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DEPARTMENT OF DEVELOPMENT STUDIES

**EVALUATING THE IMPACT OF AGRICULTURAL PROJECT
ON RURAL DEVELOPMENT: THE CASE OF NATIONAL
PROGRAMME FOR ROOTS AND TUBERS DEVELOPMENT –
MINKOA, LOBO BASIN, YAOUNDE.**

A Thesis Submitted to the Department of Development Studies, in
Partial Fulfilment of the Requirements for the Award of a Master of
Science (M.Sc) degree in Regional Planning and Project Management

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BUEA, FEBRUARY 2016

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DEDICATION

This thesis is dedicated to my parents Mr. Defo Andre and M. Kengne Brigitte.

CERTIFICATION

This is to certify that the research on the topic **“EVALUATING THE IMPACT OF AGRICULTURAL PROJECT ON RURAL DEVELOPMENT: THE CASE OF NATIONAL PROGRAMME FOR ROOTS AND TUBERS DEVELOPMENT – MINKOA, LOBO BASIN, YAOUNDE.** Which is submitted in partial fulfillment of the requirements for the award of a Master of Science Degree in Sustainable Development (with specialization in Regional Planning and Project Management) at the Pan-African Institute of Development-West Africa is the original work of Defo Mela michèle. (PAIDWA00059)

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DECLARATION

This research “**EVALUATING THE IMPACT OF AGRICULTURAL PROJECT ON RURAL DEVELOPMENT: THE CASE OF NATIONAL PROGRAMME FOR ROOTS AND TUBERS DEVELOPMENT – MINKOA, LOBO BASIN, YAOUNDE**” is the original work of *DEFO MELA MICHELE*. And was carried out under the Supervision of Dr Uwem Essia (Supervisor).

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ABSTRACT

This study sought to examine the impact of agricultural project on rural development: the case of National Programme for Roots and Tubers Development (NPRTD) – Minkoa, Lobo basin. To achieve this, the study determined the impact of NPRTD Project management on production and income of concerned groups, assessed the strategies used by NPRTD Project and its impact on the communities and finally suggested measures to improve on the effectiveness of NPRTD Project so as to enhance rural development in Lobo division. 106 farmers benefitting from the NPRTD were sampled and the primary sources of data were obtained from the questionnaires. This was also complemented by secondary sources of data obtained from libraries, text books, journals, articles and reports. Descriptive statistics techniques were employed to analyze the information collected through questionnaires. The results showed that NPRTD support has led to an increase in rural farmer's project activities by at least 50 percent. Furthermore, a positive impact of NPRTD was observed on farmers in the light of increases in production, income, family investments and savings. Although the scheme has registered success in reducing poverty through an increase in project activities and incomes realized, the scheme is marred by challenges such as the absence of farm-to-market roads, high cost of transport for foods, and limited funds. Recommendations were proposed to NPRTD, the farmers and the ministries involved so as to enhance their contributions towards poverty alleviation for the rural development in Lobo Division.

Keywords: *rural development, impact, agricultural development, project and roots and tubers.*

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LIST OF ABBREVIATIONS

ACEFA:	Program for the Improvement of Competitiveness of Family Agro Pastoral Farms
ADB:	African Development Bank
CIDA:	Canadian Development Agency
CAMRD:	Rural Development Model for Cameroon
DFRRI:	Directorate of Roads and rural infrastructure
FONADER:	National Fund for Rural development
HELVETAS:	Swiss Association Co-operation
GP-DERUDEP:	Grass field Participatory and Decentralized Rural Development Project
MIDENO:	Northwest Development Authority
MINADER:	Ministry of Agriculture and Rural Development
MINEPIA:	Ministry of Fishery, Livestock and Animal Husbandry
NGOs:	Non-Governmental Organizations
NPRTD:	National Programme for Roots and Tubers Development
PACA :	Agricultural Competitiveness Project
PADMIR :	Projet d'Appui au Developpement de la Microfinance Rurale.
OECD:	Organization for Economic Co-operation and Development
R&T:	Roots and Tubers
SOWEDA:	Southwest Development Authority
SSA:	Sub Saharan Africa
UNDP:	United Nations for Development Programme
UNVDA:	Upper Noun Valley Development Authority
SSA:	Sub Saharan Africa
WRD:	World Development Report

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Agriculture plays a prominent role in the socio-economic development of most sub-Saharan African countries. African governments put agriculture at the top of their development priorities, given the fact that secondary and tertiary industry is limited and not fully developed. Notwithstanding this interest in the agricultural sector, agriculture is still widely seen as underperforming and practiced with the use of rudimentary tools (World Bank, 2007; Inter Academy Council, 2004). A complete re-orientation of economic policy is essential in these countries to promote economic growth, to generate income and to reduce poverty (Godoy and Dewbre, 2010).

Understanding agriculture's role has important implications for policy making. Dutt and Ros (2008) posit that one extreme view, commonplace in the development literature of the 1950s, is that the agricultural sector is simply a reservoir of unemployed or underemployed labor. As a result, low incomes and living standards, from which people must eventually be moved by economic growth in the non-agricultural economy. The extreme alternative view is that the agricultural sector itself must generate the growth that will eventually release labor and other resources (Dutt and Ros, *ibid*). The farm sector has likely of being the industrial and economic springboard from where a country's development can take off (Ogen, 2007). Indeed, more often than not, agricultural activities have usually been concentrated in the less-developed rural areas where there is a critical need for rural transformation, redistribution, poverty alleviation and socioeconomic development (Stewart, 2000).

Apart from Northern Africa, which is somewhat richer than the rest of the continent and Southern Africa where mining and other industries play a significant role, the rest of the continent's population and workforce are heavily agricultural, with approximately 60% of the labour force involved in agriculture (Diao, 2006). This perhaps, explains why the World Development Report (2008) introduced the "agriculture for development agenda" which stresses the crucial role of farming in the development of societies, especially those of the developing world. Throughout history, increases in agricultural sector productivity have contributed greatly to economic and social growth and poverty alleviation. As a result, any

serious discussion of growth in Africa needs to begin with a look at the role played by agricultural development via proper agricultural project management.

According to a paper jointly published in 2007 by the Ministry of Agriculture and Rural Development (MINADER), and that of Fishery, Livestock and Animal Husbandry (MINEPIA), in recent years, food production did not follow the rapid demographic increase, especially in the urban areas (Encyclopedia of the Nation » Africa » Cameroon). For these ministries, food security has to be assured by an increase in the production of food stuff and other crops to substitute importation. The Government, faced with the effects of the financial crisis, has taken steps to boost production of commodities such as maize, rice, cassava, potato, oil palm and plantain. For food crops, these measures aim at improving the commercialization of products through the construction of warehouses for conservation.

In 2009, the agricultural sector accounted for approximately 75.6% of the primary industry with 68.8% for food crops and 6.8% for export crops. This sub-sector was increased by 8.3% compared to 2008, contributing 0.7% to growth actual primary sector (Institut National de la Statistique– Annuaire Statistique du Cameroun 2010). Still in 2009, the Government through the MINADER implemented an emergency plan to increase agricultural production. This sought to subsidize pesticides and fertilizers from 20% to 50%, grant loans at low-interest rates, create five pools of farm machinery support up to 15%, acquire about a hundred tractors and increase the capacity of processing, storage, and packaging all in a bid to improve agricultural production.

Schultz (1980) observed that until communities and countries made scientific and institutional advances meet reliably their subsistence food needs through improved production, processing and trade, few could begin the process of modern economic growth. Cognizant of the crucial role agricultural projects could play in the socio-economic growth process of Cameroon, the government has embarked on a series of agricultural development intervention packages, some of which include facilitating access to credit for farmers through the establishment of partnership arrangement between producer organizations and microfinance institutions, according grants or subventions, donating tractors and other farm equipment, providing training to enhance the capacity of farmers and provide farmers with fertilizers and pesticides. These packages were geared towards improving agricultural productivity and production.

However, the management of these agricultural projects has a major stake as far as the expected outcomes are concerned. The case of the Lobo Division of the South Region is of the essence where some of these projects have been introduced. Most of these agricultural projects target rural areas where agro potentials exist. This is evident with projects such as the National Program for Roots and Tubers Development (NPRTD), the Agricultural Competitiveness Project (PACA), the Grass field Participatory and Decentralized Rural Development Project (GP-DERUDEP), Program for the Improvement of Competitiveness of Family Agro-Pastoral Farms (ACEFA), the Northwest Development Authority (MIDENO) and the (PADMIR) *Projet d'Appui au Developpement de la Microfinance Rural*. These projects have been introduced in a bid to enhance the improvement of the livelihood of the rural poor, ensure food security and sufficiency in these rural areas of Cameroon.

