
8	F8	No visits for learning technologies or practices	.622
9	F9	Not provided with grants for business	.734
10	F10	Not taken to agricultural fairs	.658
11	F11	Implementing agencies delay in provision of inputs	.605
12	F12	Small quantities of inputs	.610
13	F13	Some transporters requiring beneficiary's contribution for their inputs to be delivered to their place	.739
14	F14	Long procurement procedures followed by implementing agencies	.559
15	F15	Poor road network	.304

Total variance explained

Component	Eigenvalue	% of Variance	Cumulative %
1	**4.492**	**29.944**	**29.944**
2	**1.861**	**12.405**	**42.349**
3	**1.554**	**10.360**	**52.709**
4	**1.059**	**7.058**	**59.768**
5	.996	6.642	66.409
6	.870	5.802	72.212
7	.792	5.278	77.490
8	.654	4.357	81.847
9	.613	4.086	85.932
10	.533	3.554	89.487
11	.476	3.171	92.657
12	.409	2.727	95.385
13	.350	2.336	97.721
14	.227	1.512	99.233
15	.115	.767	100.000

Scree plot that confirms the selection of four components

Below scree plot confirms that the most reasons as perceived by beneficiaries as failures of the project were those in four components 1, 2, 3 and 4 which had an eigenvalue of above 1 after rotation sum of squared loadings.



Rotated component matrix

SI. No.	Components			
	1	2	3	4
F1			.547	
F2		.724		
F3			.776	
F4			.739	
F5			.583	
F6		.630		
F7				.868
F8		.570		
F9		.649		
F10		.757		
F11	.756			
F12	.762			
F13	.823			
F14	.738			
F15	.500			

The fifteen reasons cited by beneficiaries for shortfall/failure of projects represented 59.77 per cent of the variance in data. The first component including five statements (11, 12, 13, 14, 15) which were related to **inputs delivery** was found to have contributed much to failure of project explaining 23.28 per cent of the variance.

The second component, which was related to **unfulfilled promises** consisted of five reasons (2, 6, 8, 9, 10), accounted for 15.48 per cent of the variance**.** The third component namely **long distance and workload** consisting of four reasons (1, 3, 4, 5) was found to explain 13.136 per cent of the variance. The fourth component namely **long working hours** consisting of one reason (7) was found to explain 7.860 per cent of variance.

4.14. Factors contributing to failure of projects as perceived by project personnel

Similarly, project personnel were also asked to reflect on the reasons for the shortfalls/failures of selected projects, for which and a shortfall/failure index was computed.

According to the results, failure to fulfil the promises given to the beneficiaries was the most important factor contributing to the failure of projects, followed by late delivery of food/inputs. Heavy workload of the project personnel was cited to the third important factor by the project personnel. The fact that beneficiaries had to walk long distances to avail the benefits of the projects was the fourth most important factor that contribute to the failure of projects. This points towards the need to deliver the benefits at points that could be easily accessed by the beneficiaries. Working long hours was observed to be the fifth important factor, which did not have much importance, according to majority of the programme personnel.

Table 4.13.2 Factors affecting failure of projects as perceived by programme personnel

Reasons	Most Important (5)	Very important (4)	Medium (3)	Less Important (2)	Least Important (1)	Score	Rank
	(N)	(N)	(N)	(N)	(N)		
Late delivery of food/inputs	0	1	4	4	6	30	II
Unfulfilled promises	2	2	1	3	7	34	I
Beneficiaries walking long distance	0	3	1	2	9	28	IV
Heavy workload	0	3	2	1	9	29	III
Working long hours	0	2	2	1	10	26	V

T Awareness on *Kalondolondo* (Social Audit)

The enquiry as to whether the beneficiaries had been aware of the process of *Kalondolondo* (an equivalent concept of Social Audit in Malawian language) resulted in responses as given below (Table 4.15)

Table 4.13.3.Awareness on Kalondolondo/social audit

Respondent	Yes	No
Beneficiaries (N=120)	99 **(82.5%)**	21 **(17.5%)**
Programme personnel (N=15)	15 **(100%)**	0

Source: survey results

The responses showed that 99 respondents which represented 82.5 per cent had heard about the concept of social audit and 21 respondents (17.5%) reported that they had never heard of social audit. The reason for this was enquired further and it was found that another agency had implemented social audit as part of a project implemented by Department for International Development (DFID) earlier and some beneficiaries had been part of that exercise.

Contrary to responses from farmers, all the 15 programme personnel which represented the donor/sponsoring agencies had heard about the process of social audit. It is quite interesting to note that though the programme personnel had known about the concept of social audit, they had not taken any particular initiative to promote the idea of participatory monitoring of project implementation. This state of affairs warrants deliberate steps to institute social audit process as a compulsory pre requisite for implementation of development projects in Malawi, particularly for projects on climate resilient agriculture, which would hugely enhance the transparency and effectiveness of such projects. This finding was reiterated by the responses to the enquiries regarding involvement of beneficiaries in monitoring of projects and the type of evaluation of climate resilient projects followed by the donor/sponsoring agencies, details of which are given below:

4.14. Participation in social audit / monitoring of development programmes

Participation of project beneficiaries and programme personnel in any form of project monitoring or social audit would throw more light into the process of designing a social audit frame work in the situations that existed in the study area. The responses to the enquiry as to whether they had participated in any form of social audit or programme monitoring are given in Table 4.14

Table 4.14: Participation in social audit process/monitoring of development progrmames

Respondent	Yes	No
Beneficiaries (N=120)	**27 (22.5%)**	**93 (77.5%)**
Stakeholders (N=15)	**0**	**15 (100%)**

Source: survey results

It was found that 93 of respondents representing 77.7 per cent of the beneficiaries had not participated in any form of social audit or programme monitoring. However, 27 of the respondents (22.5%) had participated in *Kalondolondo* implemented by DFID. Surprisingly none of the programme personnel had involved in any monitoring process involving beneficiaries. This shows that the personnel of the projects on climate resilient agriculture had neither been oriented to the importance of participatory monitoring of projects nor trained on the process. This could be because of the fact that participatory monitoring of projects had not been an important component or pre requisite of project implementation by these agencies or they had deliberately abstained from instituting it. It could be inferred that the implementers had not considered the merits of monitoring the projects by involving beneficiaries, the implementation of which would have increased the effectiveness of these projects.

