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KUMASI**

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

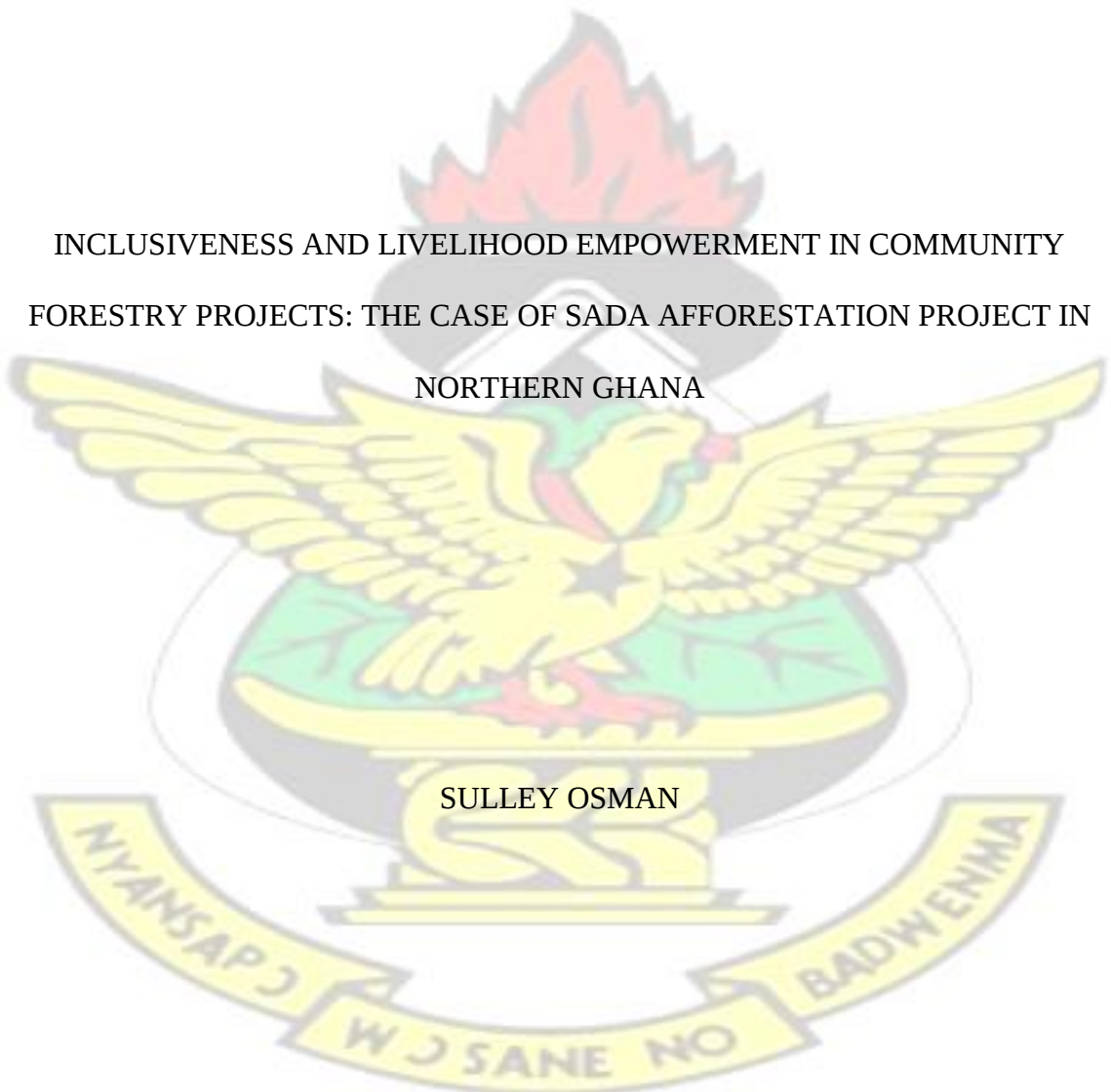
FACULTY OF RENEWABLE NATURAL RESOURCES

DEPARTMENT OF SILVICULTURE AND FOREST MANAGEMENT

**INCLUSIVENESS AND LIVELIHOOD EMPOWERMENT IN COMMUNITY
FORESTRY PROJECTS: THE CASE OF SADA AFFORESTATION PROJECT IN
NORTHERN GHANA**

SULLEY OSMAN

MAY, 2016



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NORTHERN GHANA

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES, KWAME
NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF
DEGREE OF MASTER OF PHILOSOPHY IN NATURAL RESOURCES AND
ENVIRONMENTAL GOVERNANCE

SULLEY OSMAN

MAY, 2016

DECLARATION

I hereby declare that this submission is my own work towards the award of MPhil in Natural Resources and Environmental Governance and that, to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the university, except where due acknowledgement has been made in the text.

SULLEY OSMAN

(Student)

Signature

Date

Certified by:

PROF. KYEREH BOATENG

(Supervisor)

Signature

Date

Certified by

DR. EMMANUEL ACHEAMPONG

(Head of Department)

Signature

Date

DEDICATION

I dedicate this thesis to my late father, my wife and my two sons (Osman Muslim Timtooni and Osman YasinWunnam).

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ABSTRACT

In order to ensure wood supply and reduce pressure on the natural woodlands in Northern Ghana, the Savannah Accelerated Development Authority (SADA) undertook an afforestation project in a number of communities in 2012. This study was conducted to assess inclusiveness and livelihood empowerment of the SADA afforestation project in Nanumba North and South districts of Northern Ghana. The mixed method research design was used. Data was collected through structured questionnaire from 127 field workers and triangulated with interview schedules from key informants and focus group discussion from the six selected communities. The study found that local people from the selected communities and NGOs/CSOs were not involved in decision-making. A simple chi-square test (0.062) showed that, the level of involvement did not affect field workers choice of species since ($p > 0.05$). Regarding information flow to communities, a chi-square test conducted produced the output ($p = 0.003$). It can therefore be deduced from the table above that, field workers perception of information flow to local people varies from community to community. Though the project lasted for only a year, the livelihood capitals of the beneficiary communities and more particularly the field workers were to some extent enhanced. Field workers constituting 38.6% perceived the human capital to be the most highly enhanced capital since knowledge and skills were acquired. The physical capital (7.9%) was the least enhanced. The communities and field workers were perceived as winners of livelihood outcomes due to the resources created and an increase in their income. In conclusion local people were only recruited to work on the fields, the human capital was the most highly enhanced capital but there were potentials for other capitals and there were more positive livelihood opportunities or more winners than losers.

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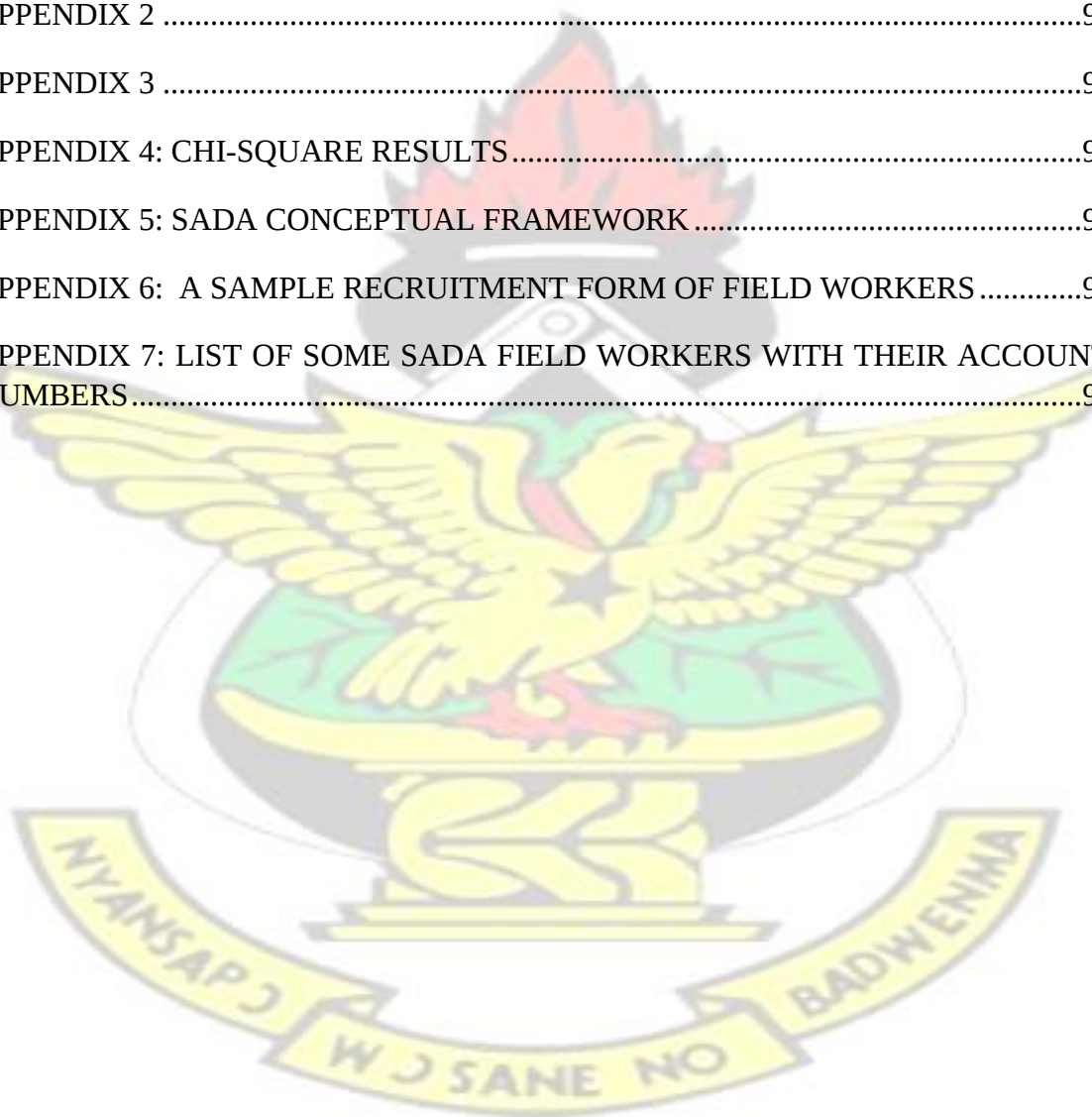
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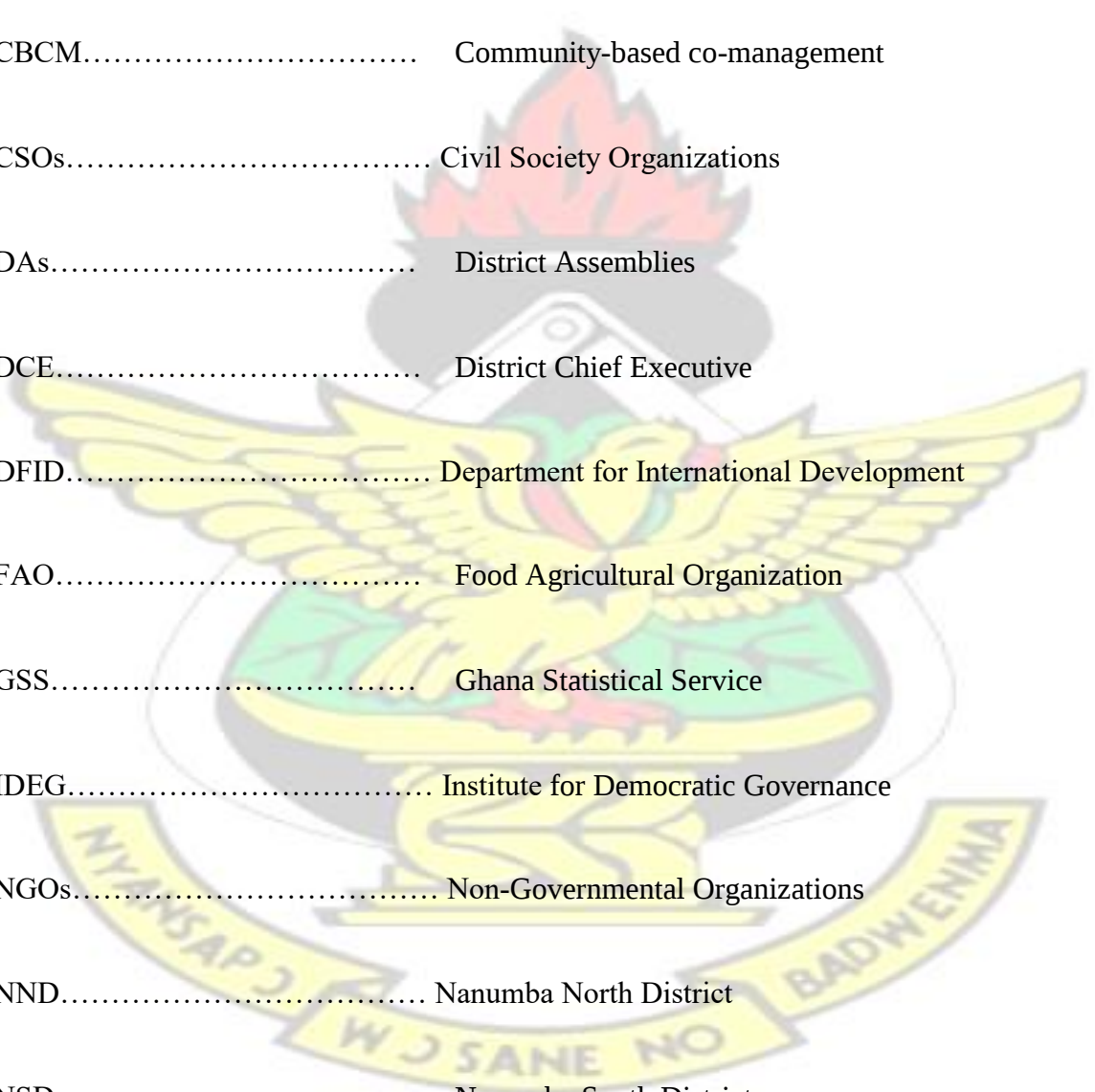
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ABBREVIATIONS AND ACRONYMS



ACIL.....	Asongtaba Cottage Industry Limited
ADRA.....	Adventist Relief Agency
AGRA.....	Alliance for Green Revolution of Africa
CBCM.....	Community-based co-management
CSOs.....	Civil Society Organizations
DAs.....	District Assemblies
DCE.....	District Chief Executive
DFID.....	Department for International Development
FAO.....	Food Agricultural Organization
GSS.....	Ghana Statistical Service
IDEG.....	Institute for Democratic Governance
NGOs.....	Non-Governmental Organizations
NND.....	Nanumba North District
NSD.....	Nanumba South District
PHC.....	Population and Housing Census

PPP..... Public-Private Partnership
PRA..... Participatory Rural Appraisal

PRS..... Poverty Reduction Strategies

SADA..... Savannah Accelerated Development Authority

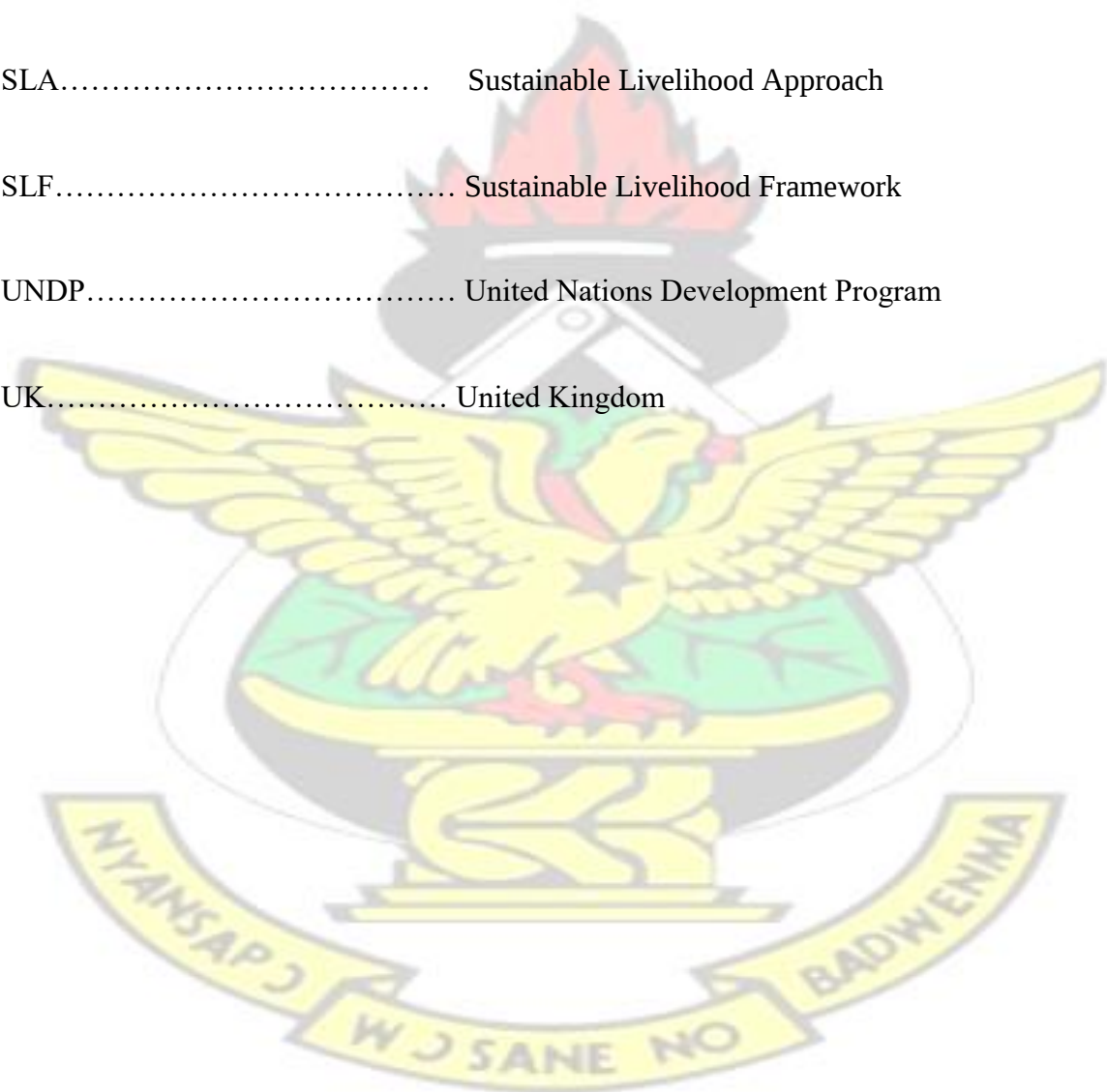
SL..... Sustainable Livelihood

SLA..... Sustainable Livelihood Approach

SLF..... Sustainable Livelihood Framework

UNDP..... United Nations Development Program

UK..... United Kingdom



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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The sustainable utilization of forest resources has been a general challenge in Northern Ghana. The rate of deforestation due to agriculture, tree harvesting and perennial fires in the regions (estimated at 1.7% per annum) is far ahead of the regions' reforestation efforts. In order to ensure wood supply to communities and reduce pressure on the natural woodlands, numerous interventions have been undertaken for several years towards promoting a sound management of the environment and its natural resources. Most of these have been spearheaded by government, NGOs and communities.