Though most of these projects may take different approaches, they are all geared towards improving upon the livelihood of the rural poor in these regions. Agricultural projects are generally understood as investment activities in which financial resources are expended to create capital assets that produce benefits over an extended period. In some projects, however, costs are incurred for production expenses or maintenance from which benefits can normally be expected quickly, usually within about a year. An enormous variety of agricultural activities may usefully be cast in project form. The World Bank itself lends for agricultural projects as different as irrigation, livestock, rural credit, land settlement, tree crops, agricultural machinery, and agricultural education, as well as for multi-sectoral rural development projects with a major agricultural component. The case of the National Program for Roots and Tubers Development (NPRTD) is of essence to this research work.

1.2 Problem Statement

At the dawn of the 21st Century, agriculture remains to be a fundamental instrument for sustainable development and the consequent reduction of poverty especially in developing economies which are largely dependent on it (WDR, 2008). Promoting agriculture is imperative for the achievement of Sustainable Development Goals of reducing poverty and hunger. A case in point is the government of Cameroon's policy of integrated rural development which gives premium to agriculture, through various innovative strategies. Agriculture has a major role to play in Cameroon's Vision 2035 of becoming an Emerging Economy, but yet, this role is still to be justified. The management system of agricultural projects is the driving force of growth and development. It should be noted that the management of NPRTD has a bearing on production and consequently on rural development.

Although the general goal of the project is to improve food security and increase rural income by developing the R&T sector, the effectiveness of the management strategies (coordination, planning, monitoring and control, capacity building and providing access to market) of these projects shows significant variations; this leads to variations in the level of rural development (production, employment, income, capacity building, investment, saving and consumption, expansion of farms, etc.).

Furthermore, these agro-projects are plagued with so many problems such as: lack of common framework of action and coordination of activities, unclear delineation of responsibilities between government institutions and the other stakeholders, dissipation of the limited financial resources for environmental concerns, poor infrastructural development, limited motivation and subventions to encourage the smooth running of the projects, little or no follow-up and poor feedback mechanism (field observations, 2015).

As a result, the effectiveness of the management of agricultural projects in Lobo Division varies from one project to another. Such variations also lead to differences in agricultural outputs, employment and income and their respective contributions to rural development in Lobo Division. Various measures, though limited, have been and are being put in place by different actors to enhance the management of agricultural projects (field observations, 2015). This could be viewed in the light of the maintenance of old roads and the construction of new ones. The government, on her part, has been encouraging the formation of agricultural associations and farmers groups.

The NPRTD is not out only to improve food security, production and increase income in poor rural areas by developing the R&T sector but also providing subsidies to its beneficiaries to assist them to come up with projects that will enable them raise their income levels and thus, ameliorating the living standards of rural households. By doing so, the NPRTD program has made it possible for the beneficiaries to sustain projects that will help them to achieve success and to provide for their core and essential needs. That way, they are indirectly trying to reduce household poverty. Despite these initiatives to reduce rural poverty, NPRTD is still gripped by a series of challenges: inadequate capacity development of farmers, poor farming/cultivation techniques, poor farm practices that are a breeding ground for pest, lack of financial means, non-mastery of conservation techniques and processing that lead to preservation and transformation difficulties, lack of transport, lack of markets organization group sales thus leading to difficulties in evacuation of harvested products to the market as such leading to a decrease in marketing (field observation, 2015). All of these make

accessibility difficult for those considered as the unable poor and as such the able poor are left to benefit more from the agricultural project. With all these measures we can see that contributions to rural development in Lobo Division remain low. Therefore, the problem must be sought in areas other than lack of resources but underscoring the need to investigate the quality of management within such innovative projects. Cognizant of the role agriculture plays in Lobo Division; this study seeks to evaluate the impact of the National Program for Roots and Tubers Development (NPRTD) on rural development.

1.3 Objectives of the Study

Main Objective: The primary purpose of this study is to evaluate the impact of NPRTD agricultural project management on rural development.

Specifically, the study seeks to:

- ✓ Determine the impact of NPRTD Project management on production and income of concerned groups in Lobo Division.
- ✓ Assess the strategies used by NPRTD Project and its implications for the community
- ✓ Suggest measures to improve the effectiveness of NPRTD Project so as to enhance rural development in Lobo division.

1.4 Research Questions

- ✓ What impact does the NPRTD project have on the production and income of concerned groups in lobo division?
- ✓ What are the strategies used by NPRTD to achieve its objectives and what impact does it have on the community?
- ✓ What measures can be used to improve on the effectiveness of agricultural Project management so as to enhance rural development?

1.5 Significance of the Study

- The study is essential in that it would help the NPRTD program to understand those problems, difficulties, and constraints that rural communities are facing which restricts them from attaining their goals and objective of reducing poverty.
- The evaluation of this agricultural project would also help the NPRTD program to unravel the strengths and weaknesses of using agricultural tools for reducing poverty.

- The findings of the study might contribute to re-designing or design new strategies for poverty alleviation within the NPRTD Program.
- It would generate new knowledge useful to development planners, policy makers and practitioners in relevant Ministries, NGOs, and other bodies interested in promoting gender issues and poverty alleviation at the household level.
- This study is in line with the tenets of VISION 2035 which has as objective the need to transform Cameroon into “An Emerging Economy by 2035”.

1.6 Scope of Study

This study looked at NPRTD within the scope of three agricultural activities (Cassava, sweet potatoes, and yam) and the period of two years (2013- the base year and 2015- the current year). This study equally made use of the predominant cooperative found in that area working in partnership with NPRTD in Lobo Division. The participants of the collective were selected from seven (8) communities Minkoa, Nkolyem, Nkolmelen, Ovang, NGOs, Nkolmeyang, Ekekam III, and Nkongmessa. This is so because farmers were selected on the criterion that they must have been working with NPRTD for at least two years. This enabled the researcher to be able to compare both years (one considered as a base year and the other current year), to ascertain the progression of the project from the base year to the current year.

1.7 Organization of the Study

This study is organized as follows: - Chapter one contains the background of the study, problem statement, research objectives, significance of the study and definition of terms. Chapter two presents the literature review, theoretical framework, and empirical framework. Chapter three is devoted to research methodology. Chapter four consists of the presentation and interpretation of data as well as discussion of findings. Chapter five gives a summary of the work, conclusion, recommendations and suggestions for further research.

1.8 Brief description of Study Area

The study was conducted in Minkoa Division in the South region of Cameroon (Figure 1.1). The surface area of the study site is approximately 400km square. It is bounded by Akok and Ntui-Essong to the North, Boyo to the East, Kouidi Divisions to the West and Menguep to the South and by Lobo division in the South West. The Division has an estimated population of 25,000 inhabitants under three ethnics groups: Mvog Onankoa, Mvog Ebode, and Mvog Mvondo. The majority of the population is made of women. Most of the villages are rural,

and the settlement is sparsely populated with expansive agricultural. Like natural resources, they have rivers that pass through the village, a sandpit, and many virgin forests. The urban/semi-urban areas make about 25% of the total area. The study area is characterized by four main seasons: big raining season, which starts in September to November, small raining season which starts from the mid-way of March to the mid-way of April, the small dry season which starts from the mid-way of July to the mid-way of September and big dry season from mid-way of November to the mid-way of March. The relief is constituted of hills and lowlands. The vegetation comprises herbaceous shrubs and trees, and wildlife includes gorillas, snakes, and monkeys.



Figure 1.1: Map of Cameroon locating the study site



Figure 1.1: Map of Cameroon locating the study site

1.8.1 Description of the program

Roots and Tubers (R&T) occupy 70% of farmland in Cameroon and account for 46% of subsistence crops. In 2000, R&T production reached 5 million tons, including 2 million tons of cassava. In addition to cassava, R&T include macabo/taro, yam, sweet potato and potato. 90% of R&T producers and small processors are women. The development of this sector is a key component of the country's rural development strategy aiming for an annual growth of 7% of the agricultural production, as set by the government. R&T are also crucial to ensure food security and boost rural employment. Several constraints towards the development of R&T exist. Amongst this include:

- A poorly organized marketing system
- Technical weaknesses in post-crop processing, and
- Limited productivity and low production.

Also, there are water shortages and poor R&T transportation and stocking systems. NPRTD covers the country's five agro-ecological areas (the North, the Adamoua Plateau, the Western High Plateau, the Low Coastal areas and the Southern Plateau). It intervenes in villages upon request by R&T farmers, as well as over the basins (neighboring villages that have a common agricultural system and marketing strategy).