4.15. Nature of evaluation of projects by implementing agencies as reported by project personnel

Nature of the evaluation of projects by implementing agencies as reported by the project personnel showed that all the donor/sponsoring agencies had followed a top-down approach in monitoring and evaluating the development projects implemented by them. (See Table 4.15)

Table 4.15 Nature of evaluation of projects by implementing agencies

Organization	Evaluation mechanisms	
	Top-down approach	**Participatory approach**
FAO	**Yes**	No
WFP/World Vision	**Yes**	No
ELDS	**Yes**	No

Source: Survey results

The results indicated that the top- down approach followed by the donor/sponsoring agencies which implement various development programmes essentially restrict beneficiaries from participating neither in the formulation or implementation of development programmes. Therefore, the implementing agencies are not held responsible for the shortcomings or failures of the project. This would reduce the transparency of project implementation. Moreover, this approach would result in faulty design of the programmes, without considering the needs and aspirations of the beneficiaries. Besides, the sustainability of projects in the post implementation phase would also be adversely affected.

It could be inferred that the beneficiaries were largely ignorant of the actual aims and objectives of the project and the impact made by them. This has rendered the project beneficiaries mute spectators rather than active partners. Projects on climate resilience require more involvement of the beneficiaries as they insist on adaptation of their practices even if the projects are withdrawn.

4.16. Project components to be subjected to social audit according to beneficiaries

The various components of the projects on climate resilient agriculture that were found to be essentially included in social audit were identified based on literature review and discussion with experts were listed and the beneficiaries were asked to reflect whether the components were to be included in social audit. The responses of the beneficiaries are provided in Table 4.16

Table 4.16 Project components to be subjected to social audit as reported by beneficiaries

Component	YES		NO	
	Frequency	Percentage	Frequency	Percentage
Training programmes	35	29.2	85	70.8
Muster rolls	0	0	120	100
Material procurement	36	30	84	70
Input distribution (quantity)	68	56.7	52	43.3
Cash distribution (amount)	85	70.8	35	29.2
Funding	10	8.3	110	91.7

Source: survey results

As evident from the responses given above, beneficiaries had regarded many components to be not essential to be subjected to social audit. Out of the six components listed, only ‘cash distribution’ (amount) was found to be essential by 85 respondents (70.8%). Input distribution (quantity) was proposed to be included in social audit by 68 respondents (56.7%). While procurement of materials was proposed to be included in social audit of climate resilient projects by 36 respondents (30%), 35 respondents(29.2%) proposed training programmes and only 10 respondents (8.3%) proposed funding to be subjected to social audit. All the 120 respondents (100%) were of the opinion that muster rolls need not be subjected to social audit. These responses profoundly indicate the lack of knowledge on the importance of social audit in climate resilient programmes as well as other developmental programmes. These responses also might have been influenced by the

prior experience of *Kalondolondo* wherein only a few aspects were considered for monitoring. This warrants deliberate interventions to enhance the awareness of the farming community on participatory planning, implementation and monitoring of development projects.

4.17. Attributes of social audit framework as perceived by project personnel

Being the key actors in implementing the projects on climate resilient agriculture, the programme personnel of all the three agencies were required to reflect on the attributes of the projects to be included in the social audit process to summarize the impact of each of the project on the farming community in Phalombe district. The responses of the farmers are shown in Table 4.17

Table 4.17 Attributes of social audit framework as perceived by project personnel

Attribute	Strongly Agree (N)		Agree (N)		Neutral (N)		Disagree (N)		Strongly disagree (N)	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Income	11	73.3	4	26.6	-	-	-	-	-	-
Food security	11	73.3	4	26.6	-	-	-	-	-	-
Funding	8	53.3	7	46.6	-	-	-	-	-	-
Adoption of Good Agricultural Practices	15	100	-	-	-	-	-	-	-	-
Adoption of climate resilient practices	14	93.3	1	6.7	-	-	-	-	-	-
Gender equity	10	66.6	4	26.6	1	6.7	-	-	-	-
Utilisation of funds	7	46.6	2	13.3	4	26.6	2	13.3	-	-

Source: survey results

The results in the above table shows that all the 15 donor agency staff (100 %) strongly agreed that adoption of climate resilient technologies should be included in the framework of social audit. While 14 staff members (93.3%) agreed that adoption of good agricultural practices (GAP) should be included, 11 respondents (73.3%) strongly agreed that both income and food security should form a part of the social audit frame work. 10 strongly agree that Gender inclusion was strongly proposed by eight respondents(53.3 %) and seven staff members (46.6%) agreed to the proposal to include percentage of utilizing funds as a component of the social audit framework to evaluate the projects on climate resilient agriculture. Only a very few programme personnel had expressed neutral response to the components proposed, as seen in the case of utilisation of funds.

4.18. Actors to be involved in the social audit process as required by beneficiaries

The study attempted to identify the actors to be involved in the social audit of projects on climate resilient projects implemented by various agencies, for which a list of prospective agencies were prepared and the beneficiaries were asked to mark the significance of each one with respect to the social audit process. The preferences marked by the respondents were subjected to Kendall's coefficient of concordance to find out whether the respondents had agreement in their preferences. The details are given below (Table 4.17)

Test statistics

N	120
Kendall's Wa	.436
Chi-Square	313.921
Df	6
Asymp. Sig.	.000

Table 4.18 Actors to be included in social audit as preferred by beneficiaries

Actors	Mean Rank
Beneficiaries	5.86
AEDO, AEDC	4.60
NGO staff	4.26
Village Headman	4.18
Lead farmer	3.72
VCPC, ACPC, VDC, Community Policing, ASHP	3.67
Community Development Assistant	1.72

Source: survey results

The Kendall's W^a=0.436 with a Chi-Square=313.921 was significant at 1% level which implied that there was high degree of agreement among the respondents about the actors to be taking part in social audit process of projects in the order of importance. Accordingly beneficiaries, AEDO and AEDC, NGO staff, Village Headman, Lead farmer, VCPC, ACPC, VDC, Community Policing, ASHP and Community Development Assistant were preferred in the order of their importance.