The most recent effort for enhancing the savannah woodland is the Savannah Accelerated Development Authority (SADA) afforestation project. SADA is an independent body that seeks to coordinate a holistic development agenda for the northern savannah ecological zone in Ghana. The savannah ecological zone encompasses the three Northern Regions of Ghana. These are Upper East, Upper West and the Northern Region, and include districts closer to the Northern Region that are located north of Brong-Ahafo and north of the Volta Region (SADA, 2010).

SADA is a government agency established under the SADA Act 805 by the Parliament of Ghana with an ambitious program aimed at transforming the northern part of the country ecologically, economically and socially. The ACIL-SADA afforestation project is a public-private partnership (PPP) between the Asongtaba Cottage Industry Limited (ACIL) a

private company, and SADA. The objective of the agency is mainly to ensure sustainable development using afforestation as a catalyst for climate change mitigation and improve livelihoods of the most marginalized and vulnerable citizens in the savannah ecological zone.

It is important to note that, participation and livelihood assets are key factors for a project like SADA to be successful and achieve its objective of foresting and greening the north to catalyze climate change reversal and improve the livelihoods of the people. Jamaet *al.*, (2003) stated that, the future of dry lands forests depends upon the extent to which local people are facilitated to be actively involved in the process.

In recent times, many have advocated governments to include and consult stakeholders in decision-making processes. As such, participation has been incorporated into the human rights based approach to development as a goal in itself as well as a cross cutting principle (Munyinda and Habasonda, 2013). The UN Millennium Declaration and the Millennium Development Goals emphasized the need of all persons to actively participate in the socio-economic and political processes of society.

Poverty reduction cannot be achieved without the poor's efforts. The poor people should be involved from the designing of the project to its implementation. Krantz (2001) stated that, income alone is not a panacea in raising the quality of life of the poor. The poor must play key roles in identifying and addressing their livelihood priorities. Development agents therefore need to create a platform such that they can freely access the poor to identify their interests and priorities. Numerous interventions are required at all levels and should be directed towards the most marginalized and the vulnerable in society.

Adatoet *al.*, (2006) and, Carter and Barrett (2006) are of the view that, livelihood assets can change the living standards of individuals, and households as well. They are of the opinion that, proper transformation and utilization of livelihood assets can reduce poverty of households. Kaushal and Kala (2004) therefore defined assets as „resource stocks that are at the disposal of households and are used to pursue a combination of livelihood strategies“. The access, use and interaction among these assets serve as the foundation of a livelihood system. Besides, the improvement, enhancement and up gradating of the assets can broadly indicate the promotion of sustainable livelihoods (SLs).

Poverty reduction can only be attained and sustained if the marginalized and vulnerable in society are seen not only as beneficiaries but are involved in all aspects that concern their current livelihood strategies, socio-political environment, and ability to adapt to change (Ashley & Carney 1999). Most development agents use the sustainable livelihood approach to guide their projects and programs. The Sustainable Livelihood Approach (SLA) is people-centered and designed to be participatory (DFID, 1999). It identifies what people have, and their capacity to actively shape their future. Essentially, the Sustainable Livelihood (SL) framework puts people at the centre of development as a way of enhancing the effectiveness of development assistance (Cahn, 2002). This makes the rural poor people own the process and work assiduously for its success to help them reduce poverty.

1.2 Problem Statement

In ensuring climate change reversal and sustainable livelihoods for the rural poor, there is the need for assessing what the rural poor will gain or lose with respect to afforestation projects like SADA. Ashley & Carney (1999) emphasized that; poverty reduction can only

be possible if there is coordination between micro-level activities and macro-level structures where the activities of the former inform the development policy. The macrolevel structures then provide an enabling environment and processes to support the people to build upon assets at their disposal.

However, the inclusiveness of the local people from the planning to the implementation of the project is not well known and understood by many people. Besides, it is not clear whether the SADA afforestation project led to the livelihood empowerment of the local people. The study therefore seeks to assess the inclusiveness and livelihood empowerment of the SADA afforestation project in Northern Ghana.

1.3 Justification of the Study

For an afforestation project like SADA to have an impact on rural livelihoods, the existing livelihood assets should be focused on the strengths of the people and improve upon them. The interests and priorities of the poor people should be dependent on their access to different types of assets such that the functions of those assets within changing and dynamic livelihood strategies can assist them to identify the most effective livelihood development paths (Andrew *et al.*, 2001).

It is worth noting that, in shaping the lives of the poor they should be part of the process of transformation. There is therefore the need for the holistic participation of the poor from the formulation to the implementation stage. Krantz (2001) stated that, raising the quality of life is not a matter simply of improving the incomes of the poor. The poor should be involved from the designing to the implementation. Most of it all, it means increasing people's capacity to provide themselves and lift themselves out of poverty.

1.4 Aim, Research Objectives and Questions

The aim of the research was to assess the potential impact of inclusiveness of local people in the SADA afforestation project and how the project led to livelihood empowerment. This research therefore seeks to examine the extent of inclusiveness and livelihood empowerment of the beneficiary communities of the SADA afforestation project.

The objectives of the study were to:

- Determine the extent of participation of local people in the planning and implementation of the SADA afforestation project.
- Assess the extent to which the SADA afforestation project had improved on the livelihood assets of the beneficiary communities.
- Identify the winners and losers of livelihood opportunities upon the inception of the SADA afforestation project in the beneficiary communities.

The research poses the following questions as it tries to explore and find out the extent of inclusiveness and livelihood empowerment of the SADA afforestation project of beneficiary communities:

- What was the extent of participation of local people in the planning and implementation of the SADA afforestation project?
- How has the SADA afforestation project improved on the livelihood assets of the beneficiary communities?

- Which people have gained or lost their livelihood opportunities upon the inception of the SADA afforestation project?

1.6 Organization of the Thesis

The thesis is structured into five chapters. The first chapter consists of the background to the study, statement of the problem, justification of the study, research objectives and questions. Chapter two focuses on conceptual and theoretical frameworks of relevance to the field of study. Areas of review include participation theories, community participation in forestry, livelihood empowerment, livelihood assets and the sustainable livelihood framework for livelihood analysis.

Chapter three provides description of the study area, collection of data and analysis. Chapter four focuses on results and discussion whilst chapter five is devoted to conclusions and recommendations.

CHAPTER TWO

CONCEPTUAL AND THEORETICAL FRAMEWORK

2.1 Introduction

International development policy has come to the realization that, there are linkages between environment and poverty among rural poor in developing countries who are largely dependent on natural resources and ecosystem services for their livelihoods. In affirmation to this assertion, Baumann (2002) stated that, the extensive debate in the last

decade on poverty hinged on the nexus of poverty, vulnerability, livelihoods, and access to resources.

Ashley & Carney (1999) are of the view that, poverty reduction is possible if there is a connection between micro-level activity and that macro-level structures and processes where the latter acts on the information of the former to support them build upon their own strengths. Chambers (1983) therefore suggested capacity building (development) of local people rather than top-down approach to development. Numerous people in recent times have therefore advocated for the poor to have control over their own decisions with respect to the management of their resources.

2.2 Definition of Participation

The recent trends of development with respect to “voices of the people” has necessitated participatory processes in building democratic governance and implementation of projects as it allows beneficiaries to participate in decision-making as well as have control over their resources. UNRISD (1989) definition of participation focuses on giving the people power, for without power, it becomes difficult to access and control their resources. UN also defines people’s participation as a means of mass sharing benefits of development, mass contribution to development and mass involvement in decisionmaking process to development.

Local participation according to Pretty (1995) and Wells *et al.*, (1992) are categorized into two schools of thoughts and practice. Pretty sees one school as a means to achieve specific goals in terms of improving a better management structure and also enhancing natural

resources. The other school of thought is where local participation has the potential of enhancing the power of resources.

However, Wells *et al.*, (1992) categorized participation into “beneficiary” approach and “participatory” approach. The beneficiary approach is where the local people are passively involved whilst the participatory approach seeks to involve people directly in the process of their own developmental projects. It should therefore be noted that, the success of programmes depends on the quality of the participation by the people.

2.3 Theories of Participation

The theories of participation are the premise of local participation especially in activities that are likely to affect them directly or indirectly. Theories of participation include; the psychological theories of participation (motivation and commitment, and utilizing human resources), democratic theory of participation and liberal theory of participation.

2.3.1 Motivation and Commitment

The premise of motivation and commitment according to Lines (2004) is that, the poor becomes more motivated when he sees that through his efforts activities are implemented which lead to successful enhancements in his livelihoods. Besides, the influx of the poor to other places to fend for themselves ceases. Glewet *et al.*, (1995) also stress that, participation is more likely to have a positive impact when people are aware of the purpose of a project. This makes them adequately ready for the wind of change that is going to blow. In this regard, locals will either accept or reject development work or project on the basis of the extent of their participation.

2.3.2 Utilizing Human Resources

Self-efficacy and learned helplessness are the two critical factors in utilizing human resources. Self-efficacy according to Bandura (1997) is when somebody perceives her/himself as being capable to contribute useful information or otherwise, he might not speak during a discourse and as such keeping valuable information to himself. The individual fears to opine his or her opinion because he/she has no social recognition in the society. Narayan *et al.*, (2000) emphasized that, the voices of such individuals might be most important to include in the development work, since they are often the ones who are the poorest.

Peterson *et al.*, (1993) as cited in Franzoi (2003) also saw learned helplessness as a key factor regarding utilizing human resources. These are people who have experienced that they have not been able to influence their own life and therefore develop an attitude of hopelessness and passivity. Such individuals even engage in activities that might make their lives worse off.

2.3.3 Democratic Theory of Participation

Democracy is one of the main issues to consider when elaborating the concept of participation. It is about the inclusion of people within decision-making processes. The main theme of people's participation can be seen in the definition of democracy as given by Abraham Lincoln as „government of the people, for the people and by the people.

Belisa (2010) argues that, the inclusion of interests and opinions are of individuals in a decision-making processes is debatable. Whilst one school thinks the concerns and interests

of the people should mainly take place through channels of representative democracy others argue political inclusion should be through channels that ensure broad stakeholder engagement that is participatory in nature. Belisa further stated that, issues as to „who is in“ and „who is out“ are likely to pop-up when trying to ensure inclusion. As such, Smith (2005) as cited in Belisa (2010) emphasized the need for careful selection of participants as being crucial for the achievement of inclusion.

2.3.4 Liberal Theory of Participation

The liberal school of thought perceives individuals as self-dependent, self-interested and with morally equivalent interests. The individuals“ interests are paramount and that, they should not be barred from attaining their interests“ once they do not interfere with the rights and interests of other citizens. Numerous authors have advocated citizen participation as a way to allow citizens to pursue their own interests, desires, and preferences. Pateman (1970) stated that the essence of participation is to ensure private interestsprotection. The objective of participation as opined by Verba and Nie (1972) is matching the demands of the populace to that of policies and interventions by authorities.

However, some have criticized the essence of liberalism. Sagoff (1988) identified preferences and values as the two main types of interests that are often lumped together and emphasized that values but not preferences, should serve as the basis of public policy making. Sagoff (1988) therefore defines preferences as what people want for themselves and to him this cannot help beneficiaries to achieve their objectives. Sagoff (1988) on the other hand defines values as what a community perceives to be right. It is worth noting

that, values but not preferences per the definition of Sagoff (1988) should be the basis of a request by an individual, community and a nation at large.

2.4 Participation in Development

Participation as a concept in community development embodies not only the rural poor but also other stakeholders and sections of civil society. This is demonstrated in the World Bank (1995) definition of participation as a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them. According to Carnea (1985) local participation is about empowering people to develop and utilize their own capacities such that they can be actors rather than subjects and can control the projects that affect their lives. It can be deduced from Carnea's (1985) definition that, capacity building should be focal point of local participation.

Karl (2002) is of the opinion that, numerous definitions and concepts of participation have been used in development projects by different authors and multilateral agencies to promote the concept of participation. The definitions of participation by the various authors can be seen as relative and contextual in terms of individual, community or an organization.

In view of the varying definitions of participation, Oakley (1988) distinguished popular participation along three broad categories:

- Participation as contribution where rural people participate voluntarily to predetermined programmes and projects by development agencies and donors.
- Participation as organization which is either externally conceived or emerging as a result of the process of participation.

- Participation as empowerment which enables people to develop skills and abilities to become more self-reliant and independent and as such can make vital decisions for their own development.

2.4.1 Citizenship as Participation

International development policies have advocated and supported participation at all levels. According to Gaventa *et al.* (1999), participation can be multidisciplinary and multifaceted into democratic governance processes. The concept of participation needs to be explicitly defined such that there is paradigm shift from being only concerned with beneficiaries or the excluded to a concern with broad stakeholder engagement. Table 2.1 shows the perspective of the redefinition of participation.

Table 2.1: Redefinition of participation

From		To
Beneficiary	→	Citizen
Project	→	Policy
Consultation	→	Decision-making
Appraisal	→	Implementation
Micro	→	Macro

Adapted from (Gaventa *et al.*, 1999)

2.4.2 Social Marginalization and Exclusion in Participation

The indigenous knowledge (IK) of the rural people in recent times has been relegated to the background. The rural poor had their own ways of managing, utilizing and conserving natural resources to ensure inter and intra-generational equity. Pimbert (2004) however stated that, powerful actors seek to control natural resource management through discourse, law and coercion. Moreover, Karl (2002) and Pimbert (2004) both noted that, policies and practices developed at central level are mostly not responsive to the policy needs at local level. This makes it not conducive to local livelihood strategies. Karl (2002) observed that, in local populations the poor and marginalized groups have very weak or indirect influence on policy frameworks that might impact on their livelihoods.

Pimbert (2004) opined that, soil erosion, degradation of rangelands, desertification, loss of forests, the destruction of wildlife and fisheries are serious problems that require immediate intervention to prevent further deterioration. This can be effectively done by involving the local people.

2.4.3 Gender Participation in Development

Every human should be allowed and given the opportunity to participate in decisions that define or affect his or her life. This right is the root of equal participation in decision-making among women and men. Cahn (2005) emphasized the need for women to participate with men so that their perspectives will be effectively incorporated in decision-making. Krantz (2001) asserted that, policies, institutions and processes (PIPs) can grant or deny one access to livelihood assets and outcomes. The access to livelihood assets and outcomes will be dependent on the extent of participation of the individual.

According to FAO (2011) women contribute immensely to the rural economies in all developing countries through agricultural. Their roles range between and within regions and change rapidly globally, where economic and social forces are transforming the agricultural sector. Rural women pursue multiple livelihood strategies to be able to cope and manage their households. FAO (2011) further stated that, women pursue different livelihood strategies such as producing agricultural crops, rearing animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes.

Despite these numerous roles in agriculture, women face more constraints than men. Studies have identified a gender gap in agricultural productivity of 20 to 30 percentage points in disadvantage of women (Fontana and Paciello, 2010).

2.4.4 Empowerment of the Local People through Participation

Participatory processes on livelihoods should lead to empowerment. Empowerment of local people through participation depends on how participation is defined and understood. Hoare *et al.*, (1993) described empowerment as a social action process that promotes participation of people, organizations and communities towards either an individual or community attainment of goals. This will enhance an individual and community control, political efficacy, improved quality of life, and social justice. According to Heller (2003), participation can mean two things, one being that people taking part in an activity and another being that people have power to affect decision-making which contributes to empowerment. Heller is of the view that, when people are engaged in discussions without

getting to affect the themes that will be discussed, they do not learn the skills for analyzing a situation and deciding how to take action in order to get the wanted information.

Heller's assertion agrees with Carnea (1985) who stated that, local participation is about empowering people to develop and utilize their own capacities such that they can be actors rather than subjects and can control the projects that affect their lives. This therefore means that the people will not cease to be dependent on outsiders for help if they are not empowered. The definition of participation should be clearly stated as to whether it can lead to empowerment or not.

Table 2.2 shows a ladder of citizen empowerment. Independent control indicates the highest citizen control while civic hype under the citizen non-participation is the lowest level of empowerment and it demonstrates the exclusion of people in activities but hyped as if they were actively empowered.

Table 2.2: A ladder of citizen empowerment

CITIZEN CONTROL
12. Independent control
11. Entrusted control
CITIZEN PARTICIPATION
10. Delegated power
9. Partnership
8. Limited decentralized decision-making
7. Effective advisory board
6. Genuine consultation
5. High quality information

CITIZEN NON-PARTICIPATION

4. Customer care
 3. Poor information
 2. Cynical consultation
 1. Civic hype
-

Source: Adapted from (Burns *et al.*, 1994)

2.5 Continuum of Participation

The World Bank used a continuum of participation as a poverty reduction strategy (PRS) process which is also referred to as „ladder of participation“ as used by Arnstein (1969) and was summarized as:

- Information sharing: one-way flows of information to the public.
- Consultation: two-way flow of information between the coordinators of the consultation and the public.
- Joint decision-making: engaging all stakeholders concerned to take a decision.
- Empowerment: transfer of control over decision-making and resources to stakeholders.

Arnstein (1969) clearly described the level of participation using a ladder which he described as ladder of participation.

The bottom levels of the ladder are (1) Manipulation and (2) Therapy. These levels show non-participation but some take it as a form of participation. These rungs are also described by Burns *et al.*, (1994) as non-participation which is usually hyped as participation. Levels 3 and 4 indicating informing and consultation respectively are described by Arnstein (1969)

as tokenism. These levels give an opportunity for the poor to speak and be heard but have no power to ensure that their interests and concerns are incorporated. From the ladder, citizen power and control increase as one climbs up.

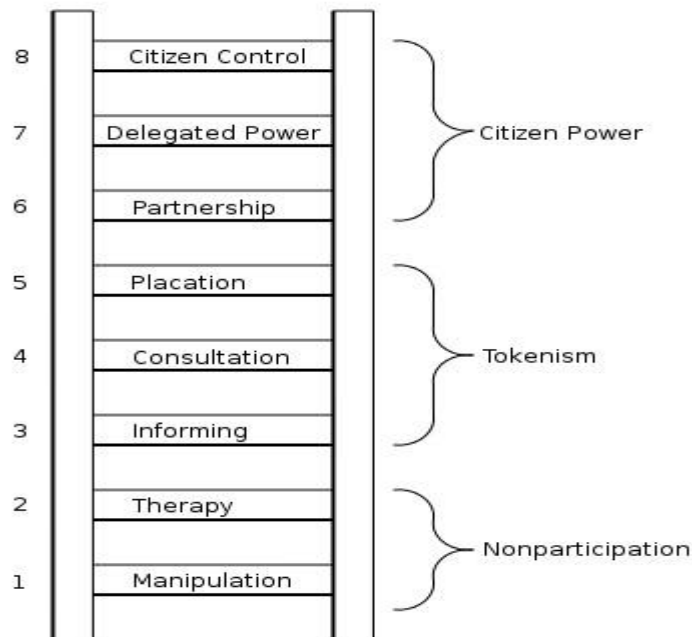


Figure 2.1: A ladder of participation

Source: Adapted from (Arnstein, 1969)

2.6 Community Participation

Community participation used to be voluntary but in recent times, the trend has changed due to the gains or benefits associated with community activities. As such, Mansuri&Rao (2004) stated that, participatory exercises are often manipulated at the community levels by politicians because of their powers and authority and as such, they decide as to who should be part or not. The concept of participation has been widely used in development, referring primarily to participation in projects or in the community. Now the processes of

inclusion and critical reflection encouraged by participatory methods have been brought into the debate on good governance (Cornwall, 2001).