The overall project goal is to improve food security and increase income in poor rural areas by developing the R&T sector. The program has adopted a market-based strategy that builds the capacities of small R&T farmers and processors - 90% of whom are women – in organizing themselves in the villages, basin, district and the country and in developing their production and processing activities in such a way as to answer the demand from consumers. More specifically, the program aims to:

- Build the capacities of small R&T producers and processors, to build strong peasant organizations and to efficiently plan and manage the development of the sector in an integrated, open and durable manner;
- Allow R&T producer organizations durable access to local, national and sub-regional markets;
- Allow R&T women producers and processors durable access to adequate post-harvest treatment and processing techniques to meet the demand of consumers;

- Make a significant contribution to an increase in R&T production through improved techniques that answer market needs and may be widely adopted by poor R&T producers.

1.8.2 Components of the program

In total, it has four components:

- Component 1: Capacity building and support to the structuring of peasant organizations;
- Component 2: Support to marketing and managing of micro-enterprises;
- Component 3: Support to the production and processing/post-harvesting and finally
- Component 4: Program management and coordination.

The duration of the project was for nine years, that is, from 2004 to 2013. Two years after the completion of the project it's necessary to evaluate the impact of the NPRTD in Minkoa so as to assess the role it plays in reducing poverty on rural development.

1.9 Definition of Terms

• **Rural Development:** According to Stamoulis, A (2007), a reasonable definition of rural development would be: development that benefits rural populations; where development is understood as the sustained improvement of the population's standards of living or welfare. Moseley (2003) equally defines rural development as the process of improving the quality of life and economic well-being of people living in relatively isolated and sparsely populated areas. Linn (2012) also defines rural development as a broad-based reorganization and mobilization of rural masses to enhance their capacity to cope effectively with the daily task of their lives and with changes consequent upon these tasks.

• **Impact:** Impact refers to the changes caused by the implementation of a project (as a processor state) which are either intended or unintended, have occurred or are impending; these changes may be either favorable or adverse. Project impact is also dependent on the project environment, given that a project is one element in a system of relationships with mutual interactions.

• **Agricultural development:** OECD (2006) defines Agricultural development as a process that creates the conditions for the fulfillment of agricultural potential. Those conditions include the accumulation of knowledge and availability of technology as well as the allocation of inputs and output. The agricultural development also means providing assistance

to the crop producers with the help of various agricultural resources for example: Providing protection, assisting in the research sphere, employing latest techniques, controlling pests and facilitating diversity all fall within the purview of farm development.

- **Project:** The term “Project” has been defined in various ways by different authors. A project is accomplished by performing a set of activities. Heerken (2002) establishes a project as a group of tasks, performed in a definite period, to meet a particular set of objectives. Howes (2001) equally defines a project as, “work that is temporary and produces a unique product or service.”

- **Roots and tubers:** are plants yielding starchy roots, tubers, rhizomes, corms, and stems. They are used mainly for human food (as such or in processed form), for animal feed and manufacturing starch, alcohol and fermented beverages including beer.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Literature Review

The three suitable concepts that apply to this study include the Concept of project management, agricultural development, and rural development.

2.1.1 Concept of Project Management

Trying to manage a project without project management is like trying to play a football game without a competition plan. In today's fast-paced world, organizations that practice sound project management methods have a competitive advantage over those who fly by the seat of the pants. This is so because the competition is rapidly becoming time-based as well as cost-based. That is, if you can get a product or service to market faster than anyone else, you have an edge on your competition. Further, if you can control the costs of your work better than others, you can sell your products or services at lower margins; "sloppy" management requires that goods be sold at higher margins to make sure the business is profitable.

The term "Project" has been defined in various ways by different authors. A project is accomplished by performing a set of activities. Heerken (2002) establishes a project as a group of tasks, performed in a definite period, to meet a particular set of objectives. Howes (2001) equally defines a project as, "work that is temporary and produces a unique product or service." Going by the definitions above of a project, it can be seen that a different set of practices are needed to manage projects. Here, specific tasks and resources are being managed against a time-oriented set of objectives. Some good examples of projects are a construction of roads, an irrigation work for a community, agricultural extension service and installation of water schemes. The effectiveness of the management of these projects has significant implications for socio-economic growth. Management has been defined in many ways. Mary Parker Follett, an early management scholar, offered what had come to be known as the classic definition when she described management as "the art of getting things done through people" Watson (1994).

Although this definition captures the human dimension of control, a more comprehensive definition is needed. Lewis (2007) defines management as the process of administrating and coordinating resources effectively, efficiently, and to achieve the goals of the organization.

As a result, management includes establishing appropriate overall organizational goals. The degree to which the goals are achieved is defined as effectiveness. This efficiency is obtained by using the fewest inputs (such as people and money) to generate a given output. In other words, effectiveness means, “doing the right thing” to achieve the appropriate goals, and efficiency means, “doing things right.” The result of effective and efficient management will be the organizational success.

Although project management is a form of the Directorate, managing, in general, is different from project management. A project is done only once, whereas most jobs are ongoing or repetitive, and managing one-time jobs is different from managing current ones. For one thing, the people who work on a project may be reassigned to other jobs once the project is completed, so the team is temporary. Often the team members do not report to the project manager on a regular basis, meaning that the project manager has no direct authority over them, a situation that presents its set of problems. According to Kleim and Ludin (1998), project management is the tools, techniques, and processes for defining, planning, organizing, controlling, and leading a project as it completes its tasks and delivers the results.

Lewis (1995) also defines project management as the planning, scheduling, and controlling of project activities to meet project objectives. The primary objectives that must be fulfilled include performance, cost, and time goals while at the same time you control or maintain the scope of the project at the correct level. Ideally, the scope of a project should remain constant throughout the life of the job. Naturally, this seldom happens. In most cases the magnitude (scope) of the work increases as a result of overlooked details, unforeseen problems, and inadequately defined problems. The most common reason for scope changes is that something is forgotten.

Project Management Cycle

Projects operate as part of a system and involve high degrees of uncertainty; by using a holistic approach, project managers can integrate all the internal and external issues into their planning. It also helps them see projects as a series of interrelated phases. By doing these project managers have a better job of ensuring project success. It is a good practice to divide projects into several phases. A project life cycle is a collection of project phases. These steps vary from one industry to another, but in general, they include an initiation, planning, implementation/execution, monitoring and close phase.

A project must complete each step before moving onto the next. This approach to project management cycle provides better management control and builds the appropriate links with the general environment (Nagarajan, 2012). The rationale behind the use of project management phases is that it supplies for an integrated approach that provides for the continuous identification, selection, implementation, monitoring, evaluation and learning. These help in keeping the project on track and determining if the project should continue, be redirected or be terminated (Nagarajan, ibid, 2012). Each phase should not be seen as independent from another phase, but as an interdependent continuous management effort; outputs from one stage are used as input for the next step. These project management steps are illustrated in **Figure 2.1**

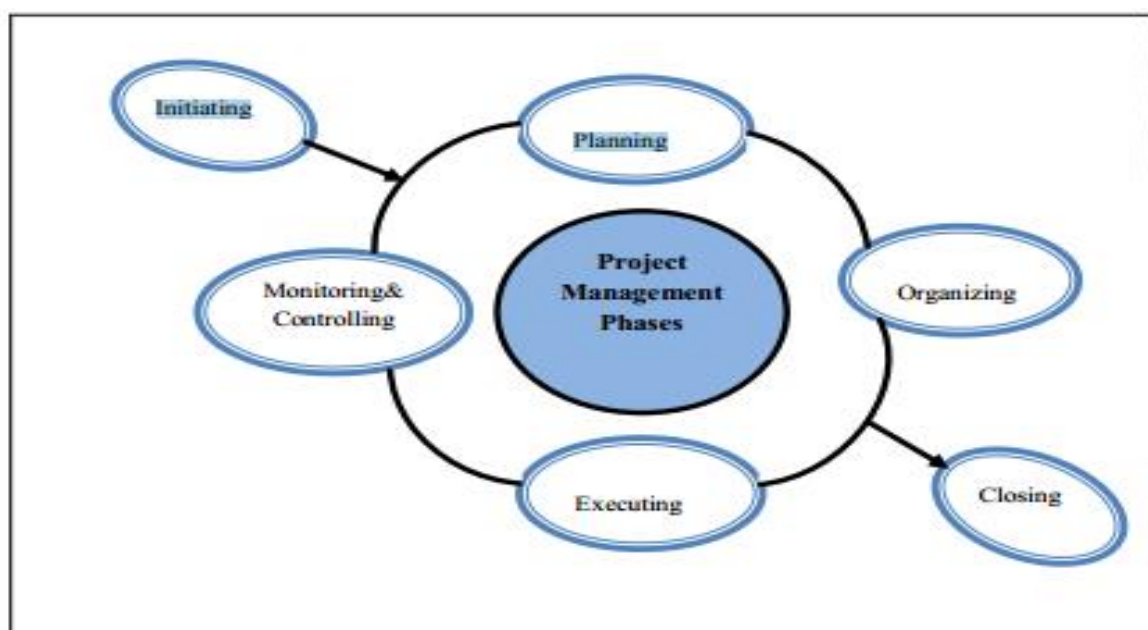


Fig. 2.1: The project management cycle. (Source: Project management by Nagarajan, K. (2012).