4.18.1. Actors to be included in social audit process as preferred by programme personnel

The study also attempted to identify the actors to be involved in the social audit of projects on climate resilient projects as preferred by programme personnel. The preferences marked by the respondents were subjected to Kendall's coefficient of concordance to find out whether the respondents had agreement in their preferences. The details are given below (Table 4.18)

Test Statistics

N	15
Kendall's Wa	.479
Chi-Square	43.085
Df	6
Asymp. Sig.	.000

Table 4.19 Actors to be included in social audit as preferred by programme personnel

Actors	Mean Rank
Beneficiaries	5.5
AEDO, AEDC	5.13
NGO staff	4.73
Village Headman	3.87
Lead farmer	3.67
VCPC, ACPC, VDC, Community Policing, ASHP	2.73
Community Development Assistant	2.37

Source: survey results

The preferences of programme personnel as regards the actors to be included in social audit process showed agreement as evinced from the Kendall's Coefficient of Concordance W=.479 with a Chi-Square value 43.085, which was significant at 1% level. Accordingly, beneficiaries, AEDO & AEDC, NGO Staff, Village Head, Lead farmers, Community Development Assistants and VCPC, ACPC, VDC, Community policing, ASHP were preferred in the order of their importance. It could also be

observed that the preference of actors by programme personnel did not differ from the preferences expressed by beneficiaries.

These preferences expressed by beneficiaries and programme personnel were based on the relative contribution of these entities in the implementation of the projects on climate resilience in Phalombe district by the three agencies selected for the study.

4.18 Framework of Social Audit on climate resilient agriculture projects

To summarise, the study showed that the following attributes viz. adoption of climate resilient technologies, adoption of good agricultural practices (GAP), income, food security, gender inclusion and percentage of utilizing funds should be evaluated in any social audit of projects on climate resilient agriculture as opined by the programme personnel.

Though the beneficiaries have not fully expressed their agreement, components like training programmes, muster rolls, material procured, input distribution (quantity), cash distribution (amount) and funding were proposed to be included in social audit of projects on climate resilient agriculture. It was inferred that this could help reduce the corrupt practices that happen in these projects due to lack of transparency and accountability on part of the funding. sponsoring agencies which are mostly NGOs. This may also reverse the top- down approach of evaluating their projects. Involvement of beneficiaries in monitoring climate projects on climate resilient agriculture would empower the beneficiaries to own the project even after the withdrawal of the implementing agencies. In that process, it would also increase the sustainability of the projects.

As explained earlier, both beneficiaries and programme personnel had preferred the beneficiaries, AEDO and AEDC, NGO staff, Village Headman, Lead farmer, VCPC, ACPC, VDC, Community Policing, ASHP and Community Development Assistant as actors of social audit.

Based on the above observations, a frame work of social audit was formulated to help the agencies that implement social audit conduct the process systematically. The framework included all the aspects that were identified by the stakeholders of the projects on climate resilient agriculture. The process of social audit and the sequence of steps to be followed were adapted from the experience of social audit of various projects reported by various authors. Social audit processes followed in India were also followed to formulate the frame work and the course of social audit process. Since social audit involves a neutral and unbiased evaluation of the projects under consideration, all the documents that would substantiate the delivery of services will have to be examined along with the collection of feedback and opinion from the beneficiaries and other stakeholders. The documentary evidences to be produced to support the process were finalised in consultation with the project personnel and experts on social audit identified from Kerala, India. The agencies to provide documents were also identified. The matrix of social audit process, components, steps involved and the agencies are provided in Table4.20 provided below.

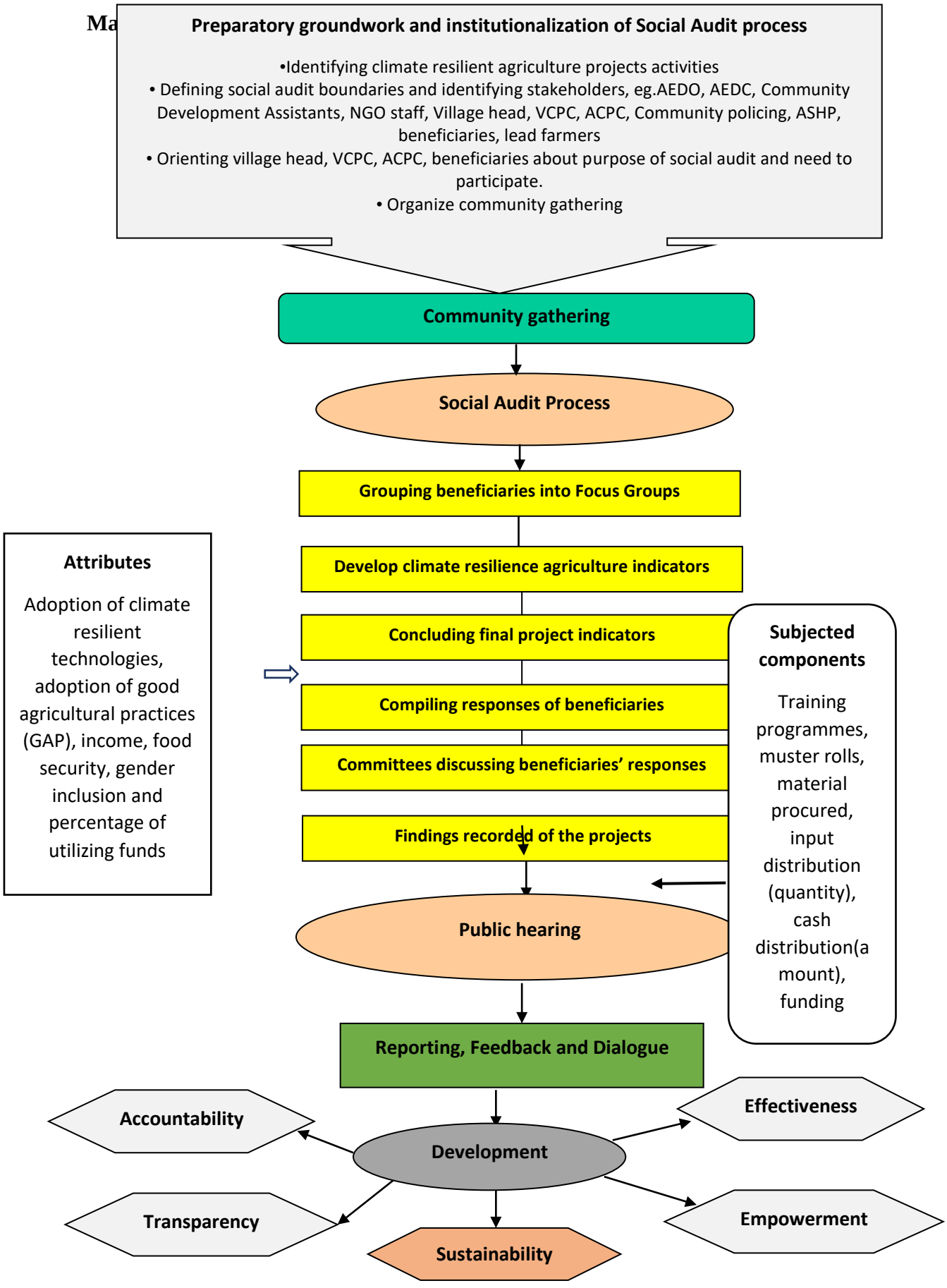
Table 4.20Framework of Social Audit process on climate resilient agriculture projects