According to Lucius and Dingie (2000), community participation is not a genuine attempt in empowering communities to have the options to choose development freely, but rather a tool to sell preconceived proposals. Participation processes often begin only after projects have already been designed. The process is not an attempt to ascertain the outcome and priorities, but rather to gain acceptance. Participation is often constrained at the state level by partisanship, funding limitations, rigidity, the resistance of local and national bureaucrats, and the state's inability to respond effectively to the felt needs of the populace (Morgan, 1993)

Forest resources are well managed through community participation. There is no clear relationship between human beings and forests. Human beings depend on the forest resources. The protection and conservation of the forest resources is dependent on human beings. Mensah (2003) emphasized that, the excessive utilization of natural resources and its management depends on the values that the people attach to the resources.

2.7 Involving Civil Society Actors and Power Relations in Participation

Civil society organizations, NGOs and international agencies and donors mostly play significant roles in enhancing the well-being of the rural poor. These organizations and agencies should be part of the process of rural development more especially in poverty reduction for sustainable rural livelihoods. It is noted by Scoones (1998) that, power relations are encompassed within institutional forms and this can promote institutional

practices, rules and norms. Scoones (1998) is of the opinion that, institutions are dynamic and they can change at all times. We should be more cautious about citizen participation since there is power play. Gaventa *et al.*, (1999) asserted that, citizen participation is about power and it is exercised by different social actors where there is an interaction between citizens and local authorities.

2.8 Local Institutional Arrangements in Participation

Rural settings have their own institutional arrangements for participation in decisionmaking. Mutizwa(1996) is of the view that, to avert frictions at the local level, it is imperative to recognize the existing local level institutions and structures rather than eliminating those structures completely. They further stated that, government structures restrict the influence of traditional decision-making bodies in local affairs. According to Scoones (1998), sustainable livelihood interventions should be designed such that institutional processes at the local level are well understood and incorporated. This will help remove the barriers and provide opportunities for sustainable livelihoods. Conflicts in respect to benefit sharing will also be curtailed.

2.9 Approaches to Citizen Participation in Natural Resources Management (NRM)

Chase *et al.*, (2000) identified five approaches to citizen participation in natural resource management:

- Expert Authority Approach: Management decisions are the full responsibility of the agencies and they do not factor in citizens' concerns in any decision-making process.

- **Passive-Receptive Approach:** Agencies consider citizen input only if citizens take the initiative to contact agencies but the agencies themselves will not seek for the concerns of citizens.
- **Inquisitive Approach:** Agencies strategically gather the inputs of citizens through public fora and then compare the inputs as they make policy decisions.
- **Transactional Approach:** Agencies bring citizens to work together and facilitate the process for citizens to reach agreement that seems to be the best management decisions. Citizens are made to be part of the decision-making processes in weighing the different stakeholders' perspectives.
- **Co-management:** Stakeholders are not only involved in decision-making, but throughout the whole process from the designing to the implementation of projects. Here, agencies work in partnership with local government, nongovernmental organizations, and other stakeholders from the project designing to implementation.

Chase *et al.*, (2000) argued that these approaches form a logical continuum over which the relative influence of citizens and agencies over resource management varies. Thus, from total agency control under the expert authority approach to broad power sharing under co-management where there is empowerment of citizens.

2.10 Genesis and the Participatory Concept of Sustainable Livelihood Approach (SLA)

Sustainable livelihood (SL) is said to have arisen out of the 1992 Earth Summit held in Rio and its promotion of Agenda 21 (Agenda for the 21st Century). The aim of Agenda 21 is to ensure equal opportunity for everyone to earn a sustainable livelihood. The adoption

of the concept of sustainable livelihood made room for sustainable livelihood approach (SLA). SLA was however mainstreamed in the late 1990s.

According to the donor community as stated by Carney (1998) and Alterelli and Carloni (2000) that SL moves from needs-based and resource-centred solutions to focus on building the capacity of people to bring about a sustainable change. In their view building on the capacity of the people should be the focal point of any developmental project.

Sustainability in the context of livelihood according to Chambers and Conway (1992) includes environmental, economic and social sustainability. Livelihood sustainability by many authors (Scoones, 1998 and Ashley and Carney, 1999) is simplified as the ability of livelihood to withstand shocks and stresses and provide livelihood outcomes while maintaining resources, assets and capabilities.

Ashley and Carney (1999) are of the opinion that, SL approach was developed within research institutes, NGOs and donors and it is constantly evolving. The Institute of Development Studies was one of such research institutes; CARE and Oxfam were some of the NGOs and Department for International Development and the United Nations Development Program were the donors.

It should be noted that, Participatory Rural Appraisal (PRA) is the foundation of the SL framework development (DFID, 2000). In other words, PRA is the basis of sustainable livelihood.

Chambers (1994) is of the opinion that, though development work is often described as being done in a PRA-manner, it seems polemic because the local people are not empowered at all. Brocklesby and Holland (1999) have also observed that, sustainable livelihoods

approaches embody a technocratic development drive which is not in accordance with the realities that underpin much of community development work.

2.11 Theoretical Perspectives of SLA

The ecological margins in which the poor find themselves, as well as the low level of access and rights over productive natural resources as stated by Baumann (2002), is a major factor contributing to rural poverty. There has been myriad of arguments of poverty in recent times which are centred on the nexus of poverty, vulnerability, livelihoods and access to resources.

Chambers and Conway (1992) have observed that, sustainable livelihood approaches are not restricted to only the traditional definition and notion of poverty reduction but also encompass the non-monetary aspects. Scoones (1998) definition of sustainable livelihood focuses on the resilience and robustness but yet able to withstand all circumstances without undermining the natural resource base. This definition by Scoones (1998) emphasizes on inter and intra-generational equity which agrees with the definition of sustainable development by the World Commission on Environment and Development (WCED, 1987).

This study explores the livelihood theories and the SLA framework developed by DFID as the main basis of this study. The premise is on the fact as asserted by Carney (1998) that, the DFID approach aims to promote sustainable livelihood through direct support to „contribute to the robustness of and increase opportunities available to individuals/households/communities by building up their assets“- either inclusive (for example education programmes) or focused on people (for example micro-finance for women).Carney (1998) and, Hussein and Nelson (1998) perceive the SLA framework as

the basic dynamics of livelihoods and how people are able to transform the set of assets as a basis for their livelihoods.

2.12 Principles of Sustainable Livelihood Analysis

The use of sustainable livelihoods approach by DFID (2000) helps to improve all stages of a programme from the designing to the implementation of the programme so that the priorities of the poor can be addressed. The following underscore the principles of the SLA.

- People-centred: focusing on issues that matter to people.
- Holistic: identify challenges and opportunities irrespective of the sector, geographical space or level at which they occur.
- Responsive and participatory: the poor should be involved in all processes of the project.
- Multi-level: the micro-level activity informs the development of the type of policy by the macro-level structures and processes to support people.
- Conducted in partnership: it can be done with both the public and the private entities.
- Sustainable: it should be economic, institutional, social and environmentally sustainable.
- Dynamic: recognize dynamic nature of livelihood strategies, respond flexibly, and develop long-term commitments.

2.13 Sustainable Livelihood Framework (SLF)

The SLF is accepted and widely used by a vast number of research institutions and organizations, namely DFID, UNDP, as well as NGOs such as CARE and Oxfam (DFID, 1997; Ashley and Carney, 1999). The micro-level activities and the macro-level structures and processes by various people are important linkages to analyze. The sustainable livelihood framework will therefore be the most appropriate conceptual framework to use.

The SLF comprises five components (DFID 2002). The first component of the SLF is the vulnerability which indicates the context in which the individual finds him/herself. This comprises shocks (e.g. floods, civil or natural resource conflicts), trends (i.e. more predictable events, e.g. availability of food stocks), and seasonal fluctuations in prices, employment or food availability. The livelihood assets constitute the second component and these depict the vulnerability context of the individual. The five livelihood assets include; natural capital (e.g. natural resource stocks), social capital (e.g. social networks and relationships of trust), human capital (e.g. skills, knowledge, health, nutrition), financial capital (e.g. savings, income, remittances) and physical capital (e.g. communication, infrastructure, transport). The third element is about the combination of activities and options (livelihood strategies) in order to accomplish positive livelihood outcomes. Finally, policies, institutions and processes (PIPs) that aid in transforming structures and processes is the fourth component. They include laws, policies, institutions, cultures, levels of governance and private sector (Carney 1998; DFID 2002).

The study focuses on building the livelihood assets of the beneficiary communities.

KEY

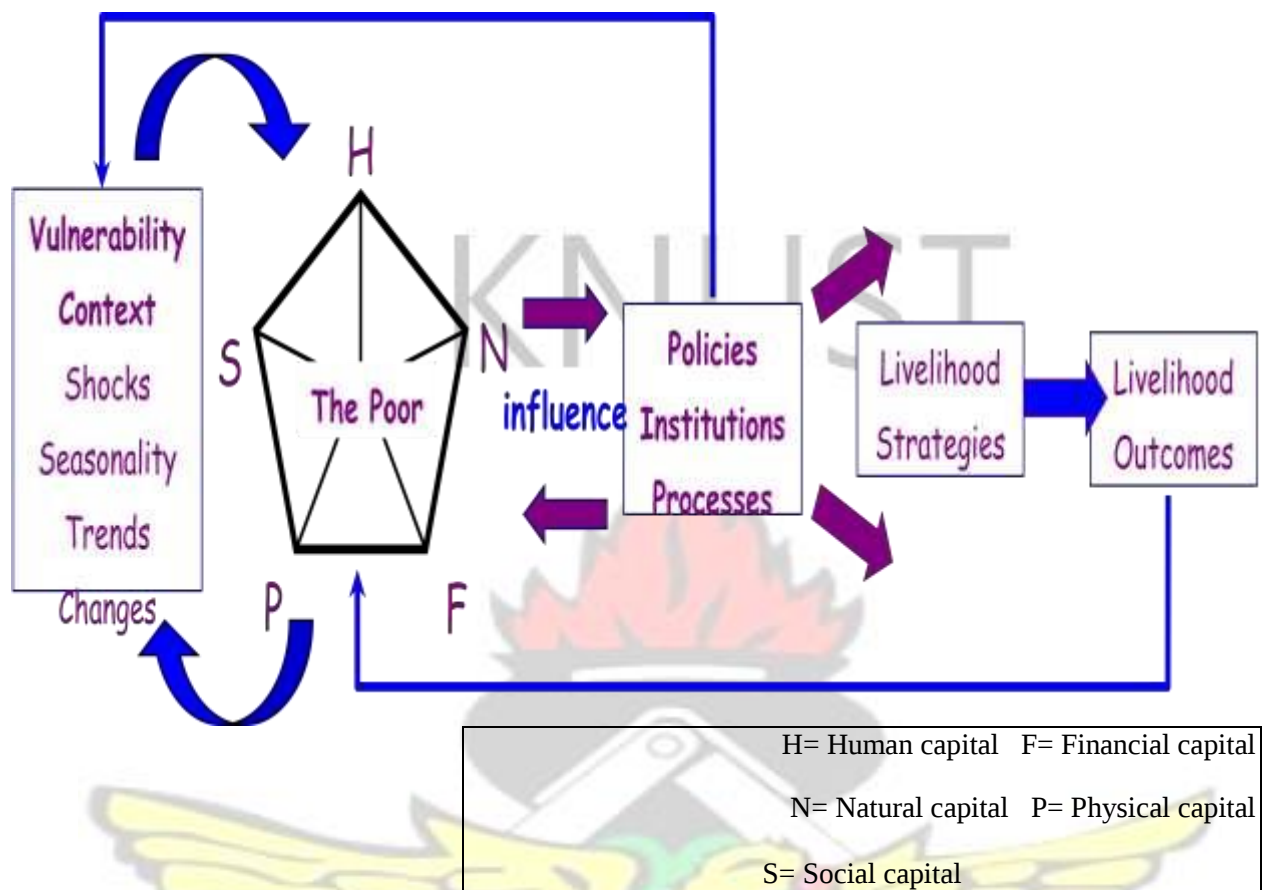


Figure 2.2: Sustainable livelihood framework

Source: Adapted from (DFID, 2000)

2.14 Asset Pentagon/Hexagon

The livelihood framework identifies five core assets as the building blocks of a sustainable livelihood. These are natural, social, human, physical and financial capitals. Cahn (2006) opined that, the land and the sea can be drawn upon to provide livelihoods for rural people. The use of livelihood assets by people according to Bebbington (1999) is relative in terms of context and social group.

Baumann (2002) is also of the view that, increasing livelihood assets is the main strategy for enhancing people's livelihood outcomes as people depend on a vast range of capitals to attain positive outcomes. It should however be noted that, an access to only one particular asset is likely to be a limitation for the poor. Scoones and Wolmer (2003) have observed that, assets are sometimes highly influenced by institutional and policy mediation that impact on the community, household and individual.

Asset pentagon was developed to establish the interrelationships between peoples' access to different livelihood assets (Carney, 1998). Political capital has been advocated to be part of the portfolio of assets. It is on this basis that some authors describe it as assets hexagon. Baumann (2002) stated although sustainable livelihood framework is restricted to the five kinds of capital, some add political capital (i.e. citizenship, enfranchisement and membership in political parties) as a sixth type of asset.

2.15 Community Forestry

Community forestry has been defined in different ways. FAO (1996) defined community forestry as the protection, conservation and utilization of forests resources in a community

to improve livelihoods holistically. This definition by FAO tries to give local people the power in the control and management of their resources such that their livelihoods will be enhanced. Duinkeret *al.*, (1994) emphatically criticized the definition given by FAO with the reason that it lacks thorough explanation in terms of decision-making authority, representation and equity. These are actually vital with respect to local participation that will inure to the benefits of a community. Also, Martel & Whyte (1992) defined community forestry as a village-level forestry activity, where the local people collectively plan and implement decisions as to manage and utilize the forest resources without undermining the natural resource base. However, some have argued that, community forestry as defined by Martel & Whyte should be seen beyond the village-level since community forestry activities and benefits can be realized in the urban areas as well

(Gilmour and Fisher, 1991). It is worth to note that, peoples' participation in decision making in community forestry is paramount as emphasized by Eckholmet *al.*, (1984).

Community participation is indispensable as far as community forestry is concerned. Chen *et al.*, (2012) emphasized that, it is extremely essential to strengthen community participation through a more sensitive project design and clear attention as to who is participating and who is being left out. Such an approach to design will lead to both enhanced natural resources conservation and increased livelihoods for all.

Community forestry according to Kings (2004), is generally a small scale, and may encompass community management of water catchment areas, sustainable logging of indigenous species on communal land, community plantations or individual farmer woodlots. Natural resources management stakeholders more especially government, needs to adjust varying roles in the area of community forestry. Many researchers are of the view

that, Community-Based Collaborative Management (CBCM) project design should conform to the realities of local communities.

2.16 Rural Employment

Employment opportunities in the rural settings are minimal. Majority of the rural poor are dependent on forest resources. Fometer and Vermaak (2001) are of the view that forest resources have the potential to contribute positively to the improvement of rural livelihoods when properly managed. Islam & Sato (2012) and Islam *et al.*, (2013) have also observed that, forest resources and its management play a vital role in rural development especially in poverty alleviation strategies.

A study by Faggio and Silva (2012) suggested that, self-employment, business creation and innovation are well lined-up in urban areas since they capture certain economic phenomenon such as genuine entrepreneurship. This is however not the case for rural areas. Schoeffel (1996) cited low labour input and productivity as the constraints to development initiatives in the primary sectors. Rural employment includes farming, selfemployment, small enterprises and wage labour in agriculture which most of the time is not sufficiently remunerated despite long hours of working and rural women are usually affected (Fontana and Paciello, 2010). The women are sometimes not employed at all and if they are, their number is insignificant juxtaposing that with men (Sialao, 2003).Buvinic (1989) is of the opinion that, the employment of women leads to their income expansion and this can empower them socially, economically and also promotes gender equity. A Study on Employment in Rural Areas (SERA, 2006) also indicated that, women have a decisive role in the management of small farms, often looking after the accounts, and taking

responsibility for the development of new on-farm gainful activities, such as agritourism or direct selling.

2.17 Savannah Accelerated Development Authority (SADA)

Despite rapid economic growth in Ghana for the last decade, there still exists a yawning development gap between Ghana's north and south in terms of most of the development indicators (Ghana Statistical Service, 2000). According to a Poverty Assessment Project (World Bank, 2010), poverty rates in the Savannah Ecological zone are 52 percent compared to the national average of 28 percent. This culminated in the implementation of the Savannah Accelerated Development Authority (SADA).

2.17.1 Objectives of SADA

The SADA Strategy and Work Plan (2010) seeks to achieve the following objectives:

- a) Alleviation of poverty
- b) Adaptation to climate change through tree planting
- c) Building the human capital, economic infrastructure, investment and private sector base to help in the transformation of northern Ghana.

2.17.2 Theoretical Framework of SADA Programme

DFID (2005) argues that discussion on regional inequality must be based on growth. The aim of the SADA programme is to ensure rapid and sustainable development of the North. This can be attained by ensuring the development of a healthy and diversified economy based on the most abundant resources in the North (land and sunshine). The emerging

economy must show resilience to weather changes, environmentally friendly, pro-poor and gender sensitive (SADA, 2010). That means that, it should be economical, social and environmentally sustainable. The achievement of this objective should result in doubling per capita income and reducing poverty to at most 20% over the next 20 years.

There are four entry points for the SADA programme. These are marketing based outgrower system/intensive production of small ruminants: pigs and guinea fowls, horticulture production to diversify into export agriculture, tree crop production as a source of steady flow of incomes and selected crop production (agro-processing as reliable source of demand). This thesis focuses on only the tree crop production

(afforestation project) that seeks to:

- Create protective buffer against floods.
- Renew soils and enhance environmental regeneration.
- Provide opportunities for peasants especially women to own assets in economic trees (SADA, 2010).