Explanation of Fig 2.1

Initiation: This phase is where an idea or a proposal is authorized and funded as a project. It may include some initial planning and estimations to clarify its objective and scope. Usually, projects are started by an organization in the form of a proposal, or they are initiated by a donor agency, by a competitive bidding process or a cooperative agreement. In either case, the organization makes a decision to support the project proposal.

Planning: This defines the project activities that will be performed and describes how the activities will be accomplished. The purpose of planning is to determine each major task, estimate the time and resources required, and provide a framework for management review and controls.

Organizing is the process of identifying and analyzing the activities of the organization, grouping the activities into distinct area/departments and establishing the authority-responsibility relationships amongst them. It also involves organizing the resources required for the accomplishment of organizational objectives.

Executing is the process of carrying out the project activities as per the plans. Though the project execution shall as far as possible be done according to plans originally envisaged, changes/modifications required, if any, are to be incorporated wherever necessary. Since projects are dynamic in nature, flexibility is essential in the execution of projects so that the overall objectives of the project are achieved.

Monitoring and Controlling process oversees all the tasks and metrics necessary to ensure that the approved and authorized project is within scope, on time, and on the budget so that the project proceeds with minimal risk. This process involves comparing actual performance with planned performance and taking corrective action to yield the desired outcome when significant differences exist. Monitoring and Controlling process is continuously performed throughout the life of the project.

Closing: Projects are temporary endeavors. Hence, they have a beginning and an end. A project comes to an end when the execution is completed, and the project objectives are fulfilled. For every project, there must be a formal process called “closing” for declaring the closure of the project.

It may be noted that apart from initiating and closing that are first and last phases of projects, the intermediate four steps can form a cycle as illustrated in **Fig. 2.1**. At the execution phase, some difficulties or inconsistencies may arise. Because of this, certain activities of the project may require re-planning. Organizing men and material resources may pose hurdles, and this may necessitate modifications in the plans envisaged. Similarly, monitoring and controlling phase may bring out some deviations from the plan and it may at times point towards revising the plans for correcting the deviations and bring the project performance in tune with the original plan.

Project management as a technique is assuming greater importance since it aims at the optimum utilization of resources. Every person is practicing project management in his day-to-day life. When a person uses the shortest route to reach his office, for instance, it involves all the stages of project management: planning, scheduling, implementing, controlling and monitoring. He plans for the shortest route; he schedules his starting time; he monitors the speed of his vehicle to reach his destination in time. By choosing the shortest route, he tries to optimize the usage of fuel for his car, and he also attempts to contact the office at the earliest possible date. Some projects can become extremely complex in nature. As a project becomes larger, its complexities concerning planning, implementing, controlling and monitoring increase. For efficient management of larger and complex projects, systematically devised techniques are followed. Given the compound and diversified nature of activities in the agricultural sector, the project management approach has been a very useful instrument to plan, implement, coordinate and control the large size agriculture development projects. The importance of project management techniques become more important in the agricultural sector because of the ever present high amount of risk and uncertainty associated with this industry. The purpose of project management is to plan, organize and control the activities so that the projects are completed in the best possible manner within the prescribed time and budget, in spite of all the risks.

Cognizant of the importance of project management in project success, it is imperative for agricultural project managers in particular and project managers, in general, to take into consideration the best practices of project management in planning, organizing, and controlling project activities. This will enable the project to be finished on time, and as a result, meet the goals of the project. This concept is relevant in the study because some of the identified gaps which hinder successful outcomes in NPRTD could be attributed to lapses in planning. For instance, the late disbursement of agro-outputs for farmers to do their farming activities is an aspect of management which needs to be improved upon. Therefore, the success of NPRTD projects depends on the way management is enforced.

2.1.2 Concept of Agricultural Development

The choice of this model is timely because it falls in line with the World Bank policy on agriculture as an engine for development especially in developing nations (Kimengsi, 2011). Also, given that this division is highly agrarian in nature and has enormous agricultural potentials, the study suggests an efficient utilization of agriculture as an engine of growth and development. This framework was put in place by the World Development Report (WDR,

2008) whose slogan has been to “make agriculture an engine of growth.” Figure 2.2 shows the four policy objectives of the agriculture for development-agenda which forms a system diamond as postulated by the WDR (2008, cited in Kimengsi, 2011).

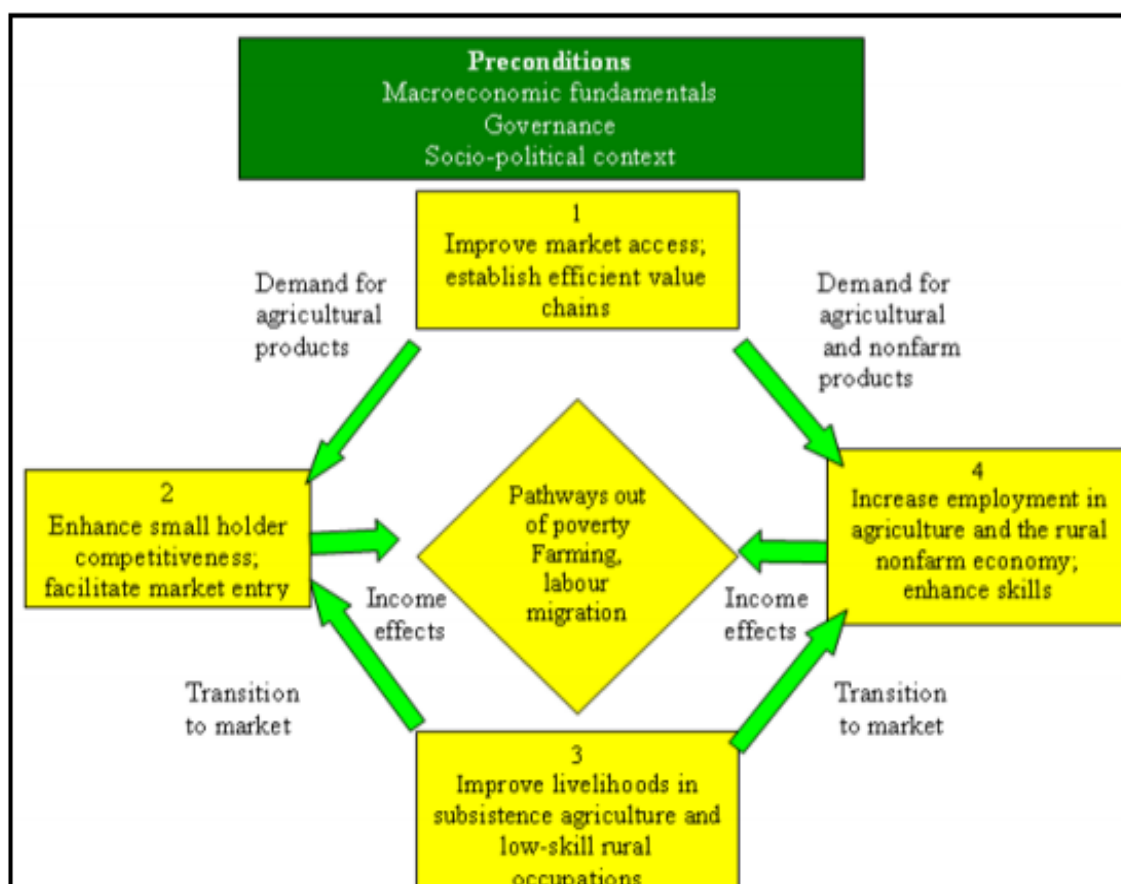


Fig 2.2: The Four Policy Objectives of the Agriculture for Development-Agenda

(Source: World Development Report, 2008).

The first of these policies is to improve market access and establish efficient value chains. Value chains link demand in agricultural markets to smallholder producers and create jobs along the links and in agriculture. Policy interventions to facilitate value-chain development include: improving the overall investment climate and forming strategic public-private partnerships.