Criteria/ component	Steps	Associated documents to be examined	Observations to be made	Rating (Out of 10)	Responsible persons
Training programmes	• Identifying the training needs of beneficiaries. • Choosing the types of training to conduct. • Identifying the trainers • Conducting the training. • Evaluating the training. • Reporting and feedback	List of participants, material procured for the training, ability of the beneficiaries to apply the skills gained from the training	• Number of days of training • Content of the topics delivered to beneficiaries	Based on committee they can give a rating	Social Audit Committee
Livelihood enhancement	• Identifying the livelihood activities that beneficiaries will benefit. • Types of livelihood enhancement being implemented by the NGO • Specifying the implementation period of the project activities planned.	List of livelihood activities, list of beneficiaries, technologies being advocated for by NGO.	• Status of beneficiaries' households • Types of livelihood activities being implemented by beneficiaries. • Number of interventions carried by the beneficiaries	Committee to give rating based on observations and information on documents as well as personal judgement of committee members	AEDC, AEDO, NGO Experts in the area
Input distribution	• Identify beneficiaries to be given inputs • Verification of	Muster roll, types of inputs received,	• Performance of inputs received.	Social audit committee	VCPC, ACPC, VDC, AEDO,

	beneficiaries to receive the inputs • Actual distribution of inputs with right quantity. • Verifying with the beneficiaries that the quantity received was the recommended. • Monitoring together beneficiaries on utilization of inputs received. • Reporting and feedback	quantity of input distribution by individual beneficiary or groups.	• Util isation of inputs received by beneficiari es.		AEDC, Commu nity Develo pment Assista nt, Village head, benefici aries, ASHP
Cash transfer/fo od relief	• Identify beneficiaries to receive cash/food relief • Verification of beneficiaries to receive the cash/food relief. • Actual distribution of cash/food relief with right quantity. • Verifying with the beneficiaries that the amount of cash/food relief received was the recommended. • Monitoring together beneficiaries on utilization of cash transfer/food relief received. • Reviewing the programme impact. • Reporting and feedback	Muster roll, types of food items received, quantity of cash/food items received by individual beneficiary or groups and percentage of funding utilised.	• Im provement in food security. • Im provement in nutrition status. • Util isation of cash received.	Social audit commit tee selecte d to rate based on their judgem ent.	VCPC, ACPC, VDC, AEDO, AEDC, NGO staff, Commu nity Develo pment Assista nt, Village head, benefici aries, Commu nity policing .
Business (entrepren eurship developm ent)	• Identify beneficiaries to participate in entrepreneurship development. • Identifying business trainings needs of beneficiaries. • Mobilization of resources for business	List of beneficiarie s per business, type of businesses, business plan, amount of start-up	• Nu mber of businesses. • Im provement in budgeting, marketing, promotion and pricing	Social audit commit tee	AEDO, AEDC, NGO staff, Commu nity Develo pment Assista nt

	• Conducting actual business trainings distribution of cash/food relief with right quantity. • Verifying with the beneficiaries that the amount of cash/food relief received was the recommended. • Monitoring together beneficiaries on utilization of cash transfer/food relief received. • Reviewing the programme impact. • Reporting and feedback	capital dispensed to individuals.	skills.		

Social audit framework suggested for projects on climate resilient projects in Ma



SUMMARY AND CONCLUSION

IV. SUMMARY AND CONCLUSION

Social audit as a process that helps in evaluating development projects that improving the livelihoods of community members through participation of the beneficiaries of those projects in every step of planning, implementation, monitoring and evaluation.

The tool has been observed to empower communities and beneficiaries to participate in developmental projects, promote transparency, accountability and effective implementation of the projects, reduction of cases of corruption, promotes inclusiveness in development as members of communities are involved in planning and implementation of projects.

Social audit also been recommended to enhance sustainability of project as it promotes communities ownership, better coordination of work implementation between project beneficiaries and implementer, it can be used in measurement of the efficiency of implementation of in sectors like health, agriculture, environment and accounting as well as it can guide the project implementers to track project progress.

For introduction and familiarization of the study location on social audit in climate resilient agriculture projects in Phalombe beneficiaries participated or are participating in climate resilient projects were selected for the study.