Inclusiveness and livelihood empowerment of community forestry projects with respect to SADA afforestation of beneficiary communities was examined and analyzed on the premise of the extent of local participation, improvement on the livelihood assets of beneficiary communities, and winners and losers of livelihood opportunities of the beneficiary communities.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The mixed method research design was used for the study. This involved triangulation of both quantitative and qualitative methods of data collection. Triangulation focuses on collecting and analyzing both qualitative and quantitative data in a single study (Creswell, 2003). Besides, Mertens (2003) has opined that the use of multiple sources of evidence in a study helps one to have a better understanding of the research problem by converging numeric trends from quantitative data and specific details from qualitative data. Indeed, the complex nature of livelihood strategies that people adopt in the construction of their livelihoods (Ellis, 2000) and the different number of stakeholders involved in providing livelihood security, call for the use of mixed approach to data collection. Hence, both questionnaires survey (quantitative method), and in-depth interview, focus group discussion (FGD) and observation (qualitative methods) were used to collect data from the field.

3.2 Study area

The study was carried out in the Nanumba North and Nanumba South districts in the Northern Region of Ghana. These two districts are predominantly farming communities.

3.2.1 Nanumba –North District

The Nanumba North District (NND) is one of the 26 districts in the Northern Region of Ghana. It was created as a separate district in 2004 under LI 1754 when the then Nanumba District was split into two – North and South which covers an area of 1,986 km². It is found in the eastern part of the Northern Region and lies between latitudes 8.5⁰N and 9.5⁰N and longitude 0.57⁰E and 0.5⁰E.

The district shares boundaries with East Gonja District to the west and Yendi Municipal to the north. To the east, it shares boundaries with Zabzugu District, to the south with Kpandai District and to the south east with the Nanumba-South. The administrative district capital is Bimbilla.. Nanumba North District (NND) had a population of 141,584 with the females being 71,587 as the majority (GSS-PHC, 2010) .Two major ethnic groups, namely the Nanumbas and Konkombas and a few Basares and other minority tribes occupy the district. The major languages spoken are Nanunli and Konkomba. Figure 3.1 is a map of Nanumba North District showing the communities of the study area.

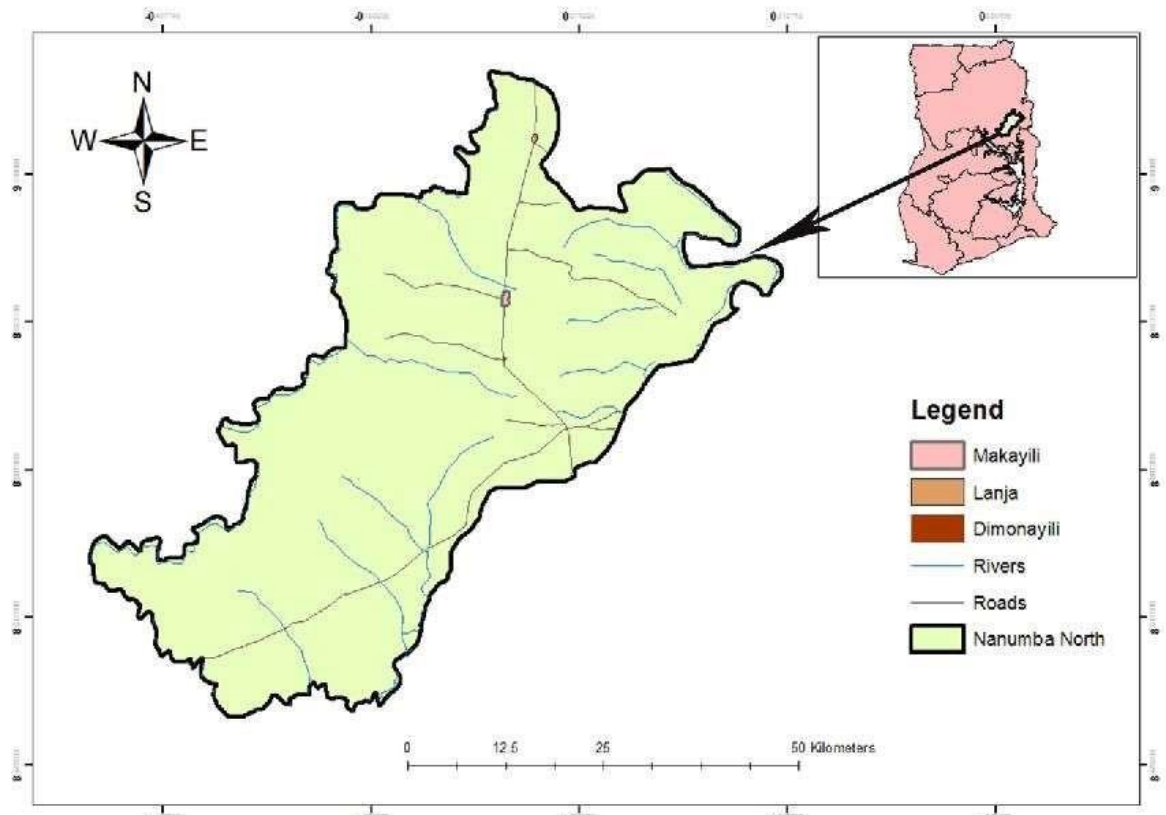


Figure 3.1: Map of Nanumba North District indicating the three study areas

3.2.2 Nanumba-South District

The Nanumba-South District (NSD) lies between Latitude 8.5° N & 9.0° N and Longitude 0.5°E & 0.5°W of the Greenwich Meridian, with a total land area of around 1,300 km². The District is found in the eastern corridor of the Northern Region of Ghana and shares boundaries with: ZabzuguTatale District and the Republic of Togo to the East; East Gonja to the West; Nkwanta District of the Volta Region to the South-East; and Nanumba North District to the North and Kpandai District to the South-West. Nanumba

South District (NSD) had a total population of 93,464 with the males being 46,766 as the majority (GSS-PHC, 2010). The main occupation of most of the people from the two districts is farming. It has an annual growth rate of 2.7% consisting of 147 communities.

The major occupation of the people is agriculture. Conservative indications are that about 85% of the people are in this sector. Crops grown are roots and tubers, cereals, legumes and tree crops such as cashew and teak. The district is a net exporter of legumes, roots & tubers. Yam, groundnuts, maize and cassava are produced in the district to feed other areas in the country. Figure 3.2 is a map of Nanumba South District showing the communities of the study area.

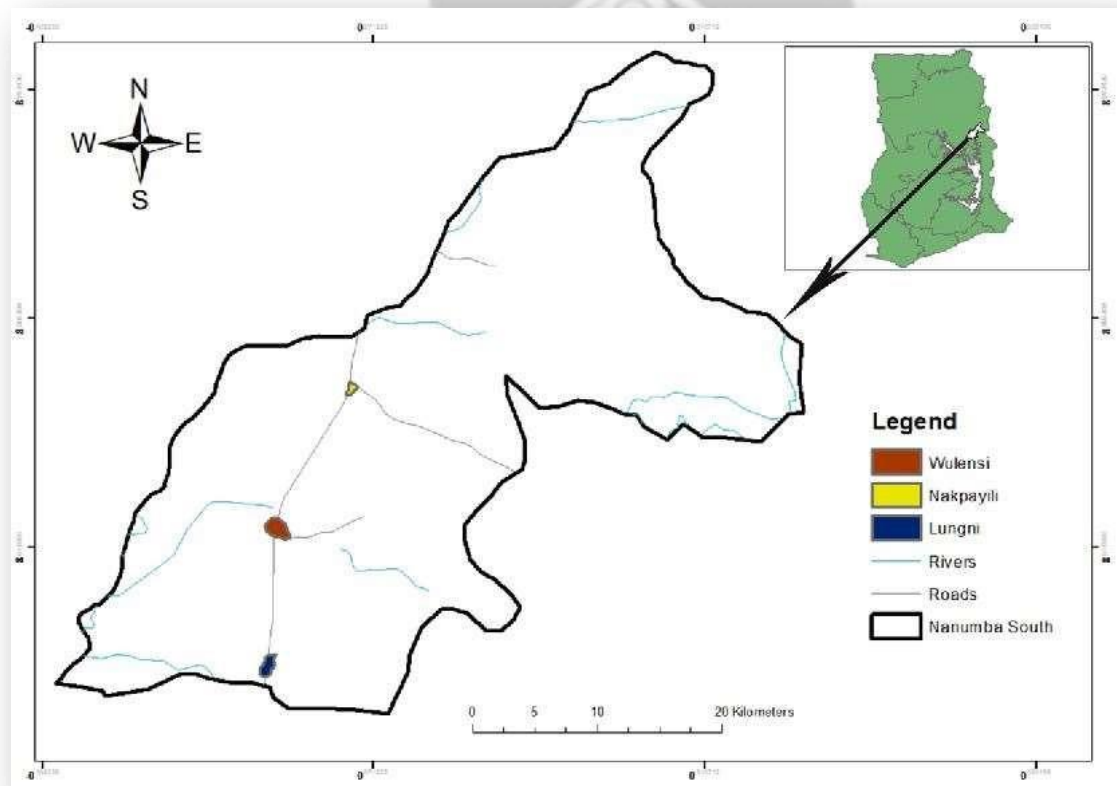


Figure 3.2: Map of Nanumba South District indicating the three study areas

3.3 Sources of Data

The research was conducted by relying on primary and secondary data sources. The primary data were obtained from the following people as respondents during the research; field workers who were working on the project and key informants (DAs, SADA, and NGOs into poverty and livelihood empowerment). Table 3.1 shows various sources of primary data, type of data and methods that were used in the data collection.

Table 3.1 Sources of primary data, type of data and methods of Data Collection

Sources of Data	Type of Data	Methods of Data Collection
Individual Beneficiaries	Quantitative	Questionnaires
Group of Beneficiaries	Qualitative	Focus Group Discussion (FGD)
Key Informants (SADA, DCEs NGOs into Livelihood)	Qualitative	Interview schedules

Source: Field survey, 2015

For secondary data, the researcher relied on the 2010 Population and Housing Census (PHC) of the two districts to have an insight of the population of males and females, and the economic activities in the districts.

3.4 Sampling procedure

Babbie (2005) defined sampling as the process of selecting a few (sample) from a bigger group or sampling population to become the basis for estimating or predicting the

prevalence of an unknown piece of information, situation, or outcome regarding the bigger group.

Two zones were first randomly sampled from the four clusters of zones of the SADA afforestation project. The two randomly sampled zones were the central and southern zones. These two zones had both 13 districts each and a district each was simply randomly sampled from the two zones. Nanumba North was randomly sampled from the central zone whilst Nanumba South was randomly sampled from the southern zone.

All the workers from the selected communities were purposively selected for the quantitative data collection except two workers who passed on and nine had travelled outside their communities. Focus group discussion and the interview schedules were used as the instruments for collecting qualitative data. This helped to affirm or otherwise discard the information from the field workers. Key informants for the focus group discussion were purposively selected based on their knowledge and interest in the afforestation project whilst some field workers were randomly sampled to be part of the focus group discussion.

Langford *et al.*, (2002) stated that, a small group of (6-10) can be used for a focus group discussion (FGD). Therefore, a group of at least six respondents comprising the opinion leaders and workers on the afforestation project were used for the focus group discussion. The 58 respondents for the focus group discussion were either purposively selected (key informants) or simply randomly sampled (some field workers) from the six communities.

The researcher and two well-trained assistants did the focus group discussions and the questionnaires administration. Besides the focus group discussion, interview schedules were used in the triangulation process. These respondents were people with the expertise

and interest which have an influence with respect to inclusiveness and livelihood empowerment of the SADA afforestation project in the beneficiary communities.

Fourteen respondents were interviewed.

3.4.1 Sampling units

The sampling units were field workers recruited from the six communities and key informants from the two districts including an officer each from the regional office of SADA and SEND-Ghana. In Nanumba-North District, 42 workers were purposively selected from the three communities for the quantitative data whilst 28 members from the three beneficiary communities were either purposively selected (key informants) or simply randomly sampled (some field workers) for the focus group discussion (FGD). Also 6 key informants were purposively interviewed bringing the number of total respondents in the district to 76.

In Nanumba South District (NSD), 85 workers were used for the quantitative data whilst 30 respondents were sampled for the FGD. Besides, six key informants based on their expertise and influence were interviewed. A total of 121 respondents were used for the entire study in the NSD. Officers from SEND-Ghana and SADA afforestation were interviewed. The six communities were Dimonayili, Makayili, Lanja, Wulensi, Nakpayili and Lungni (Table 3.2).

Table 3.2 Description of sampling size for the study

Districts	Communities	Beneficiaries FGD	Key Informants
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	Dimonayili	8	8	
Nanumba North	Makayili	19	10	6
	Lanja	15	10	
Nanumba South	Wulensi	30	10	
	Nakpayili	28		6
	Lungni	27	10	
SADA Office	-	-	-	1
SEND-Ghana	-	-	-	1
Total		127	58	14

Source: Field survey, 2015

3.5 Pretest

The questionnaire was pretested in one of the six communities. This was done to identify gaps and challenges that were likely to be encountered on the field and these problems were adequately addressed by reframing some of the questions before moving on to the field.

The pretesting of the questionnaires helped the researcher to know the time required for administering each questionnaire. This helped the researcher in proper planning regarding the administration of the questionnaires.

The pretesting of the questionnaires was also to ensure the validity and reliability of the questionnaires before using them on the field. Irrelevant questions were completely scrapped off before moving on to the field.

3.6 Field Work

The researcher together with the two well-trained assistants used eight weeks in the six communities to collect data. The field work began on the first week of February 2015 and ended on the first week of April 2015.

In all the communities, the researcher and the assistants first met the assemblyman/woman in each community who took them to the team leaders of the field workers. These team leaders got two other field workers to assist in locating the other field workers. This facilitated the process.

3.7 Data Processing and Analysis

Data collected were first edited and coded. Data were finally analyzed using descriptive statistics such as frequency distribution and percentages, using SPSS version 20.0. For qualitative data analysis, content analysis technique was used. The researcher grouped (categorized) data into thematic areas based on the objectives that were to be achieved. Data were analyzed according to responses which were specific to the research (inclusive) and also responses which were not specific to the research (mutually exclusive).

Further clarification was required from respondents have a clear understanding of their responses or otherwise rejected. Specific themes were looked for from the respondents for the inclusive category. Moreover, data were analyzed according to the inclusive category

(for open-ended answers) and deductive category (for closed ended answers). The essence of content analysis technique according to Singleton *et al.*, (1993) is to analyze symbolic content of any communication for the intention of reduction of the total content of communication to some set of categories that represent the research interest. The data were presented in the form of tables, frequencies, figures, and percentages. A simple chi-square test was also used.



CHAPTER FOUR

RESULTS

4.1 Results Outline

Analysis of results was basically on the extent of local participation and as to whether their livelihood assets have been enhanced or not. Besides, the gains and losses of the local people were determined.

4.2 Background Characteristics of Respondents

The demographic characteristics of the respondents were derived from the quantitative survey questionnaires that were administered and analyzed. Sex, age, level of education, main occupation, marital status and number of children of the respondents were the variables analyzed.

4.2.1 Ages and Sex Distribution of Field Workers

The study assessed the age and sex distribution of field workers to ascertain inclusiveness and livelihood empowerment of the community members by the projects. Out of the 127 field workers in all the six communities, 125 of them were males, representing 98.4% whilst 1.6% was females. This could be attributed to the fact that, women had either few intermediaries to intervene on their behalf or were not associated with political parties to assist them to be recruited.

Table 4.1 Ages and Sex Distribution of Field Workers

Sex	Age					Total
	15-25	26-36	37-47	48-58	58+	
Male	35	51	23	9	7	125
Female	2	0	0	0	0	2
Total	37	51	23	9	7	127

Source: Field survey, 2015

4.2.2 Educational Level and Main Occupation of field workers

Table 4.2 shows the educational level and main occupation of field workers. From the table, 47 of the workers had no education and of which 46 were farmers. Also, 26 workers had primary education of which 24 were farmers whilst 17 had JHS or middle school education of which 14 of them were farmers. Moreover, 37 had secondary/technical education and out of this, 28 of the workers were farmers. From a total of 127 field workers, 112 were into farming.

4.2.3 Marital Status and Number of Children of Field Workers

Table 4.3 indicates that 75.6% of the workers were married while 19.7% were single and only one person was widowed. Also, 63 workers had three or more children.

Table 4.2 Educational Level and Main Occupation of Workers

Educational Level	Main Occupation				Total
	Business trading)	(petty	Farming	Other	
No Education	1		46	0	47
Primary	2		24	0	26
JHS/Middle	2		14	1	17
Secondary/Technical	6		28	3	37
Total	11		112	4	127

Source: Field survey, 2015

Table 4.3 Marital Status and Number of Children of Field Workers

Marital Status	Number of Children				Total
	0	1	2	3+	
Married	3	10	20	63	96
Divorced	1	2	2	0	5
Single	25	0	0	0	25
	0				
	29				127
Widowed	1	0	0	1	22

63

Source: Field survey, 2015

4.3 The Extent of Local People's Participation in the SADA Afforestation Project

4.3.1 Project Related Meetings and Information in the Communities

The study revealed that, Laanja and Dimonayili held four meetings, Wulensi, Makayili and Nakpayili held three meetings, and Lungni held two meetings. These meetings according to workers were basically made of field workers except in Laanja and Lungni where they involved local people working in similar afforestation projects such as Adventist Relief Agency (ADRA) and Alliance for Green Revolution of Africa (AGRA). According to workers, those meetings were held to choose their field leaders, indicate time of reporting and departure and also to discuss how to ensure the success of the project at the community level.

At the community level, no NGO/CSO was involved in the activities of the project. Information from SEND-Ghana indicated that, they (SEND-Ghana) together with IDEG only took part in stakeholder fora that were held in Northern Region, Upper East and Upper West Regions. They stated they were not involved at the community levels where the plantations were carried out.

4.3.2 Field Workers Assessment of Information Flow and Decision-making during the SADA Afforestation Project

In assessing the participation of local people with respect to information flow and decision-making, there were different responses from the communities. From the study, 74 field workers from the six communities believed there was only one way flow of information to the public (information sharing), 32 workers thought it was two way flow of information

between coordinators and public (consultation) whilst 21 were of the view that, it was joint decision making because they involved community members from ADRA and AGRA who were also into afforestation projects (Table 4.4).

Table 4.4 Field Workers Assessment of Information Flow and Decision-making during the SADA Afforestation Project

Communities	Type of information flow to people during meetings			Total
	one way flow of information to the public	two way flow of information between the coordinators and the public	joint decision-making	
Dimonayili	5	3	0	8
Makayili	15	3	1	19
Laanja	1	2	12	15
Nakpayili	21	6	1	28
Wulensi	17	13	0	30
Lungni	15	5	7	27
Total	74	32	21	127

(df=5, p=0.003 and $\chi^2=17.709$). $p < 0.05$

Source: Field survey, 2015

A chi-square test conducted produced the output (p=0.003) which is statistically significant.

It can therefore be deduced from the table above that, field workers perception of information flow to local people varies from community to community.

4.3.3 Recruitment of Field Workers into the Afforestation Project

Field workers were recruited from their respective communities to work on the field. Apart from the 8.7% of the workers who were recruited through a direct application made to the project, all others got their appointments through intermediaries (Figure 4.1).