Secondly, there is the system to enhance smallholder competitiveness and facilitate market entry. Smallholders can be competitive and a source of innovation with sufficient asset endowments and in favorable contexts that allow them to sell their surpluses. Policy interventions to enhance their competitiveness and profitability include trade reforms for greater market access, improved infrastructure, better technology, adequate financial services and inputs, and active producer organizations to gain access to services, markets and

policymaking. This strategy is very vital in the revalorization of the agricultural sector in most parts of Lobo Division. One of the key activities geared towards improving agricultural productivity is the introduction of the NPRTD project.

Thirdly, an improvement of livelihoods in subsistence agriculture and low-skilled rural occupations are necessary. Livelihoods in subsistence farming can be improved in four ways; increasing land and labor productivity, increasing resilience in agricultural systems to reduce risk and food insecurity, improving the nutritional value of food produced for home consumption and diversifying income in agricultural labor markets and the rural nonfarm economy to access cash revenue and reduces vulnerability. The vulnerability of these rural peasant farmers who constitute the bulk of the population of the backward regions has manifested in their inability to purchase or acquire farm inputs, their lack of improved techniques and tools for agriculture, and their poor storage and marketing systems. This has made the sector less viable than expected.

Fourthly, there is the need to increase employment opportunities in rural labor markets and enhance skills. New skills are important on the supply side of energy to gain more remunerative sources of employment while on the demand side, investment and jobs opportunities for skilled labor can be enhanced in the rural nonfarm sector through a better investment climate and territorial development – and in agriculture through jobs in technically demanding tasks, particularly in high-value activities. Strengthening governance is essential not only for policy making but also for implementing agricultural agendas actually and using public resources efficiently. To improve management for policy implementation, it helps to distinguish the demand-side approaches from supply-side approaches. Decentralization, which is the transfer of political, administrative and fiscal authority to lower levels of government, is one governance reform that can support the agriculture-for-development agenda. By bringing government closer to the people, it promises to make policy making and implementation more responsive to the needs of the (often disenfranchised) people in rural areas. It can correct government failures in agriculture by ensuring greater access to local information and mobilizing local social capital for policy enforcement. Three types of governance problems can hamper the agriculture-for-development agenda; lack of macroeconomic and political stability limits the development potential of the sector. Sound agricultural development strategies require a substantial capacity for policy analysis and evaluation and a commitment to evidence-based policy making. And as past successes show, using agriculture for development calls for vision and

leadership. Of importance is the need to increase employment and enhance food security. This perhaps summarizes the role of the NPRTD.

2.1.3 Concept of Rural Development

Rural development in the world generally and in the third world in particular has assumed the front-burner status since the early 1980s because governments have realized that except given the seriousness it deserves and closing the gap between theory and practice in this area, the goals of achieving accelerated national development particularly at rural level which is the grassroots base, will remain elusive at least in the third world (Moseley, 2003). It is not an exaggeration to say that the battle to achieve the global society's stated objectives on hunger and poverty reduction will be won or lost in the rural areas of the developing countries.

Globally, extreme poverty continues to be a rural phenomenon despite increasing urbanization. Of the world's 1.2 billion destitute people, 75 percent live in the countryside and for the most part, they depend on agriculture, forestry, fisheries, and related activities for survival (Ward, et. al, 2009). The promotion of the rural economy in a sustainable way has the potential of increasing employment opportunities in the countryside, reducing regional income disparities, stemming pre-mature rural-urban migration, and ultimately reducing poverty at its very source. The term rural development is a subset of the broader term "development". How so ever we define it, development is a universally cherished goal of individuals, families, communities and nations all over the world. Development is also natural in the sense that all forms of life on planet Earth have an inherent urge to survive and develop. Given these two attributes (its universal supremacy as a goal and its natural occurrence); development deserves a scientific study and analysis. The definition of rural development has evolved through time as a result of changes in the perceived mechanisms and goals of development.

According to Anríquez and Stamoulis (2007), a reasonable definition of rural development would be the development that benefits rural populations; where development is understood as the sustained improvement of the population's standards of living or welfare. (Moseley, 2003) Equally defines rural development as the process of improving the quality of life and economic well-being of people living in relatively isolated and sparsely populated areas. Linn (2012) also defines rural development as a broad-based re-organization and mobilization of rural masses to enhance their capacity to cope effectively with the daily task of their lives and with changes consequent upon this task. Byerlee, D.et al (2005) perceives rural development as an overall development of the countryside to (or "intending to") improving the quality of

life of rural people. In this sense, it is a comprehensive and multi-dimensional concept and encompasses the development of agriculture and allied activities, village and cottage industries and crafts, socio-economic infrastructure, community services and facilities, and above all the human resources in rural areas.

Rural development can be conceptualized as a process, a phenomenon, a strategy and a discipline (Singh, 2009). As a phenomenon, rural development is the result of interactions between various physical, technological, economic, socio-cultural and institutional factors. As a strategy, it is designed to improve the economic and social well-being of a particular group of people - the rural poor. As a discipline, it is multi-disciplinary in nature, representing an intersection of agricultural, social, behavioral, engineering and management sciences. In the words of Robert Chambers (1983: 1 47):

“Rural Development is a strategy to enable a particular group of people, poor rural women, and men, to gain for themselves and their children more of what they want and need. It involves helping the poorest among those who seek a livelihood in the rural areas to demand and control more of the benefits of rural development. The group includes small-scale farmers, tenants, and the landless.”

The process of rural development may be compared with a train in which each coach pushes the one ahead of it and is, in turn, driven by the one behind, but it takes a powerful engine to make the whole train move. The secret of success in rural development lies in identifying and developing a suitable project management strategy. As asserted by Hazell, P. (2007), there are no universally acceptable blueprints to determine appropriate engines of rural development, if at all they exist. It is a choice that is influenced by time, space and culture.

While economic growth is an essential component of development, it is not the only one, as development is not a purely economic phenomenon. In the ultimate sense, it must encompass more than the material and financial aspects of people's lives. Development should, therefore, be perceived as a multidimensional process, involving the organization and reorientation of both economic and social systems. In addition to improvement in level and distribution of incomes and output, it also means radical changes in institutional, social and administrative structures, and values and ethos of individuals and communities.

Agriculture plays a great role in rural development in most, if not all, developing countries in general and Cameroon in particular. According to the World Bank, Rural development must be clearly designed to increase production. It recognizes that improved food supplies and

nutrition, together with essential services, such as health and education, not only directly improve the physical well-being and quality of life of the rural poor but can also indirectly enhance their productivity and their ability to contribute to the national income. Rural Development ensures the modernization of the agricultural society and the transition from its traditional isolation to integration with the national economy. It is concerned with increased agricultural production for urban and international markets.

2.1.4 Impact of farm projects on production and income

Despite the billions of dollars spent on development assistance each year, there is still very little known about the actual impact of projects on output and income of the poor. There is ample evidence on the benefits of economic growth, investments in human capital, and the provision of safety nets for the poor but that doesn't guarantee the impact in a broader sense. Most less developed countries depend on rural areas for most of their survival and development resources. Agriculture, which is the primary activity of these regions, employs between 70% and 80% of the working population. Besides, local rural communities ensure food consumption from agricultural production, thereby guaranteeing house-hold food security (World Bank, 2008). Given the fundamental role that project interventions play in the rural development process, it is imperative to assess both the specific and overall impacts of implemented projects. Several approaches to evaluate agricultural development projects have evolved over time. According to Kirkpatrick (1994), various appraisals of most projects have focused on cost-benefit or cost-effectiveness methods by assessing project costs (monetary or non-monetary), in particular, their relation to alternative uses of the same resources and the benefits being produced by the projects. Consequently, project evaluations in recent times have focused on the impact assessment approach, whereby project success emphasizes more broadly on whether the project had the desired effects on individuals, households and institutions and whether those effects are attributable to the project intervention. Accordingly, evaluating the impact of rural development projects on agricultural productivity becomes a challenge to deal with (GTZ, 2008).