This study entitled “Developing a framework of social audit for evaluating projects on climate resilient agriculture in Malawi” was carried out with the following objectives.

a. To assess the effectiveness of projects on climate resilient agriculture which are implemented in Phalombe, Malawi.
b. To evolve a framework of social audit for evaluating such projects and to analyze the outcomes, constraints and impact of selected projects.

A total of 120 beneficiaries who participated or are participating in climate resilient agriculture project from the three projects implemented by FAO, WFP/World Vision and ELDS were purposively from six villages in three Extension Planning Areas of Tamani, Kasongo and Mpinda respectively which were randomly selected from the six EPAs the district has. The villages from which the beneficiaries were

coming from were randomly selected using simple random method of sampling. The respondents were equally distributed in the three EPAs as 40 beneficiaries were selected from the two villages in the EPA.

An *ex-post facto* research design was adopted for the study. The study variables were selected through rating and experts' opinions. The following independent variables gender, age, marital status, education level, income source, family size, land holding size and average family income per month for beneficiaries, and gender, position/post, organization name, organization structure, funding and number of beneficiaries' stakeholders were considered for the study.

Dependent variables like effectiveness reason of projects by beneficiaries and stakeholders, shortfalls/failures of projects by beneficiaries and stakeholders, outcomes of projects by beneficiaries and stakeholders, constraints faced by beneficiaries and stakeholders, actors of social audit by beneficiaries and stakeholders and attributes climate resilient projects to be subjected to framework of social audit.

Feedback of respondents obtained after pilot study and from experts' opinions from NGO and government working in field of climate resilient agriculture helped in completion formation of questionnaire. Data for both beneficiaries and NGO staffs was collected using a questionnaire which was developed in Kobo Collect Tool due to COVID-19.

The study data were analyzed using frequency and percentage analysis, Factor analysis, Kendall's Wallis Coefficient of Correlation, Resilience index, Effectiveness index, and Composite index.

The key highlights of the study are below:

- On involvement or participation of different gender categories in climate resilient agriculture projects it was found that (78.3%) were female and (21.7%) were male beneficiaries suggest that participation in climate resilient agriculture projects are mostly involving and done by women.
- The the highest percentage (33.3%) of respondents were in the age range of 25 to 35 years followed by (18.3%) of those respondents in age range of 51 to 55 years and least (6.7%) were those of age range 18 to 24 years.
-

- Based on results of marital status more were those married (71.7%) followed by (15%) of those respondents who were divorced during the time of study and the least respondents were (0.8%) who was single. Married families were many because when targeting for project beneficiary's priority first goes to families that have children and more food compared to families that are single.
- About (84.2%) of respondents their education level was primary school but cumulative per cent of those who have never attended school and studied at least to primary school but not attain secondary education were (90.8%). Only single person said did adult literacy education which represents (0.8%).
- About source of income for the respondent's climate resilient agriculture projects (66.7%) largely depend on farming as their primary source of income and (13.3%) depend on both farming and small-scale businesses while (0.8%) get their income from fishing and unskilled labour respectively.
- About (43.3%) have a family size of 5 to 6 individuals which agrees with marital status that showed more to be married compared to those who are single while (31.7%) have the family size of 3 to 4 people, (15.8%) of respondents has a family size of 7 to 8 members having greater number of people had 9 to 10 members (4.2%).
- land holding size of the respondents who were interviewed for the study for being a beneficiary of climate resilient agriculture projects. The survey results from the table (4.1.7) illustrate that about 65 respondents which represent (54.2%) of farmers have land holding size of 1 to 2 acres.
- Cumulatively (99.2%) of beneficiaries have the land holding size of less than one acre and those of 1 to 2 acres while those having land holding size of the range of 3 to 4 acres were (0.8%) of the total respondents.
- About (27.5%) of respondents had an average monthly income of K25, 000 above an equivalent of Rs. 2500 above, followed by (21.7%) respondents they were earning K10001-K15000(Rs1001-1500) a month on average and the (3.3%) of respondents earned less than K5000 (Less than Rs500) income per month.
- According to result of services known and availed to respondents by the NGOs only FAO was the one who made known and availed the services of agri-ecosystem analysis, village savings and loan , income generating activities,

-
  - training programmes service, crops production, business(enterprise), livestock production, land resource conservation and extension service while WPF/World vision managed to make known and avail two services income generating activities and land resource conservation. ELDS managed to make known extension services, training programmes, crops production, income generating activities, business (entrepreneurship) and land resource conservation and only availed extension services, training programmes, crops production, livestock production, business (entrepreneurship).
  - In the case of Resilience index for climate resilient agriculture projects shows (60.98).

Resilient index of each indicator

Statement	**Mean**	**SD**
Good agricultural practices	56.58	21.74
Village savings and loans	46.88	13.10
Backyard garden	32.41	10.92
Improvement in nutrition	43.08	13.70
Improvement in business skills	54.04	25.42
Increase capacity to adapt climate change	69.3	6.52

SOCIAL AUDIT FRAME WORK FOR PROJECTS ON CLIMATE RESILIENT AGRICULTURE IN MALAWI

The social audit framework to have the process flows prescribed for social audit with inferences of the study incorporated into the framework. Based on review of social audit process in India and other countries as well as the field level experience of social audit process in Kerala as witnessed in a Nedumangadu Block Panchayat in Thiruvananthapuram district discussion with experts on social audit who had participated in the social audit process should be done.

RECOMMENDATIONS

- Input delivery systems of climate resilient agriculture projects have to be made more effective
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- Objectives of the projects have to be fully addressed during the course of the projects without leaving any activity unfulfilled
- Need to deliberately include social audit in policies on project of environmental, agriculture and climate resilience
- Communities should be trained on how to conduct social audit
- Government should make project monitoring by NGOs participative, mandatorily
- Need to develop capacity of agriculture experts on social audit process
- Governments to ensure that all attributes and components that have implications on equity and welfare of people should be subjected to social audit process
- Based on the framework suggested, detailed audit process manuals have to be formulated in the context of implementation of climate resilience projects in Malawi.