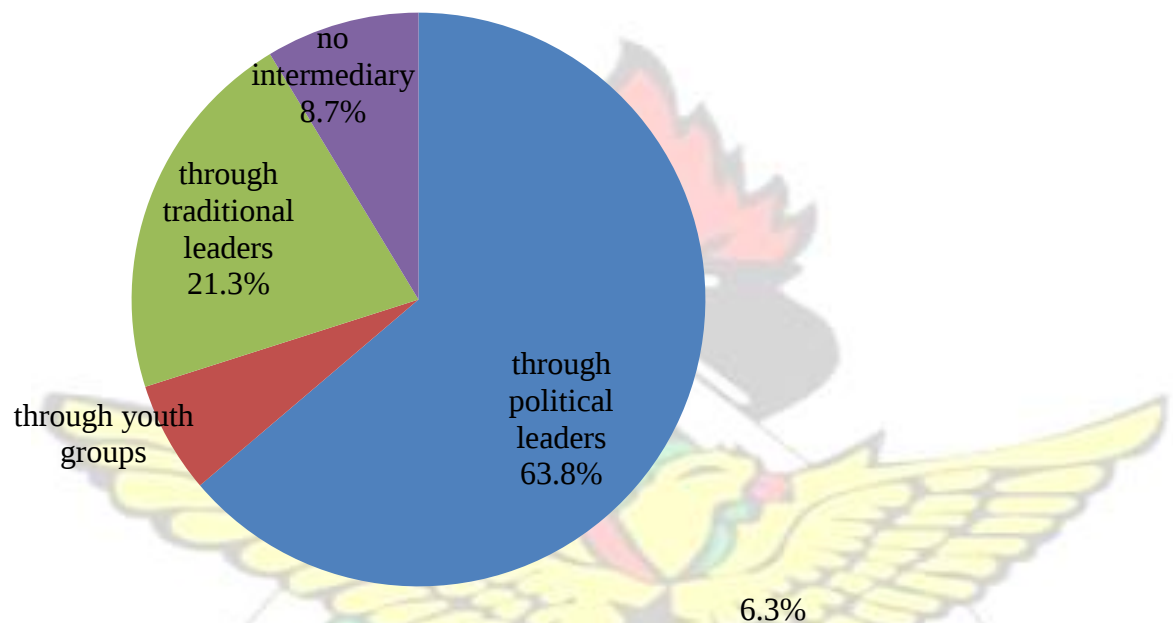


Figure 4.1 Recruitment Channels of Field Workers into the SADA Afforestation Project

Source: Field survey, 2015

4.3.4 Field Workers Involvement in Decision-making on the Project and its Implication for Choice of Species Planted

Table 4.4 is a cross tabulation of field workers involvement in decision-making on the project and its implication for choice of species planted. From the table, 74 field workers

were of the view that the selected species were not their choice. Out of the 74 field workers, 38 field workers strongly believed that there was neither consultation, engagement nor information flow and stated categorically that, the selected species were not their choice. However, 53 field workers stated the species were their choice. Out of the 53 field workers, 23 field workers stated the selected species were their choice, but it was neither through consultation, engagement nor information sharing.

A simple chi-square test showed that, the level of involvement did not affect field workers choice of species since ($p > 0.05$).

Table 4.5 Field Workers Involvement in Decision-making on the Project and Choice of Species Planted

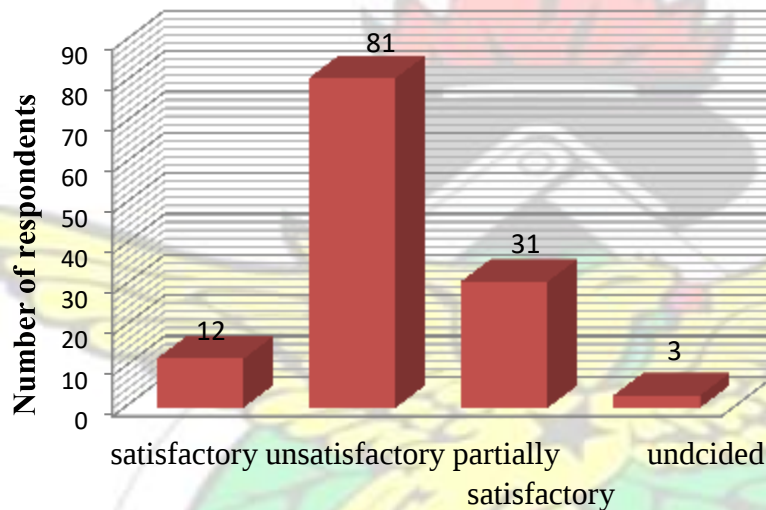
Decision to Plant Trees	Number of Field Workers		Total
	Were the selected species your choice?		
	Yes	No	
Consultation	14	22	36
Engagement	13	10	23
Information sharing	3	4	7
None	23	38	61
Total	53	74	127

(df=1, $p=0.062$ and $\chi^2= 3.472$). $p > 0.05$

Source: Field survey, 2015

4.3.5 Perceptions of Local Participation by Field Workers

Figure 4.2 illustrates the perception of field workers participation with respect to the overall effect of SADA afforestation scheme on the communities. Twelve field workers were of the view that their participation in SADA afforestation was satisfactory. However, 81 field workers saw their participation to be unsatisfactory. The remaining field workers (31) saw their participation to be partially satisfactory because they were paid some wages while three workers were undecided.



Field Workers Perceptions of Participation in the SADA reforestation scheme

Figure 4.2 Perceptions of Local Participation in the SADA Afforestation Scheme by Field Workers

Source: Field survey, 2015

4.3.6 The Extent of Local People's Participation and Species Selection

A community development project that seeks to promote sustainable development and to mitigate the effects of climate like SADA afforestation should solicit and if possible incorporate the priorities and needs of the local people. The focus group participants who were some field workers and key informants stated that, the decision to plant trees was taken before the field workers were recruited. However, to them the afforestation project was preferable to any other project since the trees have many benefits such as roofing poles, protecting their dams from drying up and also providing them with fire wood for cooking. Besides, the knowledge and skills acquired were similar to their occupation (farming) and could be transferred onto their farms.

Respondents stated that, the species planted especially teak could not be intercropped with crops and so cashew, mango and oil palm would have been preferable. The cashew and mangoes according to respondents could be eaten during lean seasons and oil palm could keep women in business.

4.4 Building on the Livelihood Assets of Beneficiary Communities

This section of the study seeks to find out how the afforestation project has enhanced the livelihood assets of the beneficiary communities. The variables used were the five livelihood assets; natural, human, social, financial and physical capital.

4.4.1 Natural Capital Enhancement

The natural/biological capital that was assessed was the afforestation project. Table 4.5 shows the species that were planted in the six communities (natural capital) and the land

sizes that were used for the plantations. Though the land sizes were small for the first year, there was the potential of SADA expanding the afforestation project in the communities or extending the afforestation project to other communities which were not captured in the first year.

From the study, 86 field workers indicated the afforestation was sited closer to a water body; a dam, river or a stream. Their reasons were that, the plantation can protect the watershed and also prevent siltation. Moreover, five of the field workers asserted the afforestation was closer to a sacred grove. They believed the trees will increase the number of trees in the community and help protect the village from adverse wind storms.

Also, 36 of the workers stated the plantation was on a hilly side and could reduce erosion. Three opinion leaders from three communities and the District Chief Executive (DCE) for Nanumba North applauded SADA for siting two of the plantations close to water bodies.

Table 4.6 Acreage and Species Planted in the Six Communities under SADA Afforestation Project

Community	Acreage (Ha)	Plant Species
Napkayili	0.47	<i>Tectona grandis</i>
Lungni	2.94	<i>Tectona grandis</i>
Laanja	3.0	<i>Tectona grandis</i>
Dimonayili	3.0	<i>Tectona grandis</i>
Makayili	4.0	<i>Tectona grandis and Albizia lebeck</i>
Wulensi	4.33	<i>Tectona grandis</i>

Source: Field survey, 2015

4.4.2 Human Capital Enhancement

The human capital improvement that the afforestation project brought was in the area of capacity building in plantation work. From the study, 100 field workers from the six communities stated they were trained in lining and pegging, planting and mulching of seedlings and how to water plants. However, 10 field workers stated they were not trained because they did not join the project at the inception whilst 17 field workers do not know whether they had acquired further skills or not since they had worked in similar afforestation projects. The knowledge and skills acquired in those afforestation projects according to respondents were not different from what they were trained in (Table 4.7).

Table 4.7 Training of field workers

Trained to work	Dimonayili	Makayili	Laanja	Napkayili	Wulensi	Lungni	Total
Yes	6	16	12	21	23	22	100
No	0	1	3	2	3	1	10
Don't know	2	2	0	5	4	4	17
Total	8	19	15	28	30	27	127

Source: Field survey, 2015

4.4.3 Social Capital Enhancement

Social capital has to do with community, family and social networks. From the perspectives of field workers, their social capital was enhanced through participation in the project. During their stay in the project, they learnt to tolerate, respect and trust one another and

therefore came out as better team players than before. Figure 4.3 illustrates what field workers achieved for being together on the field.

The research also revealed that, 67.7% of the field workers made new friends on the project site. With respect to informal groups, 74 field workers stated they had informal groups in the form of „susu“ (collecting money from all group members to give to one person in rotation at the end of every month) and also „kpatobo“ (helping group members on their farms in rotation). These informal groups as stated by field workers helped them tremendously in their livelihoods.

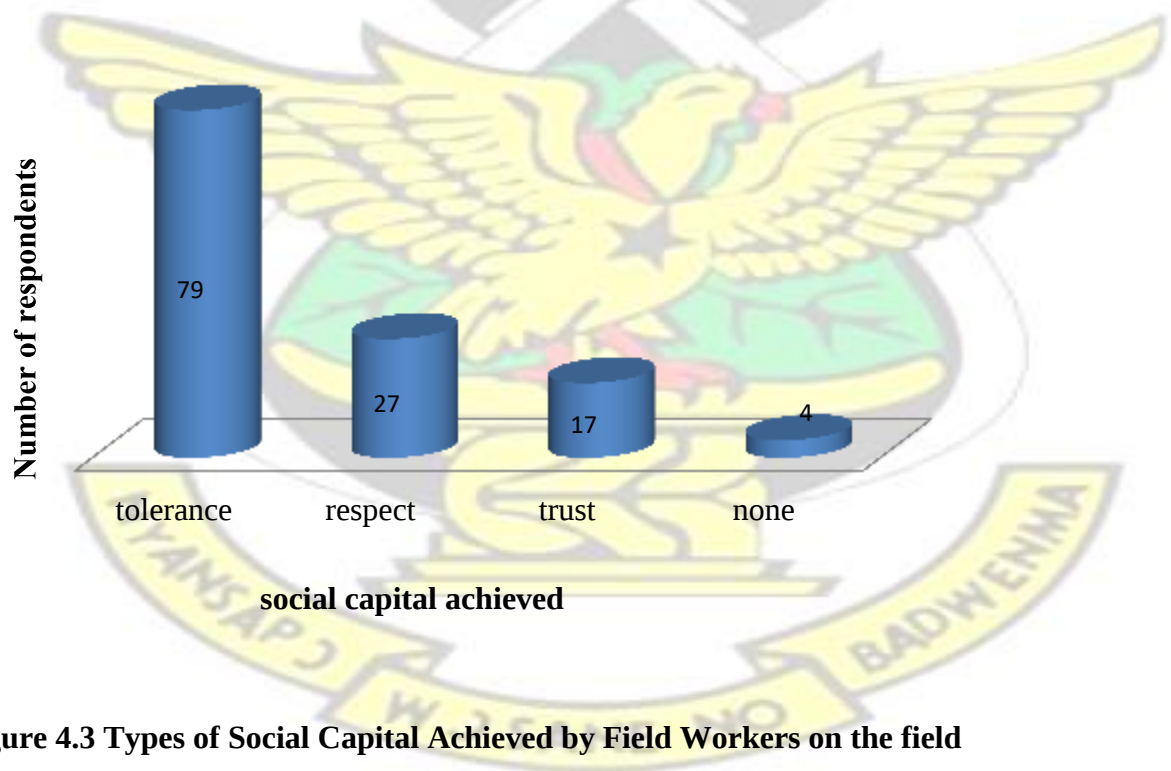
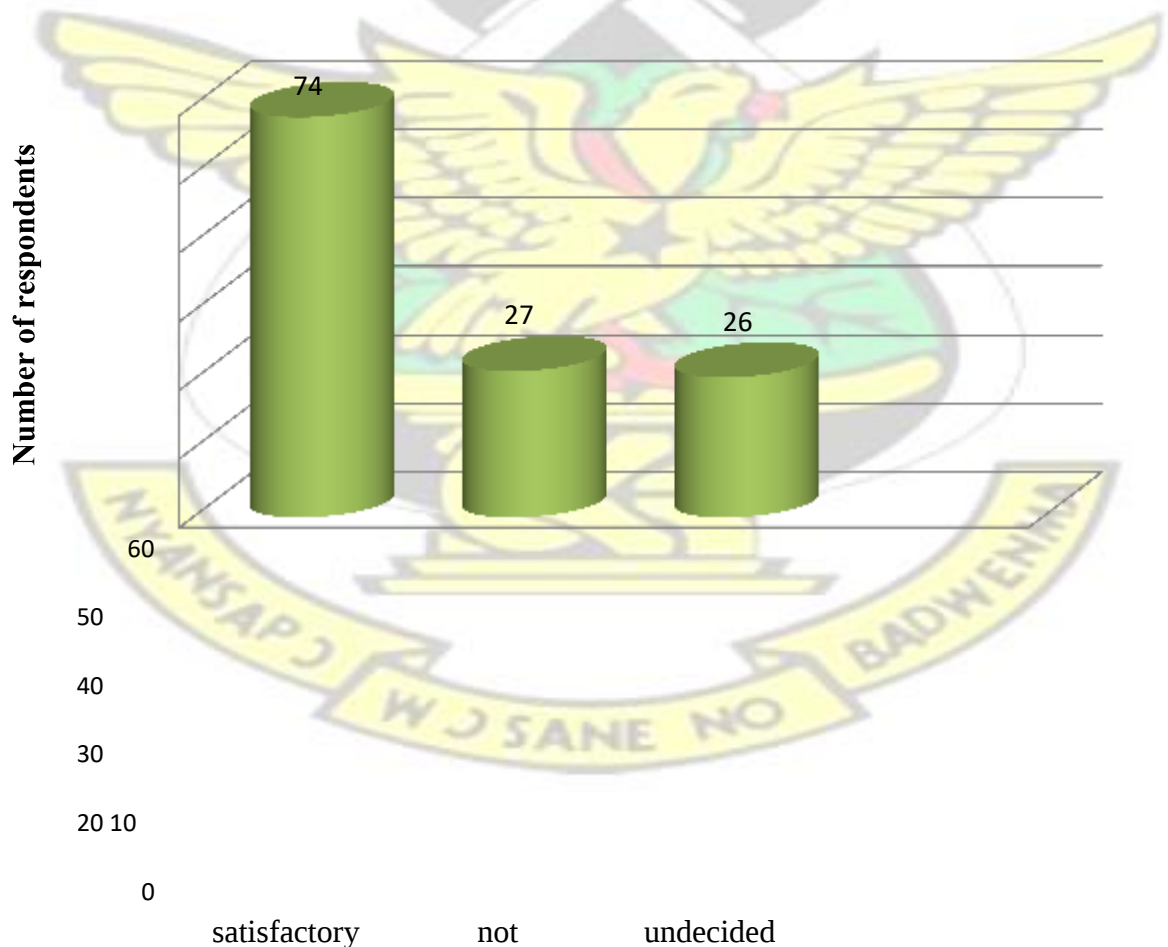


Figure 4.3 Types of Social Capital Achieved by Field Workers on the field

Source: Field survey, 2015

4.4.4 Financial capital enhancement

Salaries impacts on the livelihoods of the field workers as well as savings from their monthly salaries were focused on under financial capital enhancement. The field workers stated that, they started the project in October 2012 and were paid their first salaries in December 2012 an amount of \$135.26 (GHC 330.00) for the three months. Also, in March 2013 field workers stated they were paid \$90.16 (GHC 220.00) for two months (January and February 2013). Another \$90.16 was paid to them in July 2013 as salaries for March and April but they were asked not to work in August. Figure 4.4 illustrates field workers perceptions of the impact of the salaries on their livelihood.



satisfactory

Impact of salaries

Figure 4.4 Perceptions of Salaries' Impact on the Livelihood of Field Workers

Source: Field survey, 2015

Figure 4.5 demonstrates the level of savings by field workers on the afforestation project. It shows that, 107 field workers were able to save 21% or more of their salaries. These savings according to some of the field workers had helped them to pay school fees of their children, pay hospital bills of family members and to expand their farms. Some stated they used the savings to buy livestock for rearing.

80



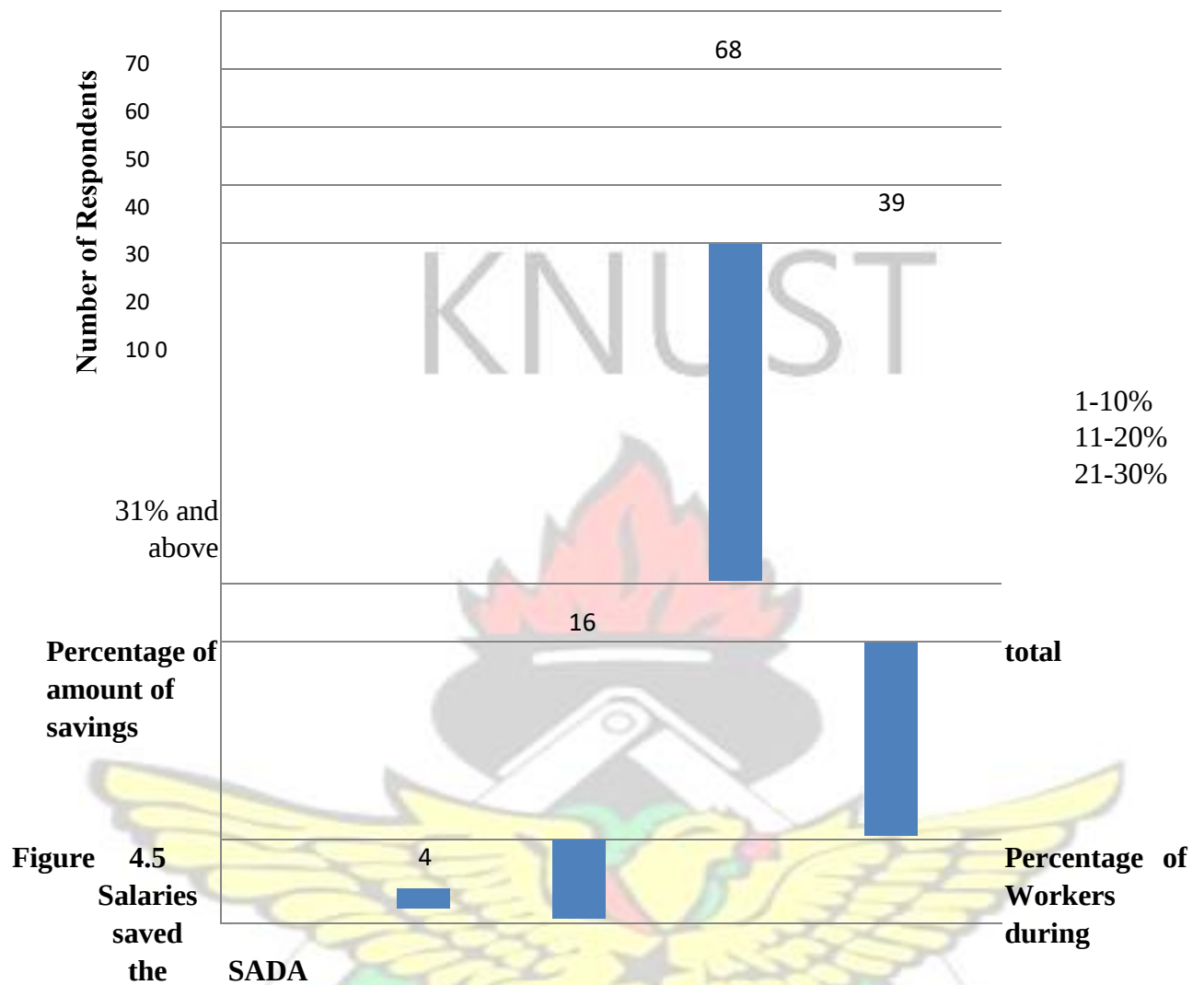


Figure 4.5
Salaries saved the SADA Afforestation Project

Source: Field survey, 2015

4.4.5 Ranking Livelihood Assets in terms of Least Enhanced to Most Highly Enhanced

The extent to which the project was able to enhance the various capital assets were ranked by participants in the following order of decreasing importance. Human capital was the most highly enhanced (Figure 4.6). The basis for ranking is provided in table 4.8.