Various authors have in the past focused on impact evaluation of development projects on sustainability. In Central America for example, some projects have promoted soil conservation or land recuperation technologies that benefitted farmers through the increase in productivity (Brunch, 2001). Likewise, Doppler and Bothe (1999) showed that the adoption of *Cassia siamea* in rural Benin improved soil fertility and agricultural productivity and led to an increase in the overall family income. This demonstrates the impact of the project on

production and revenue which shows an increase and thus helps in reducing poverty for many rural farming households. As a result of the increase in productivity and revenue due to the adoption of new technology (project) for bean growing in South-Benin, Allogni et al. (2008) found that food expenditure increased, and food security in households showed some improvement. Research undertaken also proves agricultural productivity and income over the years due to rural development projects have undoubtedly augmented food availability and kept food prices low, providing essential benefits for poor households that spend more than half their income on food (Kerr and Kollavali, 1999). Arguing in the same way, IFPRI (2001) reported that the project “Improving Food Security in Bangladesh” implemented since the 1980s resulted in a significantly increased availability of and access to food in rural areas of Bangladesh. In countries where starvation is disastrous for rural people, various projects are implemented to avoid malnutrition diseases and death, mainly among children. For example, (IDRC, 2003) found that 30 projects implemented in Ethiopia that focused on agriculture and water management saved more than 25% of rural communities from starvation, malnutrition diseases and death.

That notwithstanding some viewers sees it as a contrast that has rather slowed production for the poor and increased the advantages for the wealthy. They consider the overall process of project implementation and technology adoption in agriculture biased towards wealthy people so that the poor are made worse off. The rich get richer while the poor get more inadequate resulting in social unrest and a decidedly unsustainable food system. The fundamental relationship according to this framework is that technologies, policies, and institutions are biased for wealthy farmers who have unequal access to assets to begin with. Their income rises when they adopt the improved technologies while the income of non-adopting farmers fall, many agricultural workers are displaced and some of those who remain, suffer from overexposure to poisonous chemicals (Winkleman, 1998; Kerr and Kolavalli, 1999).

Finally, in impact, evaluation of a rural development project, another decisive discourse regarding success is whether the results are maintained after the project is completed, or in short, whether the project is sustainable (GTZ, 2008). Sustainability is seen as a result of the impact on the viability of the production system where the project is implemented and of a long-term duration of the effect, even after the termination of the projects. Typically, sustainable projects are those designed and financed to build local capacities and to develop the ability of local people to manage and utilize the development activities themselves; that is institutional, and empowerment supports (Clayton et al., 1998; Uphoff, 1989; McAllister, 1999). The capacity building is particularly viewed as critical for sustainability and many

institutions such as GTZ, World Bank, and UNDP has directed their supports towards more technical assistance to achieve the better capacity building of local people (GTZ, 2008).

2.1.5 Strategies to enhance agricultural production through rural development

As asserted by Ernest L. Molua (2002) there is a rural development model for Cameroon (CAMRD) it is a model which link rural development in Cameroon with the agricultural sector and agribusiness development. It is based on the synergy and complementarity between a developed agriculture industry and the rural area. The model has four key items:

Agrarian development: this model is associated with access to productive assets and increase income opportunities. The provision of infrastructure; especially access roads in rural areas to enhance agricultural output and minimize a cost of produce evacuation should be tackled more vigorously in the years ahead by the relevant government agency. Such investment in infrastructure are pro-poor and do generate off-farm activity for farmers to augment their incomes. Empirical analysis (HANAN 1998) shows substantial benefits from extending roads into remote rural areas; with much of these gains going to poorer households. The dominant view in the development economics literature is that growth in agriculture and rural non-agriculture complement and reinforces each other in raising the incomes of rural people.

Natural resource development: The rural population should be encouraged to diversify its activities to ensure increasing productivity. There should be gradual diversification of the rural economy into fisheries and forestry. These activities and related services such as distribution and transport will generate more employment and also create additional incomes for the rural population.

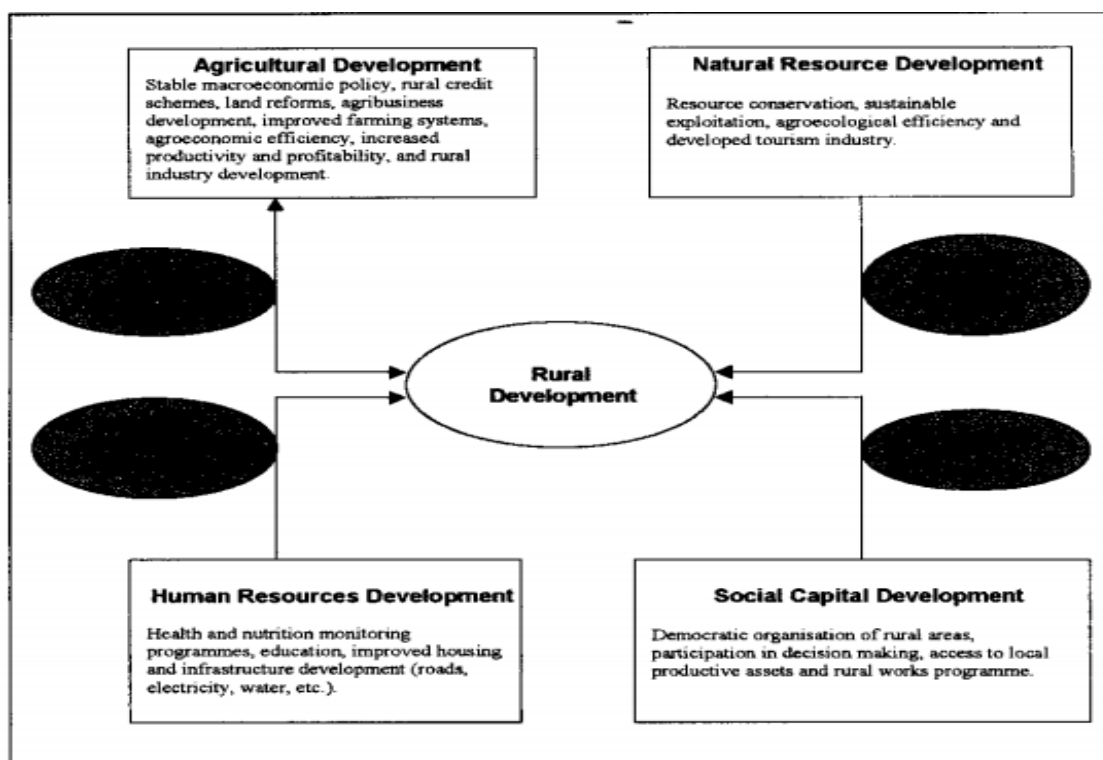


Fig 2.3: Rural Development Model (CAMRD) for Cameroon (source Molua, 2002)

Human capital development (education and quality of life): there must be an expansion and increased investment in people-centered development (i.e. education, health, and rural infrastructure). An essential resource to enable rural society to move from reducing their poverty by better food farming towards doing so by non-farm employment is education. Literacy and numeracy do help poor people to select and adopt new farm methods and non-farm activities better and faster. This is critical for the development of human resources, to increase labor input and hence agricultural output.

Social capital development: Rural inhabitants should be encouraged to form cooperative societies, especially producer and marketing co-operatives. Organizing farmers into co-operative activities would lead to sustained technological improvement and a steady increase in the use of modern inputs, better seeds, machinery, and an overall reduction of farm-gate costs. This will further enhance opportunities for increased levels of working capital, better infrastructure, and post-harvest facilities. Despite recent macroeconomic measures to ensure that agriculture is competitive, e.g. currency evaluation, the benefits have not accrued to small and rural farmers. This is not only because of inadequate investment in public's goods (education, health, research, and infrastructure) but also due to marketing constraints and the inherent inadequacies of an unregulated market system, which is well understood in developed countries. In the OECD (Organization for Economic Co-operation and

Development) nations, laws and institutions have been created against monopolies to protect consumers and the small business elaborated system of taxation and social security to protect the weak and assist the poor, especially the rural poor (AZIZ 2001).

2.1.6 Possible Constraints that hinders Growth of Rural Development

According to Ernest L. Molua (2002) some factors are considered as significant constraints to rural development in Cameroon: First, the falling real agricultural prices over the last two decades have led to complacency towards the farm sector and neglect of the countryside. Second, rural people have little political power and voice to push effectively for a development of rural areas. Also, the ruling urban elite pursue policies (excessive taxation thought overvalued exchange rates and export taxes) that disadvantage the agricultural sector – the primary source of employment for rural people. Third, public parietals dominated the agricultural sector for too long by controlling input and output markets and access to finance. These institutions have often been inefficient and unresponsive to changes in market condition. Fourth resources such as land capital and access to knowledge and technologies have been concentrated in the hand of urbanites. This has led to high unemployment, low income and low productivities among rural areas. These factors are thought to have impeded sustainable rural development. The implication is that action or set of measures that directly or indirectly hampers rural development retrogressively impact agricultural growth and development

Government's effort to improve on agriculture and the rural sector has been principally through the activities of the agriculture department and extension services of the Ministry of Agriculture. The objectives of the provincial Department of Agriculture are aimed at timely procurement and distribution of farm inputs to farmers as well as improvement in agro-processing and marketing of agricultural produce. In general, approaches adopted to realize the objectives of rural development in Cameroon have been through:

- (i) The provision of social amenities such as pipe water, health centers, roads and electricity to bridge the gap between rural and urban areas.
- (ii) Attempts to raise income by increasing their production capacity and ensuring that agricultural products are adequately exchanged in the market.