CONCLUSION

Social audit could reduce problems of corruption and lack of transparency which cripple the effectiveness of climate resilient agriculture projects in Malawi. All the factors that contribute to the failure of projects can be identified through Social Audit and corrected. Conducting social audit will increase projects sustainability beyond its phase therefore an ideal framework of social audit in Malawi process should include all actors in agricultural development process and emphasize on participatory approach of evaluation.

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APPENDIX 1

PHALOMBE DISTRICT AGRICULTURE RESILIENCE PROJECTS STAKEHOLDERS						
No	**Name of Project**	**Project Duration**	**Implementing Agency**	**Impact Area**	**Thematic Areas**	**DONOR**
1	Livelihood Empowerment project	2016-2019	ELDS	Mkhumba, Kaduya and Jenala	Irrigation, Income and nutrition security, conservation agriculture, aquaculture, Livestock promotion (Resilience)	-Evangelical Church in America -FAO
2	SUN	2017-2022	ADRA	Jenala and Chiwalo	Nutrition	WFP
3	Food assistance for asset creation (FFA)	2016-2021	World Vision/WFP	Jenala and Chiwalo, Kaduya	Resilience	DFID
4	Community Management of Acute Malnutrition (CMAM)	On going	UNICEF	Whole district	Nutrition	UNICEF
5	Agricultural production	On going	MoA	Whole district	Food security	MoA
6	Promoting Sustainable Partnerships in building Resilience (PROSPER)	2019-2023	Concern Worldwide	Kaduya, Nazombe	Resilience	DFID
7	Food security	2008-2020	Inter AID	T/A Chiwalo	Food security	Headquarters Inter Aid France
8	Resilience building	2015-2019	FAO	TA Chiwalo and Jenala	Food security & resilience	FAO
9	Breaking Circle	2016-2019	(CICOD)	Chiwalo and Nazombe	Resilience	OXFAM

APPENDIX 2

(a) **INDIVIDUAL INTERVIEW SCHEDULE**

Name……Village……

EPA…….

SECTION: A

1. Socio-economic characteristics of beneficiaries

Gender	(a) Male (b) Female
Age	(a) 18-24 (b) 25-35 (c) 36-40 (d) 41-45 (e) 46-50 (f) 51-55
Marital status	(a) Single (b) married (c) widow (d) separated (e) divorce
Education level	(a) Never attended (b) Primary (c) Secondary/high school (d) Tertiary (Diploma/Degree) (e) others-specify……
Income source	(a) Farming (b) small scale business (c) Fishing (d) Casual labour (e) unskilled labour (f) skilled labour (g) Farming & small-scale business (h) a, b &c (i) others-specify……
Family size	(a) 1-2 (b) 3-4 (c) 5-6 (d) 7-8 (e) 9-10
Land holding size	(a) Less than 1 acre (b) 1-2 acre (c) 3-4 acres (d) 5-6 acres (e) 7-8 acres (f) other acres (specify)……
Average family income/month	(a) Less than K5000 (b) K5001-K10000 (c) K10001-K15000 (d) K15001-K20000 (e) K20001-K25000 (f) K25000 & above

SECTION: B

2. Which project are you affiliated with? (Tick all applicable)

NGO	**Project Affiliation**
FAO	
WFP/World Vision	
ELDS	

3. What are the services offered by the project availed to you?

Project	Services known	Availed Services
FAO		
WFP/World Vision		
ELDS		

4. Effectiveness of the project as perceived by beneficiaries

a. Livelihood enhancement

Organization	**Components**	**Quantity/Services**	**HE**	**VE**	**E**	**LE**	**NE**
FAO	Village Savings and Loans						
	Backyard garden						
	Business (Entrepreneurship)						
World Vision/WFP	Village Savings and Loans						
	Backyard garden						
	Business (Entrepreneurship)						
ELDS	Village Savings and Loans						
	Backyard garden						
	Business (Entrepreneurship)						

Scores: 5=High Effective, 4=Very effective, 3=Effective, 2=least effective,1=Not effective

b. Training programmes

Organization	Number of trainings attended	HE	VE	E	LE	NE
FAO						
WFP/World Vision						
ELDS						

Scores: 5=High Effective, 4=Very effective, 3=Effective, 2=least effective,1=Not effective

c. Input distribution (seed quality)

Organization	Quantity/year	HQ	VGQ	GG	LQ	PQ
World Vision/WFP						
FAO						
ELDS						

Scores: 1=High quality, 2=Very good quality, 3=good quality, 4=low quality, 5=poor

d. Cash transfer/ food relief distribution

Organization	Amount/Quantity/year	HE	VE	E	LE	NE
World Vision/WFP						
FAO						
ELDS						

Scores: 5=High Effective, 4=Very effective, 3=Effective, 2=least effective,1=Not effective

5. Effectiveness as perceived by beneficiaries

(a) Adoption of good agricultural practices: Out of total good agricultural practices how many have you adopted?

Scale: 10-1, 20-2, 30-3, 40- 4, 50-5, 60-6, 70-7, 80-8, 90-9, 100-10 (points)

(b) Village Savings and Loans: How much loan have you managed to take and repay in percentage?

Score: 1=10, 2=20, 3=30, 4=40, 5=50, 6=60, 7=70, 8=80, 9=90, 10=100

(c) Backyard garden

Did you establish a backyard garden? 1=No 2=Yes
If yes, how long have you sustain it? 1=less than 1 year, 2=1-2year, 3=2-3years, 4=3-4years, 5=4-5years, 6=5 years above

(d) Timely cash/inputs delivered: How long do inputs delivered to you?
1=Delayed 2= Timely

(e) Adoption of good agricultural practices: Out of total good land husbandry practices how many have you adopted?
Scale: 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 (points)

(f) Improvement in nutrition status: Have you benefited? 1=No 2=Yes
If yes, mention them and rank on 5-point scale

Health benefit	NE	LE	E	VE	HE

Score meaning: 5=High effective, 4=Very effective, 3=Effective, 2=least effective, 1=Not effective

(g) Improvement in business skills. Have your business skills improved? 1=No 2=Yes
If yes, how effective has your skills improved?