Livelihood assets enhancement

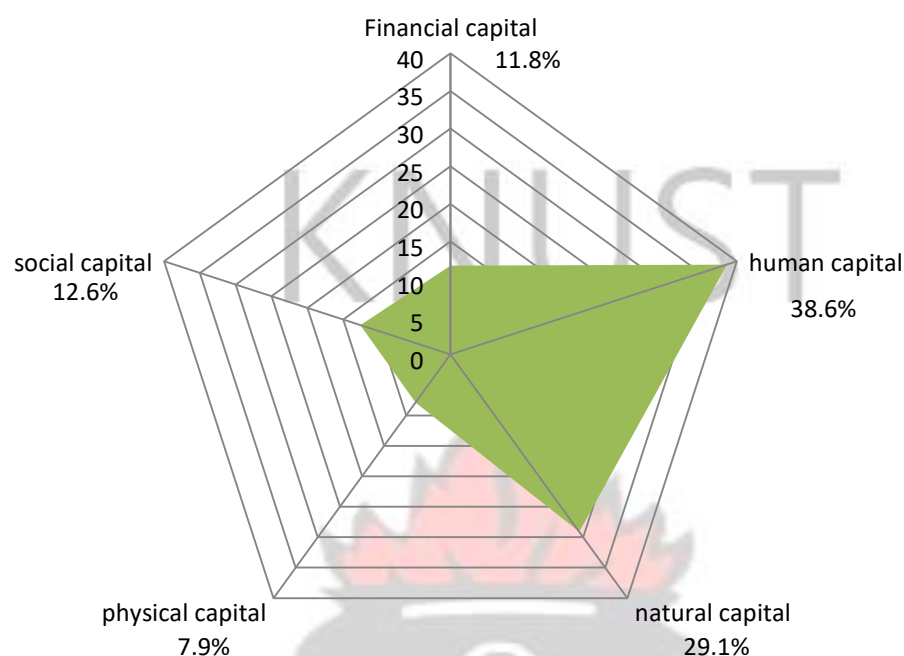


Figure 4.6 The Extent of Assets Enhancement

Source: Field survey, 2015

Table 4.8 Ranking of the livelihood assets and reasons for the ranking

Livelihood assets	Ranking	Reason
Physical	Least Enhanced (LE)	Insufficient tools and equipment to work
Financial	Enhanced (E)	Salaries were irregular and to some not at all
Social	Highly Enhanced (HE)	The project did not last long

Natural	Very Highly Enhanced (VHE)	Trees were planted and managed
Human	Most Highly Enhanced (MHE)	Knowledge and skills are transferable

Source: Field survey, 2015

4.4.6 General views of Focus Group Discussants on Livelihoods Capitals

Enhancement

Box 4.1 shows the general views raised by discussants in a focus group discussion on livelihood capitals enhancement.

Box 4.1 A Focus Group Discussion on Livelihood Capitals Enhancement

1. Respondents agreed that they acquired knowledge and skills from each other e.g. how to preserve yams for long time.
2. They agreed that the use of the lands for afforestation was beneficial to them.
3. They stated they made new friends and this promoted unity amongst different tribal groups by learning each other's language.
4. They helped each other during social functions such as wedding and naming ceremony.
5. They stated the project helped them to open accounts at the bank and learnt how to save.

Source: Field survey, 2015

4.5 Winners and Losers of Livelihood Opportunities

Developmental projects are likely to affect peoples' life either positively or negatively depending on how, when and where it is carried out. As such, some will gain or lose their livelihood opportunities. A project like the SADA afforestation project is therefore likely

to have winners and losers of livelihood opportunities. The parameters used to assess the winners and losers on the project were changes in income and casual labour availability from the perspectives of field workers and participants in FGD.

The income of field workers at the time they were on the SADA project was compared to that of the time the questionnaires were administered. Eighty-two field workers stated there was increase in their income when they were on the project, 28 of the field workers stated there was decrease in their income because they were not regularly paid whilst 17 field workers had no response due to the fact that they were not paid for the whole year as field workers (Figure 4.7).

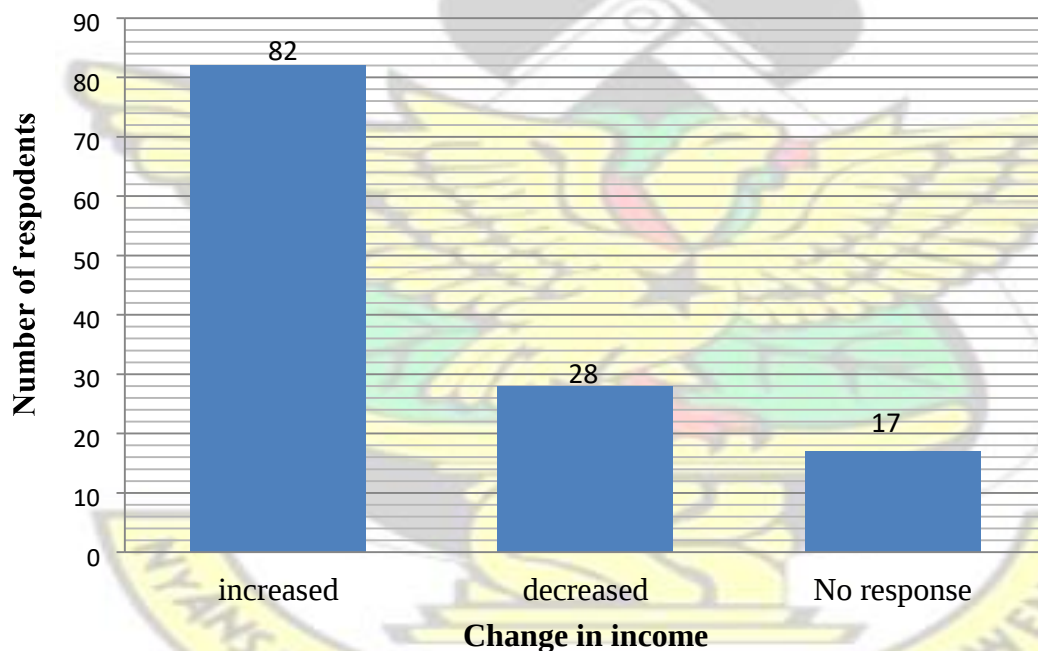


Figure 4.7: Comparing Income of Field Workers during and after the Project

Source: Field survey, 2015

Figure 4.8 illustrates field workers perceptions of the impact of the project on the access to casual labour in the community. Whilst majority of the workers (81) stated access to labour remained the same, 28 of the workers were of the opinion that, the project led to a decline in casual labour availability in the community. However, 18 field workers did not know whether

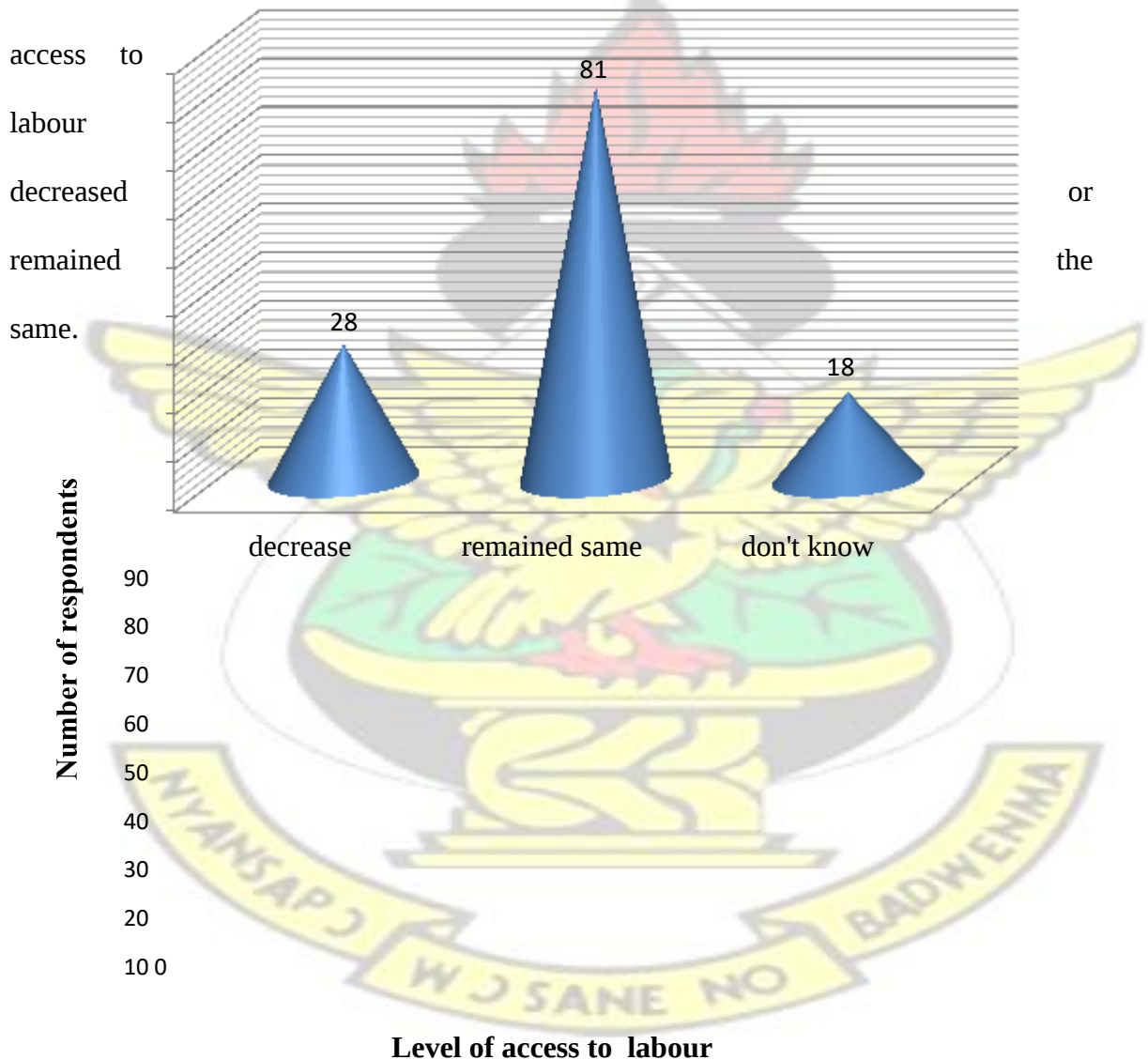


Figure 4.8 Perceived change in access to casual labour due to the presence of the SADA Afforestation Project

Source: Field survey, 2015

4.5.1 General views of Focus Group Discussions on Winners and Losers of

Livelihood Opportunities

The field workers on the focus group discussions agreed that the communities as a whole were winners because the afforestation would be beneficial to all community members. They also believed that, all workers who were recruited into the afforestation project were winners with the reason that, they were paid. Besides, the workers had social recognition in their communities as workers of SADA afforestation project.

However, they considered those whose farm lands were used for the afforestation as losers of the project because they were not compensated. Also, field workers who were not regularly paid or not paid at all were losers of their livelihood opportunities.

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CHAPTER FIVE

DISCUSSION

5.1 The Extent of Local People's Participation in the SADA Afforestation Project

Community projects such as the SADA afforestation project needs to be participatory and should encompass a broad section of stakeholders especially the local people and NGOs/CSOs. Such process can lead to empowerment of the individual and the community at large. The possibilities of attaining set goals and targets are also high.

The study revealed that, meetings that were held in the communities were made of few stakeholders specifically field workers and some opinion leaders. No NGOs/CSOs took part in the communities' meetings except community members who had worked with other NGOs/CSOs in similar afforestation projects. SEND-Ghana and IDEG only took part in stakeholder fora that were held in Tamale, Bolgatanga and Wa. After those fora, no NGO was involved at the community level. Chen *et al.*, (2012) asserted that communitybased co-management (CBCM) projects should be made of different stakeholders including community residents, NGO's and government officials. It is worthy to note that, a broad

stakeholder engagement protects the concerns, interest and priorities of the beneficiaries of a project. When stakeholders are actively involved from the designing to the implementation stage of a project, they perceive themselves as owners of the project. They are therefore motivated and committed (Lines, 2004) towards the success of the project. This was however, not realized in the SADA afforestation project from the studied communities. The DCE for Nanumba North in an interview schedule during the study emphasized that, SADA was supposed to be an inter-coordinating body with other departments including the NGOs/CSOs but there was no coordination. Such coordination would have unearthed the realities on the ground and help to address the concerns and interests of the local people. The local people were neither engaged nor consulted on the species choice. The majority (58%) of the field workers did not like the species that were planted. This affirms the observations made by Karl (2002) and Pimbert (2004) that, policies and practices developed at central level are mostly not responsive to the policy needs at local level. This makes it not conducive to local livelihood strategies. Besides, the field workers together with the opinion leaders in a focus group discussion indicated they valued cashew, mango or oil palm than the albizia and teak that were planted for them. According to Sagoff (1988), preferences and values are the two main types of interests that are often lumped together and emphasized that values but not preferences, should serve as the basis of public policy making.

For a project such as SADA afforestation project to be described as a project that takes a holistic perspective, it should focus on people but not resources, and also consider many assets. It should allow the local people to identify their own problems, analyze and design their own solutions as well. Instead, the expert authority approach (Chase *et al.*, 2000) that

was used does not lead to the empowerment of the poor who are the beneficiaries. If this expert approach is to continue in development projects, the local people will always be at a disadvantage and their situations will never change.

It was also observed that the level of information flow to local people was different among communities. Some communities particularly Laanja and Lungni consulted community members who have worked in similar afforestation projects such AGRA and ADRA to share their experiences with the field workers. Officials of SADA did not engage the local people in taking a decision. Information sharing and consultation which were predominantly used by the communities are what Burns *et al.*, (1994) described as citizen non-participation under the ladder of citizen empowerment and Arnstein (1969) described it as tokenism under his ladder of participation. These types of information flow do not lead to citizen control and power as indicated by Burns *et al.*, (1994) and Arnstein (1969) respectively.

Majority of the field workers (40%) were within the age range of 15-26 years. This is an indication that, the field workers were more of youthful age than old age. Key informants from the assemblies revealed that, the project was a strategy specifically to address youth unemployment in the communities. This conforms to Chen *et al.*, (2012) who emphasized that the need to strengthen community participation through a more sensitive project design and clear attention as to who is participating and who is being left out. Such an approach to design will lead to both enhanced natural resources conservation and increased livelihoods for all.

In terms of gender, only 1.6% of the workers were women. The labour force proportion of men recruited was more than women. This agrees with the observation made by Sialao (2003) of the Samoa economy that, for a whole labour force a higher proportion of women were unemployed than men. Fontana and Paciello (2010) also observed that, many farmers' organizations are dominated by men whilst women are under-represented or not represented at all. Buvinic (1989) has emphasized the need for expanding the income and employment of women since it can empower them socially and economically and this can promote gender equity.

A key informant from one of the district assemblies indicated that, the work was assumed by the women to be menial and so women were not interested. An opinion leader from the community however stated that, the recruitment process was not transparent. He further stated that, women are not into active politics and most of the workers were recruited through political affiliation. It was also revealed that, most of the field workers with the exception of 8.7% were recruited through intermediaries. An interaction with a former official from the SADA afforestation indicated that, political leaders, traditional and opinion leaders, and youth groups were all to provide people for recruitment into the project. It was revealed from the study that, politicians at the local or community level manipulated the recruitment process. This agrees with the assertion by Mansuri and Rao (2004) that, participatory exercises at the community level are often and easily manipulated by politicians. We should however be cautious in the selection of participants as stated by Smith (2005) cited in Belisa (2010). It is important that a recruitment exercise such as the SADA afforestation project should have been based on merit devoid of intermediaries. Mansuri and Rao (2004) stated that, participatory exercises are often manipulated at the

community levels by politicians because of their powers and authority. Future afforestation projects should be based on merit devoid of power play and influence. This will aid the marginalized people to have equal opportunities as any other person and lend credence to transparency required in good governance.

An officer of the SADA afforestation indicated that, per the objectives of the project, women peasant farmers were to have more access to economic trees but in reality was different. This agrees with the observation made by Karl (2002) that, in local populations the poor and the marginalized groups have very weak and indirect influence on policy frameworks that impact on their livelihoods. For the afforestation project to be considered inclusive then it should have an appreciable number of various categories of people.

Field workers had varying perceptions based on their own assesment regarding their participation in the SADA afforestation scheme. From the study, most of the field workers (64%) saw their level of participation to be unsatisfactory. Their reason was that, the SADA officials were unaware of their concerns and interests. This approach is what Wells *et al.*, (1992) described as the beneficiary approach and that it does not make local people active participants and independent on their own. Pretty (1995), sees this as a means to achieve specific goals such as building a better management structure but not to empower local people. The disorderliness in most of their activities which were supposed to be routine-based could be attributed to the minimal or no participation of the local people. It is imperative to incorporate the views and concerns of local people in developmental projects rather than considering them as only beneficiaries.