In this approach, incentives are given to rural farmer's extension services, construction of feeder roads, storage facilities, and cheap credits to farmers. Nonetheless, these efforts are not

reaching enough. This less important development of Cameroon is explicitly depicted with the use of some social indicators in **figure 2.4**.

Indicators	Estimates
SUB-SECTORS	
EDUCATION	
Adult literacy rate (%)	
Male	73.0
Female	53.0
HEALTH AND NUTRITION	
Population per physician (No.)	14,000
Population per nursing staff (No.)	6,000
Access to essential drugs (%)	66.0
Life expectancy at birth (years)	50.0
Daily calorie per capita (kilo joules)	2700
Under weight Children under 5 years (%)	22.0
POPULATION AND DEMOGRAPHY	
Estimated population	14,693.0
Infant mortality (per 1,000 live births)	95.0
Maternal mortality (per 1,000 live births)	430.0
Annual number of births (per 1,000)	573.0
Population growth rate (%)	2.1
WATER SUPPLY AND SANITATION	
Total access to safe water (%)	62.0
Urban access to safe water (%)	82.0
Rural access to safe water (%)	42.0
Total access to sanitation (%)	92.0
Urban access to sanitation (%)	99.0
Rural access to sanitation (%)	85.0
ECONOMIC INDICATORS	
GDP per capita (US\$, PPP)	1573.0
Population below poverty line (%)	40.0
Debt service 1999 (% of GDP)	6.0
Debt service 1999 (% of Export value)	24.3

Fig 2.4: Selected social indicators for Cameroon 1999 (Source: UNDP, 2001)

With about 16.4% of total government budget (2.8% of GNP) being spent on education and with an average literacy rate of 55% (UNDP, 2001), the educational sub-sector has been not too well, constrained partly by inadequate funding. Poor education levels have, no doubt, severely affected agricultural production in the country. Rural development inevitably must involve increase investment in human capital of the poor, which in addition to expanding their economic opportunities improve their quality of life directly. The poor state of health-care is indicated by: the poor health of the rural dwellers and inadequate provision of health

care facilities as well as the reduced supply of potable water in the countryside, are inimical to food and fiber production. This leads to low labor productivity. Also, infrastructure constraints in Cameroon's rural farmers are not involved at the design and planning stage of policies that affect their livelihood. Most agricultural policies have ignored the smaller farmers in agriculture and rural development. This has adversely affected the rate of particular innovation and practices. Neglecting farmers in farming policy formulation will always meet with implementation problems because users are not involved at the plans initiation stage (Molua 2002). Some defunct financial aid programs such as the Credit Agricole and FONADER (National Fund for Rural development) were hampered by inadequate and inefficient supervision inaccessibility of the fund to the rural farmers due to unattractive interest rates and inadequate collateral by rural entrepreneurs.

The overview of figure 2.4 shows that more effort is needed to improve asset ownership, productivity and reduce rural poverty. It is clear that rural Cameroon is characterized by some drawbacks to sustainable development. Development appears to be high skewed for the urban areas where the elite reside. All these factors have contributed to the estimated rural-urban migration.

Multiplier effects from a development of rural areas will enhance the sustained improvement of agriculture. The link between rural infrastructures and rural development is so high and almost complementary that rural agricultural development could even be defined as an integrated approach to food production, provision of physical, social and institutional infrastructure with an ultimate goal of bringing about quantitative and qualitative changes which ultimate in improved standard of living of rural population (Molua, 2002). This follows implicitly that rural development in agrarian economies such as Cameroon is synonymous to increase and improved agricultural production.

2.1.7 Some Rural Development Programs that enhances Growth

In an increasing effort to accelerate rural development, boost self-sufficiency in agriculture and improve rural livelihood, the government of Cameroon has established regional development authority schemes e.g. SOWEDA (Southwest Development Authority) and MIDENO (Northwest development Authority). The SOWEDA, for instance, has three main components: agricultural development, agricultural credit, and rural infrastructure. Overall, it attempts to improve agricultural production by making available better planting material, the reduction of post-harvest losses and by improved extensions. It also finances the regeneration of neglected export crop (cocoa and coffee) smallholder's plantation and the creation of new

ones. Similarly, MIDENO and its subsidiary the UNVDA (Upper Noun Valley Development Authority) operates in like manner in the Northwestern region of Cameroon. Field programs are funded. Fields programs are financed by the African Development Bank (ADB). While operating on the promise that farmers ought to play a leading role in fighting poverty, farmers are provided with fertilizers and credits to increase farm yields.

Some international non-governmental organizations (NGOs) are also engaged in attempts to solve rural development problems in Cameroon, e.g. HELVETAS (Swiss Association Co-operation). With financial assistance from the World Bank and the European Union, HELVETAS engages in roads construction and rehabilitation, concentrating on the improvement of farm-to-market roads in rural Cameroon. HELVETAS also provides borne water and others social services (schools and health center).It further supports different local NGOs as well as state institutions with the goals of solving pressing social and economic problems and enhancing their organizational and technical competence.

The Canadian Development Agency (CIDA) also sponsors projects in Cameroon. One of such projects ensures adequate water supply and sanitation in health districts of the Adamaoua province in North Cameroon. The goal is to contribute to poverty reduction by improving the living conditions of Cameroon's poorest rural populations. To maximize benefits it is expected regarding better conditions of life, the project's primary priority is to develop awareness around sustainable management of water supply systems and knowledge in sanitation management. It is expected that the project will lead to (a) sustainable improvement in assessing to drinking water in Adamaoua province, as measured by the rise in the number of drinking water supply systems and their ownership by the population; (b) the empowerment of the representative village and rural committees to manage and maintain water supply systems, and to awareness of sanitation issues.

Some successful rural development schemes could be identified in other developing countries. These could serve as lessons for Cameroon. For examples, Nigeria has over the past three decades introduced several programs aimed at the betterment of rural development scheme as the Directorate of Roads and Rural Infrastructure (DFRRI), headquarters in Lagos and branches in each state capital. The DFRRI had as its main tasks the opening up of the countryside with the active collaboration of the rural dwellers themselves, the provision of cottage industries, good feeder roads, rural housing and electricity, rural water supply, improved seedlings and plants for agricultural and rural mass literacy program (Eka 1994) in

Nigeria, efforts are also intensified to improve agriculture and the rural sector through other public programmes such as:

- (i) 1956 - The River Basin and Rural Development Authority,
- (ii) 1993 – The National Accelerated Food Production Programme,
- (iii) 1980 – The Green Revolution,
- (iv) 1976 – Operation Feed the Nation,
- (v) 1975 – The Agricultural Development Projects.

In some developed nations, the state has played a significant active role in the rural reduction by providing public goods, ensuring basic income for all people, building small-farm productivity by supplying the poor with schools and health, and safeguards against land inequality. This has not been the case in most developing countries, especially in SSA (Molua, 2002). In Cameroon state action is needed to shift resources toward programs geared at improving the wellbeing of the vulnerable and poor rural masses. Better health and education make employment growth more pro-poor, but the poor seldom afford them. The rural poor can benefit from the ongoing economic liberalization, but this will be much easier if they obtain the tools not just to reach markets but also to compete with them. This implies education, good advice linked to competitive credit, better rural roads, and means of transports storage.

2.1.8 Measures put in place to enhance rural development

Rural development is a many-sided process or a multi-dimensional process involving the totality of the rural man and his environment. In essence, development in this context entails developing the rural human person and as well as his environment. Emphasizing the aspect of human development as an essential part of rural development Mustapha (1989) notes that rural development implies a broad-based re-organization and mobilization of the rural masses, so as to enhance their capacity to be able to cope effectively with their daily tasks and with changes consequent upon it. It is perhaps, in this direction, that Ele (2006) posits that it is not enough to provide for the rural people; they should be enabled to develop themselves and their environment. In this direction, Olayiwola and Adeleye (2005) identified and classified the infrastructural development requirements of the rural areas to be necessary infrastructure which entails the availability of good roads, water (pipe-borne water), rural electricity, storage, and processing facilities etc., social infrastructure which is concerned

with health and schools, community centers, fire and security services and the institutionalized support which is involved with credit and financial institutions and agricultural research institutions to aid or enhance the economic activities and income of the rural population. The provision of these infrastructures will ensure integrated rural development that entails the promotion of rural productive activities, supportive human resource development, and enlargement of enabling rural infrastructure.