Business skill	**NE**	**LE**	**E**	**VE**	**HE**
Budgeting					
Business planning					
Marketing					
Promoting					
Costing/pricing					

Score meaning: 5=High effective, 4=Very effective, 3=Effective, 2=least effective, 1=Not effective

(h) Increase capacity to adapt to climate change: Have your capacity increased on climate change adaptation? 1=No 2=Yes

If yes, how effective has your capacity increased on climate change?

Climate Change adaptation	**NE**	**LE**	**E**	**VE**	**HE**
Crop diversification					
Land resource conservation					
Livestock production					
Conservation agriculture					
Income generating activities					

Score meaning: 5=High effective, 4=Very effective, 3=Effective, 2=least effective, 1=Not effective

6. What components of climate change should be included?

No.	Component	MI	VI	I	LI
1	Training Programmes				
2	Inputs distribution				
3	Livelihoods enhancement				
4	Advocacy on climate change				
5	Cash Transfer/Food Distribution				
6	Community participation				

Rank: 1=Most important, 2=very important, 3=important, 4=least important

7. Have you ever heard about Kalondolondo/social audit?

1= Yes 2= No

8. If yes, have you ever participated in the social audit process?

1=Yes 2= No

9. Does the selected project have to be subjected to Social Audit?

1=Yes 2=No

10. If yes, which components/performances should be subjected to social audit?

No.	Component	Yes (1)	No (2)
1	Training programmes		
2	Muster rolls		
3	Material procurement		
4	Input distributed (quantity)		
5	Cash distribution (amount)		
6	Funding		

11. What important benefits have you gained from the project?

No.	Benefits	Rank
1		
2		
3		
4		
5		

Rank: 1=Most beneficial, 2=very beneficial, 3=beneficial, 4=least beneficial

12. Can you compare the projects which is more effective? (Use 5 stars to indicate effectiveness)

Project	Score	Score	Score
FAO			
WFP/World Vision			
ELDS			

13. Perceived/experienced reasons for effectiveness (Tick all applicable)

No	Reasons	FAO	WFP/World Vision	ELDS
1	Improvement in yields			
2	Land husbandry practices (e.g. Ridge alignment, manure)			
3	Good agricultural practices(one-one planting)			
4	Improvement in culture of savings (VSL)			
5	Good toilets with hand washing			

14. Perceived reasons for shortfalls/failure of projects (Rank)

No.	Reasons	FAO	WFP/World Vision	ELDS
1	Late delivery of food/inputs			
2	Unfulfilled promises			
3	Beneficiaries walking long distance			
4	Heavy workload			
5	Working long hours			

Rank: 5=Highest, 4=High, 3=Medium, 2=low, 1=least

15. Outcomes of the project perceived by beneficiaries

No	Outcomes	MI(4)	VI(3)	I(2)	LI(1)
1	Improvement in food security and health status				
2	Good sanitation				
3	Land husbandry practices(e.g.Ridge alignment, manure)				
4	Good agricultural practices (one-one planting)				
5	Increase in culture of savings (VSL)				

Rank: MI=Most important, VI=Very important, I=Important, LI=Least important

16. Constraints faced by beneficiaries

No	Constraints	Most Severe	Severe	Medium	Less Severe	Least Severe
1	Late delivery of inputs					
2	Small quantities of food items/inputs					
3	Droughts/ Floods					
4	Drying up of water sources(wells, rivers)					
5	Poor involvement of beneficiaries in decision making					

Rank: 1=Most Severe, 2=Severe, 3=Medium, 4=Less severe, 5=Least severe

17. Actors to be part of social audit as perceived by beneficiaries.

No.	Attributes	SA(6)	A(5)	N(4)	D(3)	SD(2)	NA(1)
1	Beneficiaries						
2	NGO staff						
3	AEDO, AEDC						
4	Lead Farmers						
5	Village headmen						

No.	Attributes	SA(6)	A(5)	N(4)	D(3)	SD(2)	NA(1)
6	Community Development Assistants						
7	VCPC, ACPC, VDC, Community Policing, ASHP						

Rank: SA=Strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly disagree, NA=Not applicable

(b) NGOs INTERVIEW SCHEDULE

Name of Respondent……

Position…….

Name of organization……

Projecttitle…….
……

Project duration**…….**

SECTION: A. Administrative data

18. List of development projects on climate resilience your organization is implementing?

a. Type of interventions

Organization	Project title	Components	Total number/ year	Details of components
		Training Programmes		
		Cash transfer		
		Livelihoods enhancement		
		Facilitation		
		Distribution of inputs		
		Advocacy on climate change		

b. Organization structure

Organization	Structure

c. Funding

Organization	Funding	Mode of Action

d. Number of beneficiaries

Organization	Area coverage	Number of people benefiting	Funds used	Number of trainings

SECTION: B

19. Effectiveness of the project as perceived by stakeholder

e. Livelihood enhancement

Organization	HE	VE	E	LE	NE

Scores: 5=High Effective, 4=Very effective, 3=Effective, 2=least effective,1=Not effective

f. Training programmes

Organization	Type of training	HE	VE	E	LE	NE

Scores: 5=High Effective, 4=Very effective, 3=Effective, 2=least effective,1=Not effective

g. Input distribution (seed quality)

Organization	HQ	VGQ	GG	LQ	PQ

Scores: 5=High quality, 4=Very good quality, 3=good quality, 2=low quality, 1=poor

h. Cash transfer/ food relief distribution

Organization	HE	VE	E	LE	NE

Scores: 5=High Effective, 4=Very effective, 3=Effective, 2=least effective,1=Not effective

20. Indicators of effectiveness as perceived by stakeholder

Indicator	NE	LE	E	VE	HE
Adoption of good agricultural practices					
VSL					
Backyard garden					
Timely cash/inputs delivered					
Adoption of good land husbandry practices					
Improvement in nutrition status					
Improvement in business skills					
Increase capacity to adapt to climate change					