Majority of the field workers (37%) had no education. This shows that in this project, education was not a barrier to employment. SERA (2006) however stated that, skills composition is a major factor in explaining regional variations in productivity, and will depend on local education/training provision and traditions. Field workers who had secondary/technical education were 29%. It also means that it had the capacity to employ a wider range of people. For those workers with technical/secondary education, this may be transitional job but it may provide them with practical experience, knowledge and skills for permanent jobs in the future. SERA (2006) further emphasized that, higher skilled workers and graduates often move to larger, more prosperous urban areas, so there is always a risk of losing them from rural regions.

The majority, 88.2% of the field workers from the communities were into farming as the main source of livelihood. The main factor affecting agricultural productivity is the relatively low price for agricultural products (Schoeffel, 1996). This may explain why these farmers found it more economically rewarding to join the afforestation project as full time workers. Those that were into different occupations also saw it prudent to be part of the afforestation project. It is an indication that, in the rural settings, the livelihoods of the people are not only dependent on one source but rather numerous sources (Carney, 1998; DFID, 2002).

5.2 Building on Livelihood Assets of Beneficiary Communities

The five livelihood assets were assessed to ascertain their levels of enhancement with respect to the afforestation project. Field workers and the communities of the afforestation

project were assessed based on the level of enhancement as individuals and the communities at large.

5.2.1 Natural Capital

Natural stocks like the SADA afforestation are important natural assets to rural communities. Though the sizes of the plantations were too small for the communities as compared to the number of field workers on the sites, they could serve as sources of fuel wood. Community forestry according to Kings (2004), is generally small scale, and may encompass community management of water catchment areas, sustainable logging of indigenous species on communal land, community plantations or individual farmer woodlots. Besides, majority (71.7%) of the workers were of the opinion that the afforestation would enhance the local environment by preventing soil erosion, siltation of water bodies and serve as watershed. This agrees with the findings of Pimbert (2004) that environmental degradation and the destruction of wildlife and fisheries are serious problems that require immediate intervention to prevent further deterioration. In affirming these responses, 74% of the respondents strongly stated that, the use of the land for afforestation was beneficial to them. Three opinion leaders from three communities and the District Chief Executive (DCE) for Nanumba North applauded SADA for siting two of the plantations close to water bodies. This was attributed to the fact that, one of the objectives of the SADA afforestation was to ensure mitigation to climate change by reducing the frequent occurrence of floods and droughts in Northern Ghana (SADA Strategy and Work Plan, 2010).

Per the plans of the SADA afforestation project, each field worker was expected to manage not less than 510 trees on each site. In reality however, that target had not been achieved as at the time of the study. It was the intention from the perspective of SADA to sustain the project and that could mean either increasing the sizes of the plantation or to increase the number of beneficiary communities from each district. There is the potential of greater natural capital enhancement if the SADA afforestation project should be sustained. Maximum participation of local people will lead to the transformation of the livelihood capitals of the locals. According to Adatoet *al.*, (2006) improvement, enhancement and up gradating of the assets can broadly indicate the promotion of sustainable livelihoods.

5.2.2 Human Capital

Human capital inter-relates well with the other capitals. Human capital is vital to be able to make good use of the other capitals. Education (knowledge and skills), labour, health and nutrition constitute human capital. The majority (69%) of the field workers from the six communities believed they were trained whilst others stated they were not trained because, they joined the project late or simply because they had worked in similar afforestation projects. Those who were trained stated that, they had transferred the knowledge and skills learnt to plant and nurture trees on their farms, grow and raise yam mounds in alignment and this has made their activities especially harvesting easier. Responses from the field workers is in conformity with Carnea (1985) who stated that, local participation is about empowering people to develop and utilize their own capacities such that they can be actors rather than subjects and can control the projects that affect their lives. Besides, Islam & Sato (2012a) and Chen *et al.* (2013) observed that, training contributed significantly to improve participants' capacity building towards human asset development.

5.2.3 Social Capital

Social capital comprises social networks, tolerance, relationships of trust and respect.

Nanumba-North and South Districts are some of the hotspots in terms of violence in Northern Ghana. SADA afforestation has the potential of brokering peace and uniting opposing factions together as one people irrespective of ethnicity, religion and chieftaincy.

The afforestation had the potential of creating better networks amongst the field workers and the communities at large. Field workers saw themselves as one people belonging to SADA afforestation project and with a common goal of ensuring the success of the project.

From the study, 79 of field workers stated tolerance as the social capital that was greatly achieved. As a group, they listened and accepted the opinions of others to ensure the success of the project. Other social capitals such as trust and respect were stated to have been achieved by field workers. Field workers trusted and respected each other and therefore some formed „susu“ groups (collecting money from all group members to give to one person in rotation at the end of every month). Besides, 67.7% of the field workers made new friends on the project site. These new friends according to the field workers sometimes lend them monies whenever they were in need. The revelations from the field workers demonstrate the need for one to belong to a group due to the benefits attached as being a member. With respect to informal groups, 74 respondents believed they had informal groups in the form of „susu“ (collecting money from all group members to give to one person in rotation at the end of every month) and also „kpatobo“ (helping group members on their farms in rotation). Social capital is acknowledged as an essential asset for enhancing individuals' participation in community programmes (Coulibaly-Lingani *et al.*, 2011).

5.2.4 Financial Capital

Savings from an income as well as the income of the individual and sometimes remittances depict his/her financial assets. Numerous people place premium on their income and this makes them have different coping strategies to make a living. A greater number of the field workers (58%) were of the view that the salaries had satisfactory impact on their livelihood. They stated they could meet most of their needs through the salaries from the afforestation project which hitherto they could not. This confirms the assertions by Fometer and Vermaak (2001) that forest products can contribute positively to the improvement of rural livelihoods. It can be inferred that, the termination of the SADA afforestation project is having serious repercussions on the livelihoods of majority of the field workers.

Field workers were paid GHC 110.00 per month and they made some savings from the salaries. Few workers were saving 1-10% of their salaries. However, majority of the workers (68) were saving 21% or more of their salaries and 39 workers were saving more than 30% of their salaries. These savings according to the respondents were diversified into other ventures such as livestock rearing whilst others used the savings in expanding their farms, paying school fees and hospital bills. This finding agrees with Islam and Sato (2012) and Islam *et al.*, (2013) have also observed that, forest resources and its management play a vital role in rural development especially in poverty alleviation strategies.

More than half of the workers (75.6%) were married. Besides, 49.6% of the workers who were married had 3 or more children. It can be deduced that, the wages that were paid to the workers though perceived to be meager by some cross section of workers, had a

trickling down effect on a lot of people. These wages helped not only the workers on the project but other family members. A lot of workers stated of using their salaries to pay school fees and hospital bills of family members. Others used their salaries to expand their farms to produce more in order to feed their families.

5.2.5 Physical capital

Workers stated their physical capital was the least enhanced whilst their most highly enhanced capital was human capital. This confirms the findings of Bebbington (1999) that, the use of livelihood assets by people is relative in terms of context and social group. Carter and Barret (2006) are of the opinion that, besides income, assets play an important role in alleviating households' poverty.

Regarding the physical capital, respondents stated that, apart from watering cans and tricycles that were provided by SADA afforestation of which they did not have, they possessed the other tools and equipment (Wellington boots, hoes and cutlasses) before the inception of the project. A lot of reasons were given by respondents in a focus group discussion as to why their livelihood assets/capitals were enhanced (Box 4.1). Baumann (2002) is of the view that, increasing livelihood assets is the main strategy for enhancing people's livelihood outcomes as people depend on a vast range of capitals to attain positive outcomes.

5.3 Winners and Losers of Livelihood Opportunities

The opinion leaders and field workers in a focus group discussion agreed that the communities as a whole were winners because their natural capital was enhanced. As

opined by Adatoet *al.* (2006), that effective poverty alleviation is premised upon the available assets that households can access. Field workers stated that they had transferred and taught others how to apply the knowledge and skills acquired from the project in their farming activities.

The majority of the field workers stated there was an increase in their income when they were on the project. Most of the field workers who were farmers indicated that, apart from farming they did not have any other source of generating income and that the project had diversified their livelihood strategies. The cash flow to the workers made them to be winners. Also, family members who were dependents on the workers also gained through the cash flow that trickled down to them. Buvinic (1989) made a similar observation that, the employment of women leads to their income expansion and this can empower them socially, economically and also promotes gender equity.

The presence of the project did not appear to offset labour in the community and therefore farmers did not loose access to labour. Sixty-four percent of the field workers stated access to labour remained the same. Their argument was that, it was few of them who were recruited as field workers and that could not have a serious impact of access to casual labour in the communities.

However, those community members who lost their farm lands as a result of the afforestation project were losers. These people according to other community members were not compensated for the use of their farming lands for the afforestation project. The main occupation of most rural folks is farming unlike urban folks who have different livelihood strategies. Self-employment, business creation and innovation are well lined up

in urban areas since they capture certain economic phenomenon such as genuine entrepreneurship (Faggio and Silva, 2012) . Besides, the benefits from the afforestation will take some time to materialize unlike crop cultivation.

Other losers of their livelihood opportunities were field workers who were not regularly paid and those who were not paid at all. These field workers could not go elsewhere to look for income since attendance was mandatory. Schoeffel (1996) cited low labour input and productivity as the constraints to development initiatives in the primary sectors. These workers joined the project late. They were told that their account numbers had problems and that it would soon be rectified but it never happened. It is worrisome that people with dependents could use their energy for the whole year into unproductive venture.



CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The research was carried out based on three objectives. The conclusions from the objectives are stated below.

6.1.1 The Extent of Local Participation in the SADA Afforestation Project

The research revealed that, local people were only recruited to work on the fields. It was also noticed from the study that, the recruitment of women in SADA afforestation project was low. Civil Society Organizations and Non-Governmental Organizations who play advocacy roles for the marginalized and vulnerable in society were not involved at the community levels. It implies that the local people had no power to effect a change and nobody to influence decision-making on their behalf, therefore, making their participation minimal.

The species planted were not the choice of the beneficiary communities. This could be attributed to the minimal participation of the local people. If local people's participation was high, their interests, priorities and concerns would have been sought for and incorporated in the species selection. The local people would have chosen species that they value and prefer. Heller (2003) emphasized that people should be engaged in discussions to affect the themes that will affect their lives and learn the skills for analyzing situations.

6.1.2 Building on Livelihood Assets of Beneficiary Communities

Although the project lasted for a year, the livelihood assets of the local people particularly the field workers, were to some extent enhanced. The study indicated that, the human capital was the most highly enhanced assets. It is an indication that, the potentials of the other livelihood assets to be improved upon was extremely high. This is due to the fact that, human capital has an impact on the other livelihood assets and can be used to attain several other livelihood capitals. This study therefore lends credence to the sustainable livelihood framework as a useful tool for analyzing project impact.

6.1.3 Winners and Losers of Livelihood Opportunities

The enhancement in the livelihood capitals of beneficiaries from the study had led to more positive livelihood opportunities than otherwise. From the study field workers and the beneficiary communities were perceived as winners of livelihood opportunities. However, farmers whose lands were used for the afforestation as well as field workers who were not paid were considered as losers of livelihood opportunities.

6.2 Recommendations

In order to ensure that there is inclusiveness and livelihood empowerment in community forestry projects such as SADA afforestation, the following recommendations should be looked at.

Firstly, the local people should not only be made as labourers but be fully involved in all aspects of the project. They should be consulted, engaged and partnered from the designing stage to monitoring and evaluation. Women and NGOs/CSOs should be

involved in all aspects of developmental projects.

Furthermore, capacity building should be the focus of enhancing livelihood assets. More training should be provided for the local people for them to acquire adequate knowledge and skills such that they can be independent on their own. The knowledge and skills should periodically be monitored and evaluated to ensure that they can lead to the attainment of the other livelihood capitals.

Finally, field workers and the beneficiary communities should be assisted to identify more positive livelihood opportunities to become winners. However, farmers who have lost their lands for farming should be compensated so that there will be a win-win situation for all community members.

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APPENDICES

APPENDIX 1: A QUESTIONNAIRE FOR FIELD WORKERS

QUESTIONNAIRE ON INCLUSIVENESS AND LIVELIHOOD

EMPOWERMENT IN COMMUNITY FORESTRY PROJECTS: THE CASE OF

SADA AFFORESTATION PROJECT IN NORTHERN GHANA

Name of interviewer..... Date.....

Questionnaire code..... Village name.....

This questionnaire is part of a research which will be conducted by the researcher as a student at Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; Department of Forest and Silviculture Management in partially fulfillment of the award of Master of Philosophy Degree in Natural Resources and Environmental Governance. The research is solely for academic purpose. For confidential and ethical reasons, your name will not be written on the form and be assured of your anonymity.

Please tick or write responses where necessary

SECTION A : Bio-data of the Respondents

1. Sex a) Male ☐ b) Female ☐
2. Age a) 15-25 ☐ b) 26-36 ☐ c) 37-47 ☐ d) 48-58 ☐ e) 58+ ☐
3. Level of Education a) No education ☐ b) Primary ☐ c) JHS/Middle ☐ d) Sec/Tech ☐ e) Tertiary ☐
4. Occupation (s) a) Business ☐ b) Teaching ☐ c) Farming ☐
d) Other (specify).....
5. Marital status a) Married ☐ b) Divorced ☐ c) Single ☐ d) Widowed ☐
6. How many children do you have? a) 0 ☐ b) 1 ☐ c) 2 ☐ d) 3 + ☐

SECTION B: The level of participation on the SADA afforestation project

7. Give a brief description of your involvement in the SADA afforestation project.....
.....
.....
8. How many meeting(s) were held in your community before the implementation of the SADA afforestation project? a) None ☐ b) 1 ☐ c) 2 ☐ d) 3 + ☐
9. Which groups of people were selected for the meeting(s)?
.....
.....
.....
10. What was the extent of local people's involvement during the meetings on SADA afforestation project? a) Low ☐ b) medium ☐ c) high ☐ d) very high ☐
11. Were you involved in those meeting(s)? a) Yes ☐ b) No ☐ c) I can't remember ☐
12. If you were, what was your role?
.....
.....
13. If you were not, who acted on your behalf and why did s/he do that for you?.....
.....

14. What will you say with respect to your concerns and interests incorporation in the reports of the meeting(s)? a) Accepted ☐ b) Unaccepted ☐ c) I don't know ☐
15. How long did the meeting(s) take?
- a) Less than an hour ☐ b) One hour ☐ c) Two hours ☐ d) Three and more hours
16. Which of these best describes the participation of the local people in the meeting (s)?
- a) One-way flow of information to the public ☐ b) Two-way of information between coordinators and the public ☐ c) Joint decision-making ☐ d) Transfer of control over decision-making process ☐
17. Were there civil society organizations and Non-governmental organizations in the decision-making process? a) Yes ☐ b) No ☐ c) I don't know ☐
18. If yes, what were their levels of participation?
- a) Low ☐ b) Medium ☐ c) High ☐ d) Very high ☐
19. Was there equal representation of both men and women in all aspects of the meetings that were held? a) Yes ☐ b) No ☐ c) I don't know ☐
20. What is your reason for the choice in Q19?.....
.....
21. How was the decision to plant trees in your community arrived at? a) consultation ☐ b) engagement ☐ c) information sharing ☐ d) I don't know ☐
22. Could you have chosen something different from the afforestation project?
- a) Yes ☐ b) No ☐ c) I don't know ☐
23. What is your reason for the choice for Q23?

.....
.....
24. Which people selected the species for planting?

a) The local people ☐ b) SADA officials ☐ c) Forestry commission ☐ d) others
(specify).....

25. Were the selected species your choice? a) Yes ☐ b) No ☐ c) I don't know ☐

26. If no, which species would you have chosen and why?
.....

27. What is your assessment of the SADA reforestation project?

a) Satisfactory ☐ b) Unsatisfactory ☐ c) Partially satisfactory ☐ d) Undecided ☐

SECTION C : Building on the livelihood assets of the beneficiary communities

Natural capital

28. Who owns the land that was acquired for the afforestation project?

a) The community ☐ b) A particular family ☐ c) An Individual ☐ d) I don't know ☐

29. Where was the afforestation project carried out? a) Around a dam ☐ b) Closer to a
sacred grove ☐ c) On a flat land ☐ d) On a hilly side ☐

30. Why the choice for Q37?
.....
.....

31. Have the used of the land for the SADA afforestation project been beneficial to your community?

a) Yes ☐ b) No ☐ c) I don't know ☐

32. What is your reason for your choice for Q39?

.....

.....

.....

33. What was the size of your community afforestation project?.....

Human capital

34. Were you given training as to how to work on the project sites?

a) Yes ☐ b) No ☐ c) I don't know ☐

35. If yes, which areas were you given training on?

.....

.....

36. Did you learn new skills and knowledge from each other and also from working on the field? a)Yes ☐ b) No ☐ c) I don't know ☐

37. What is/are your reason(s) for the choice for Q35?

.....

.....

38. How have you used the knowledge and skills learnt on the project and on your own?

.....

.....

39. Were there some limitations to your knowledge and skills transfer?

- a) Yes ☐ b) No ☐ c) I don't know ☐

40. Give reason(s) for your choice for Q44.

.....

.....

41. What provisions were made to ensure that you were working in safety conditions?

.....

.....

Social capital

42. How were you working on the afforestation project site?

- a) As a group ☐ b) As an individual ☐ c) In pairs ☐ d) I don't know ☐

43. Which of these did you achieve greatly as field worker on the afforestation project ?

- a) tolerance ☐ b) respect ☐ c) trust ☐ d) none ☐

44. Were there informal groups within you the workers on the afforestation project?

- a) Yes ☐ b) No ☐ c) I don't know ☐

45. If yes, what were they and what were their importance?

.....

.....

46. Did you make new friends from the project? a) Yes ☐ b) No ☐ c) I don't know ☐

47. If yes, how has this helped you in your livelihoods?

.....
.....

Financial capital

48. How much did you receive for working on the project?

.....

49. What was its impact on your income or livelihood?

a) Satisfactory ☐ b) Not satisfactory ☐ c) Partially satisfactory ☐ d) Undecided ☐

50. Did you have any transaction with any financial institution?

a) Yes ☐ b) No ☐ c) I don't know ☐

51. If yes, which institutions?

.....

52. What was the percentage of your savings from the amount that you were paid?

a) 1-10% ☐ b) 11-20% ☐ c) 21-30% ☐ d) 31% and above ☐

53. Did the savings change your economic life? a) Yes ☐ b) No ☐ c) I don't know ☐

54. Give reason(s) to your choice for Q54?

.....

.....

55. Using the table below, rank the five livelihood assets from the least enhanced to most highly enhanced and give reasons

Livelihood Assets	Ranking	Reason
Natural capital		
Physical capital		
Human capital		
Financial capital		
Social capital		

N/B Ranking descriptions: Least Enhanced (LE), Enhanced (E), Highly Enhanced (HE), Very Highly Enhanced (VHE) and Most Highly Enhanced (MHE)

SECTION D :Winners and losers of livelihood opportunities

56. What was the state of your income when the SADA afforestation project was in existence as compare to now when you no longer in the project?

a) Increased ☐ b) Decreased ☐ c) No response

57. Explain your reason for your choice for Q55

.....

.....

58. How did SADA affect the level of access to casual labour in your community?

a) Decreased ☐ b) Remained same ☐ c) Don't know ☐

59. Give a reason for your choice for Q57

.....
.....

APPENDIX 2

INTERVIEW DISCUSSION GUIDE FOR DCE, MANAGING DIRECTOR OF SADA AND MANAGING DIRECTOR OF SEND-GHANA

TOPIC: INCLUSIVENESS AND LIVELIHOOD EMPOWERMENT OF COMMUNITY FORESTRY PROJECTS: THE CASE OF SADA AFFORESTATION PROJECT IN NORTHERN GHANA

1.0 Bio-data of respondents

1. Sex
2. Educational level
3. Main occupation
4. Marital status
5. How old are you?

2.0 The level of participation of the local people

6. How many meeting(s) were held in your community before the implementation of the SADA afforestation project?
7. Which groups of people were selected for the meeting(s)?
8. What was the basis for the selection of those people?

9. What was the extent of local people's involvement during the meetings on SADA afforestation project?
10. Which civil society organizations and Non-governmental organizations in your communities were involved to take a decision regarding the project?
11. Was there equal representation of both men and women in all aspects of the meetings that were held?
12. How was the decision to plant trees in your community arrived at?
13. Which people selected the species for planting?
14. Give a brief description of your involvement in the SADA afforestation project.

2.0 Building on the livelihood capitals of beneficiary communities

15. Who owns the land that was acquired for the afforestation project?
16. Where the afforestation projects were carried out at the various communities do you see those places to be appropriate for the projects and why?
17. What train was organized for the field workers to work at the various sites?
18. What new skills and knowledge were supposed to be learnt by the field workers?
19. What provisions were made to ensure that the field workers were working in safety conditions?
20. How were the field workers working on the afforestation project site?
21. What was the relationship between those who were workers on the afforestation project and the community members who were not working on the project?
22. What was the impact of the salaries that were paid to the field workers with respect to their income or livelihood?
23. What tools and equipment were provided to the workers to work on the field?

24. How often were the tools and equipment replaced and repaired when they were worn-out?

25. Was there a nursery established in the communities to raise seedlings for the site?

26. How was the field workers conveyed to the field?

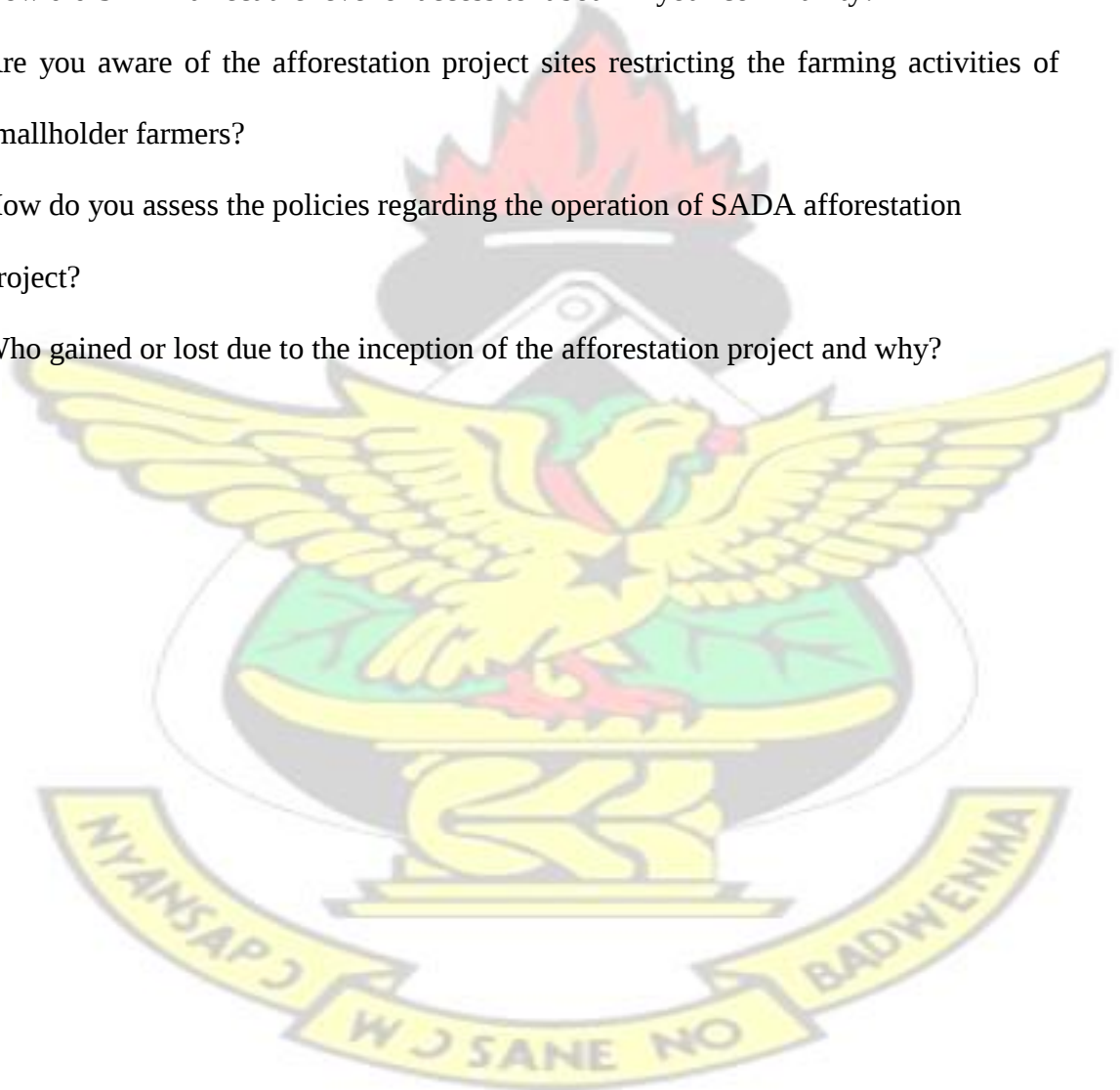
Winners and losers of livelihood outcomes

27. How did SADA affect the level of access to labour in your community?

28. Are you aware of the afforestation project sites restricting the farming activities of smallholder farmers?

29. How do you assess the policies regarding the operation of SADA afforestation project?

30. Who gained or lost due to the inception of the afforestation project and why?



APPENDIX 3

FOCUS-GROUP DISCUSSING GUIDE FOR FIELD WORKERS ON THE SADA AFFORESTATION PROJECT

TOPIC: INCLUSIVENESS AND LIVELIHOOD EMPOWERMENT OF COMMUNITY FORESTRY PROJECTS: THE CASE OF SADA AFFORESTATION PROJECT IN NORTHERN GHANA.

1. The level of local participation on the SADA afforestation project

Probe (local peoples' involvement in the afforestation project, in meetings and the extent of their involvement in those meetings, type of participation of the local people, decision plant, what to plant and why?)

2. Building on the livelihood asset of the beneficiary communities

Probe (the relevance of the project in enhancing the natural, human, social, financial and physical capitals of the local people)

3. Winners and losers of livelihood outcomes

Probe (how the project had impacted on local people positively or negatively and why?)

APPENDIX 4: CHI-SQUARE RESULTS

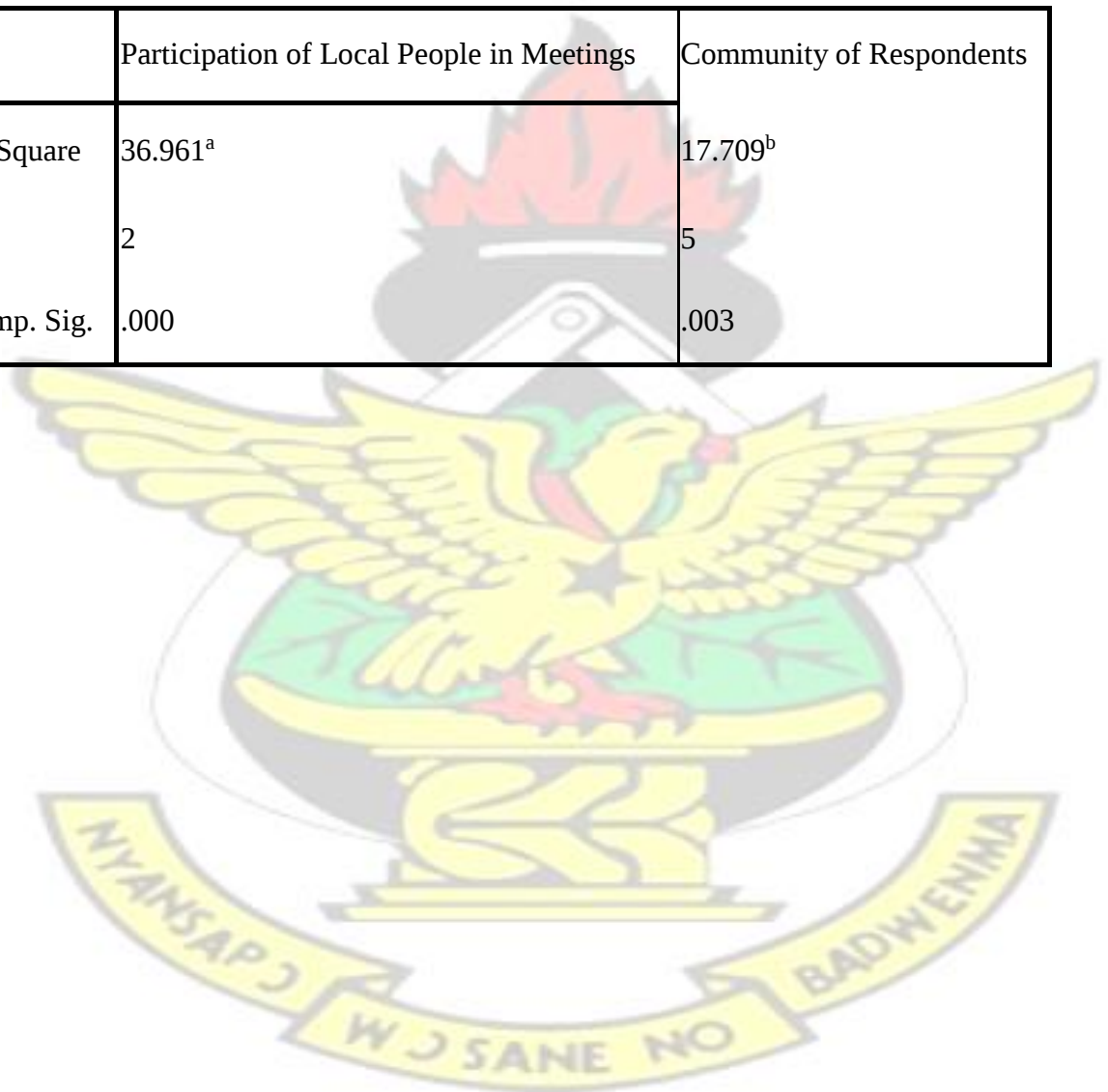
Test Statistics

	Decision to Plant Trees	Species Selection
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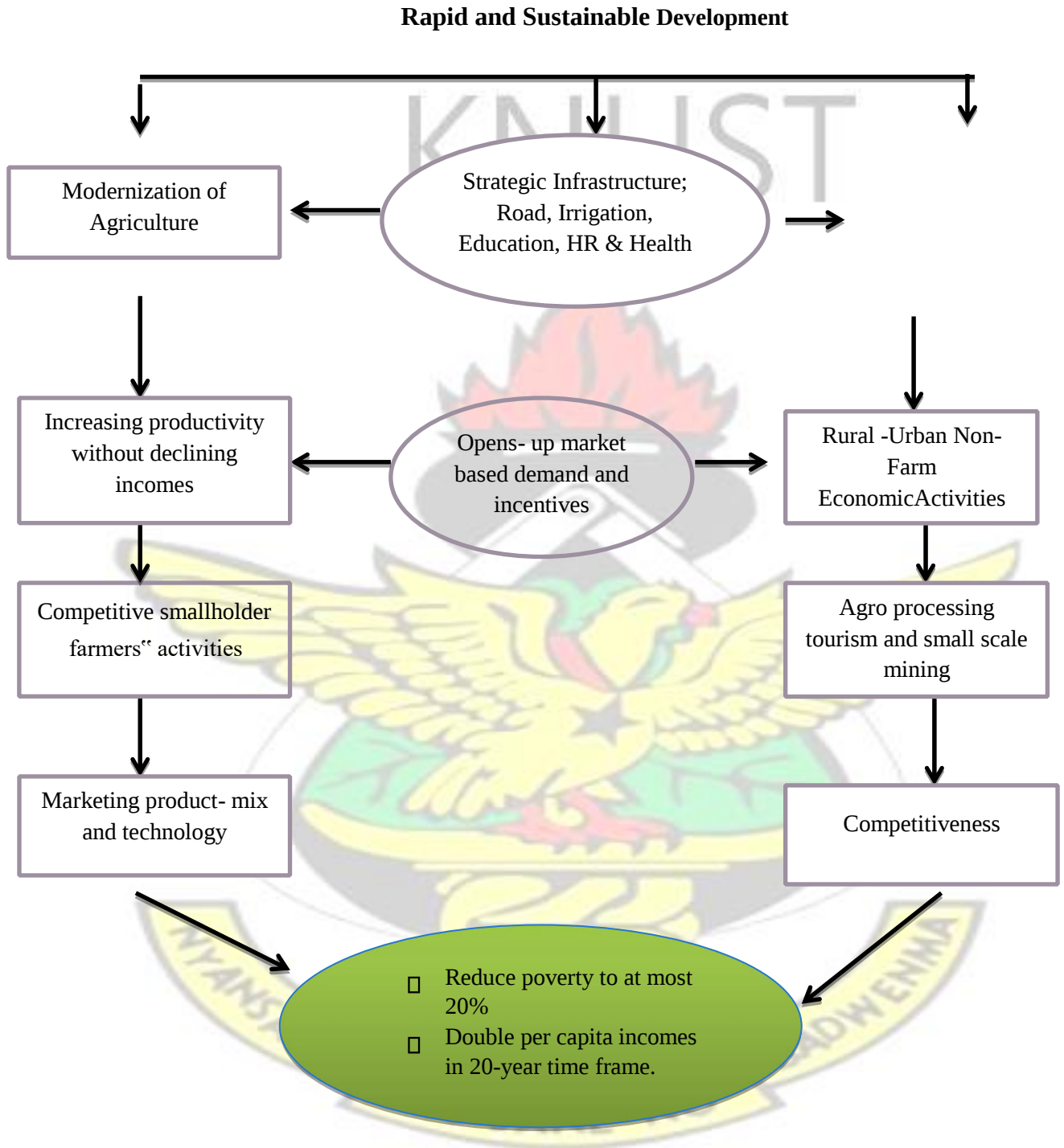
Chi-Square	49.220 ^a	3.472 ^b
Df	3	1
Asymp. Sig.	.000	.062

Test Statistics

	Participation of Local People in Meetings	Community of Respondents
Chi-Square	36.961 ^a	17.709 ^b
Df	2	5
Asymp. Sig.	.000	.003



APPENDIX 5: SADA CONCEPTUAL FRAMEWORK



Source: Adopted from (SADA Strategy and Work plan, 2010-2030)

Northern Savannah Afforestation Project.

0000915

STAFF DATA FORM

Region: NORTHERN

Metropolitan / Municipal / District: NANUVIBA NORTH

PERSONAL INFORMATION

Name (Please fill in block letters and leave one space between words)

ME

Mr. Ms. Mrs. Other

FUSHEINI ISSAH

(Surname, First Name, Other name)

Date of Birth: 17 09 76

Day Month Year

(Please produce proof of age in case of need)

Gender: Male ☒ Female ☐

Place & Country of Birth: LANJA - GHANA

Marital Status: Single ☐ Married ☒

Nationality: GHANAIAN

Fathers' Name: ALIYU FUSHEINI

Mothers' Name: ANBANI AZARA

Bank: GHANA COMMERCIAL

Bank Account No.: 8061060006625

EMPLOYMENT HISTORY

Worked Before? Yes ☐ No ☒

Previous Employment?

DISTRICT / TOWN / LOCATION

Place: LANJA

Mobile Numbers (s): 0247090499

SIGNATURE / THUMB PRINT OF EMPLOYEE

SIGNATURE OF SUPERVISOR

APPENDIX 7: LIST OF SOME SADA FIELD WORKERS WITH THEIR ACCOUNT NUMBERS

NAMES WORKERS	OF	ACCOUNTS NUMBER	BANK AND BRANCH	CONTACT NO.
1. Chipura Adam		8061060006836	GCB, Bimbilla	0240928941
2. AlhassanChipura		8061060006281	GCB, Bimbilla	0540635824
3. Abdul-RazakShei		8061060006843	GCB, Bimbilla	0249679113
4. Aliu Mohammed		8061060006180	GCB, Bimbilla	0245257081
5. IddrisuRauf		8061060006882	GCB, Bimbilla	0241177433
6. Huudu Osman		8061060006664	GCB, Bimbilla	0240539505
7. Adam Fusheini		8061060006640	GCB, Bimbilla	0240087219
8. Ibrahim Mohammed		8061060006868	GCB, Bimbilla	0249614293
9. AlhassanAbdulai		8061060006453	GCB, Bimbilla	0541267232
10. AlhassanYussif		80610600089901	GCB, Bimbilla	0546816841
11. MbouHaruna		8061060006407	GCB, Bimbilla	0245224235
12. ShahaduSeidu		8061060006446	GCB, Bimbilla	0246831187
13. MahamuduIddrisu		8061060006439	GCB, Bimbilla	0545986712
14. MbowSulemana		8061060006414	GCB, Bimbilla	0242014560
15. AbdulaiTahidu		8061010089919	GCB, Bimbilla	0540471685
16. AttahAlhassan		8061010091021	GCB, Bimbilla	0541595832
17. AlhassanSeidu		8061060006421	GCB, Bimbilla	0542609494
18. Mohammed Iddrisu		8061060006478	GCB, Bimbilla	0542000637
19. Sandal Kongun		8061010089926	GCB, Bimbilla	0240154332
20. AlhassanYussif		8061010089863	GCB, Bimbilla	0208043432

21. JilimaTamanya	8061010078758	GCB, Bimbilla	0543303899
22. NlebiManabi	8061060006267	GCB, Bimbilla	
23. Abdul-RahamanMashud	8061010091039	GCB, Bimbilla	0205635249
24. NbonNiyab	8061060006696	GCB, Bimbilla	0546809476
25. IssahakuAbukari	8061060006351	GCB, Bimbilla	0245683852
26. Mohammed Yussif	8061060006383	GCB, Bimbilla	0203212494
27. AbdulaiAlhassan	8061010005552	GCB, Bimbilla	0208287448
28. SulemanaFusheini	8061060006320	GCB, Bimbilla	0247607455