Score meaning: 5=High effective, 4=Very effective, 3=Effective, 2=least effective, 1=Not effective

21. What components of climate change should be included?

No.	Component	MI	VI	I	LI
1	Training Programmes				
2	Inputs distribution				
3	Livelihoods enhancement				

4	Advocacy on climate change				
5	Cash Transfer/Food Distribution				
6	Community participation				

Rank: 1=Most important, 2=very important, 3=important, 4=least important

22. Have you ever heard about Kalondolondo/social audit?

1= Yes 2= No

23. If yes, have you ever participated in the social audit process?

1=Yes 2= No

24. Which evaluation mechanism does your organization follow?

1=Top down approach, 2=Participatory approach

25. Perceived/experienced reasons for effectiveness

No.	Reasons	Tick
1	Improvement in harvest	
2	Good toilets with hand washing	
3	Land husbandry practices(e.g. Ridge alignment, manure)	
4	Good agricultural practices(one-one planting)	
5	Improvement in culture of savings (VSL)	

26. Perceived reasons for shortfalls/failure of projects

No.	Reasons	Rank
1	Late delivery of food/inputs	
2	Unfulfilled promises	
3	Beneficiaries walking long distance	
4	Heavy workload	
5	Working long hours	

Rank: 5=Highest,4=High, 3=Medium, 2=low, 1=least

27. Outcomes of the project perceived by stakeholders

No.	Outcomes	MI(4)	VI(3)	I(2)	LI(1)
1	Improvement in food security and health status				
2	Good sanitation				
3	Land husbandry practices(e.g. Ridge alignment, manure)				
4	Good agricultural practices(one-one planting)				
5	Increase in culture of savings (VSL)				

Rank: MI=Most important, VI=Very important, I=Important, LI=Least important

28. Constraints faced by stakeholders

No	Constraints	Highest	High	Medium	Low	Least
1	Late provision of funds by donor					
2	Small quantities of food items/inputs					
3	Droughts/ Floods					
4	Drying up of water sources(wells, rivers)					
5	Poor participation of beneficiaries					
6	Other (if any) list…….					

Rank: 5=Highest, 4=High, 3=Medium, 2=low, 1=least

29. Actors to be part of social audit as perceived by stakeholders.

No	Actors	SA(6)	A(5)	N(4)	D(3)	SD(2)	NA(1)
1	Beneficiaries						
2	NGO staff						
3	AEDO,AEDC						
4	Lead Farmers						
5	Village Head						
6	Community Development Assistants						
7	VCPC, ACPC,VDC, Community Policing, ASHP						

Rank: SA=Strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly disagree, NA=Not applicable

30. What attributes should be subjected to framework of social audit?

No.	Attributes	SA(6)	A(5)	N(4)	D(3)	SD(2)	NA(1)
1	Income						
2	Food security						
3	Funding availability						
4	Adoption of GAP						
5	Adoption of climate resilient technologies						
6	Gender inclusion						
7	Percentage of utilizing funds						

Rank: SA=Strongly agree, A=Agree, N=Neutral, D=Disagree, SD=Strongly disagree, NA=Not applicable

DEVELOPING A FRAMEWORK OF SOCIAL AUDIT FOR EVALUATING PROJECTS ON CLIMATE RESILIENT AGRICULTURE IN MALAWI

By

JOSEPH TIMOTHY BEFORE

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Abstract of the thesis

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2020

Social audit as a tool for evaluating development projects and has been found to be efficient for appraising projects in various sectors like health, natural resource management, agriculture, community development, water sanitation and hygiene, land conservation etc.

In spite of the interventions by governments and non-governmental organization to ensure food security, agricultural development projects in most countries around the world had been affected with number of issues including climate change, corruption, lack of participatory evaluation mechanism as well as poor involvement of communities in decision making processes. The scenario is not different in Malawi either, specifically Phalombe district which faces a number of climate change problems like floods and droughts throughout the year.

The present study which followed expo-facto design was undertaken to assess the effectiveness of projects on climate resilient agriculture that are implemented in Phalombe, Malawi. The study analyzed the outcomes, constraints and impact of selected projects and evolved a framework of social audit for evaluating such projects. Data was analyzed using Statistical Package for Social Science (SPSS) and the results have been presented quantitatively and descriptively. A total of 120 respondents from three Extension Planning Areas of Tamani, Kasongo and Mpinda were purposively selected for the study since they had participated in climate resilient agriculture projects. The sample also included 15 staff from the three NGOs that were selected for the study.

It was found that 96 female farmers (78.3%) and 24 males (21.7%) had participated in the study which showed that more women were taking part in climate resilient agriculture projects compared to men. The research also revealed that many

people who participated in climate resilient agriculture projects were married and most of them had education upto primary school level (84.2%). Secondary level education was found to have been acquired by 8.3% of the total respondents. Lower level of education was found to contribute to poor demanding of transparency and accountability from NGOs.

Assessment of the agreement of respondents on severity of constraints showed that Kendall's coefficient of concordance W= 0.5, significant at 1 per cent which proved that there was high degree of concordance among the 120 respondents in ranking the constraints according to their importance. The major constraints identified by the beneficiaries were: drying up of water resources, drought/ flood, small quantity of food, late delivery of inputs and poor involvement in decision making

The results also showed that both beneficiaries and stakeholders agreed that AEDO and AEDC, NGO staff, Village Headman, Lead farmer, VCPC, ACPC, VDC, Community Policing, ASHP and Community Development Assistant should be part of social audit process. The components identified for social audit of climate resilient agriculture included training programmes, muster rolls, materials procured, input distribution, cash distribution and funding.

Based on the study it could be proposed that all actors mentioned in the study should be part of the process. The framework of social audit formulated as part of the study suggested the important aspects that should be subjected to social audit. This would help devise efficient ways of conducting social audit of climate resilient projects in Malawi as it had been evolved through a participatory process involving all the stakeholders of climate resilient development projects in agricultural sector.