As such imperative measures for enhancing rural development have been put in place in many areas, specifically within the African continent where the government needs to place rural development at the top of the agenda. The national event in a realization of the fact that enhanced rural development is a prerequisite for meaningful and sustainable overall national development policies and programs. Further to this is the need for consistency in the execution of rural development programs. Indeed, implementation of appropriate rural development programs should continue irrespective of changes in government. Furthermore, the government again needs to de-emphasize total focus on the oil sector and to enhance agricultural development through addressing the needs of rural farmers with functional incentives. This is necessary as increased income from farming, which is the mainstay of the rural economy, improves the quality of the life of the rural dwellers. For instance, when farmers shift from the use of traditional tools like hoes and cutlasses to the use of modern tools like tractors, their production increases from subsistence to commercial quantities. Another dimension to this is the need for the establishment of agro – allied industries as growth or development drivers of the rural areas. Such agro – processing industries could be in the areas of rice milling and packaging, processing of cashew and groundnut products, cassava and cocoyam flour packaging, processing of pineapple, oranges, and paw-paw into fruit juice, etc.

The political representatives and leaders need to identify the development requirements of the rural areas with their constituencies. Indeed, they need to articulate such needs and ensure that they become integral parts of the government's development agenda and those policies or programs initiated to address them are monitored to ensure proper implementation. This is necessary for the fact that rural dwellers on their own, do not constitute any meaningful political force, and so development policy formulations generally ignore them. Again the political representatives like the federal legislators could enhance rural development by actually devoting part of their constituency development allowance to rural sector development. This is necessary as such display of commitment to rural development by the

political representatives will, in turn; trigger greater responsibility towards initiating rural development projects and programs on the side of the rural communities themselves.

There is equally the need not only to make adequately budgetary allocation for rural development but, very importantly, in ensuring that such allocated funds are judiciously used to execute rural development projects and programs. The need for monitoring and integrating of the various national, state and local government policies and programs on rural development and the co-ordination of the activities of all the rural development institutions. It is specifically suggested here that the federal government creates a national ministry that will have the mandate to ensure the integration and harmonization of the various strategies, policies activities and goals of all the pro-rural development institutions and agencies including private rural community initiatives and those of Non-governmental organizations (NGOs).

The local governments as well need to eschew corruption particularly at the leadership level and emphasize accountability, due process, prudence, and diligence. Again, the leadership needs to refocus firmly on its primary and statutory duty of administering local and rural development in an integrated and sustainable manner. It is expected that the democratization process in Nigeria will aid the coming into existence of visionary and purposeful leaderships in the local government system. Such responsible commands will be inclined to developing appropriate policies and programs that can be effectively implemented to address the rural underdevelopment needs. Indeed, with such commitment of government leadership at the state and federal government levels in Nigeria towards enhancing development in the countryside, the nation would significantly key into the millennium rural development goals and objectives.

Improving the rural development status is, therefore, a prerequisite for sustainable national growth and development. Realizing this enhancement depends on how the identified impediments to it are tackled. The adoption of the recommended measures, which are considered imperative in overcoming the difficulties, is expected to lead significantly to enhancement in the rural development process in the world most particular Africa. This, therefore, explains to us how far the NPTRD programed is willing to go to reduce poverty among rural development in lobo division.

2.2 Theoretical Framework

2.2.1 The Logic Model

The logic model (also known as a logical framework, a theory of change, or program matrix) is a tool used most often by managers and evaluators of projects/programs to evaluate the effectiveness of a project/program. Logic models are usually a graphical depiction of the logical relationships between the resources, activities, outputs and outcomes of a project (PMI, 2000). While there are many ways in which logic models can be presented, the underlying purpose of constructing a logic model is to assess the "if-then" (causal) relationships between the elements of the project; if the resources are available for a project, then the activities can be implemented. If the activities are implemented successfully then individual outputs and outcomes can be expected (McLaughlin and Jordan, 1999). Logic models are most often used in the evaluation stage of a program; they can, however, be used during planning and implementation.

A logic model is a vital tool for project management. Performance measures can be drawn from any of the steps. One of the key insights of the logic model is the importance of measuring final outcomes or results. Consequently, with this model, it is entirely possible to manage time and money (inputs), "spin the wheels" on work activities, ensuring that the produce outputs achieve the desired outcomes. It is these consequences (impacts, long-term results) that are the only justification for doing the work in the first place. For commercial organizations, issues relate to profit. For developmental organizations like the World Bank, issues relate to the successful achievement of mission or project/program goals. The logic model is illustrated in **Figure 2.5**

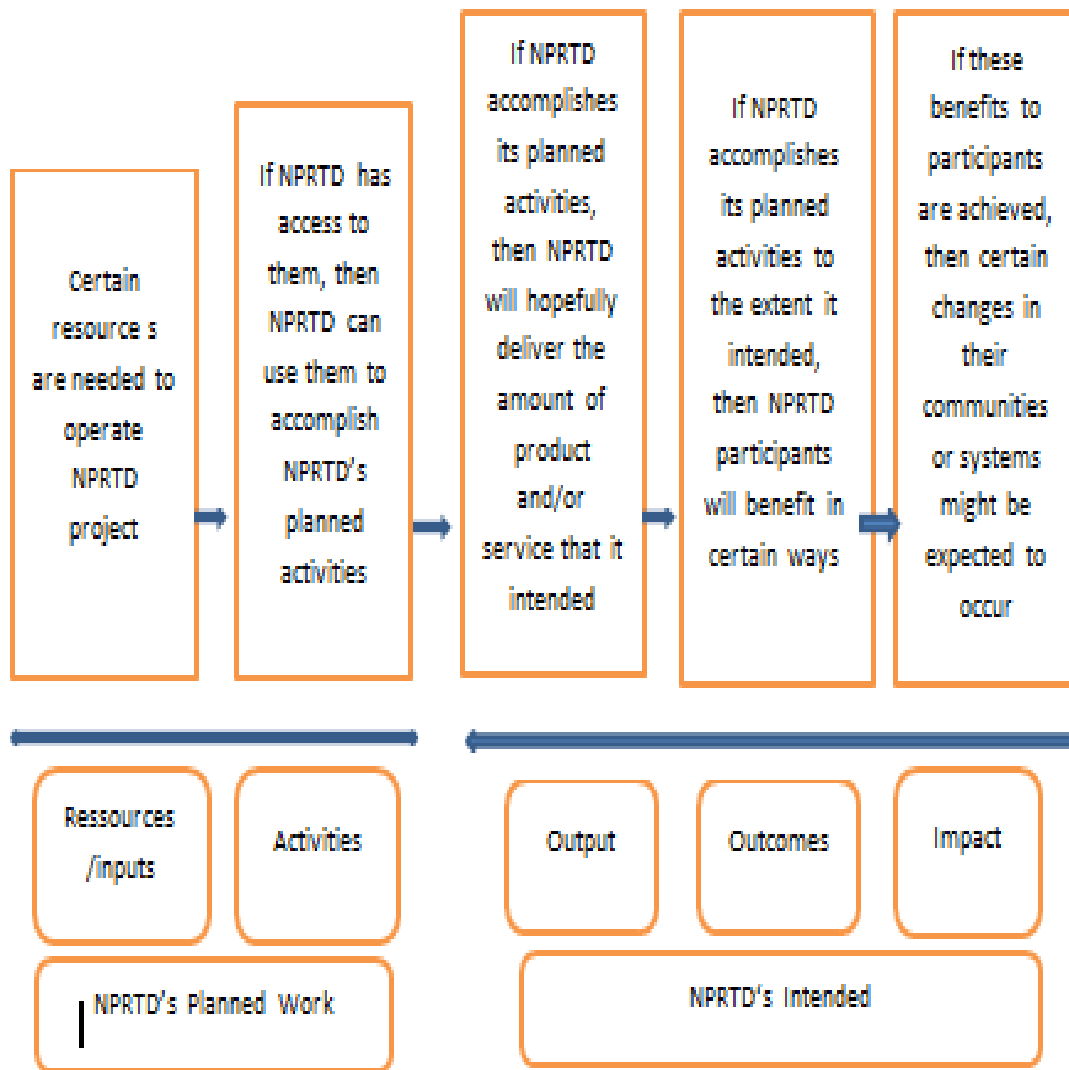


Figure 2.5: Logic Model Adapted from W.K Kellogg Foundation (2004)

One of the most important uses of the logic design is for program planning. Here it helps managers to plan with the end in mind, rather than just consider inputs (e.g. budgets, employees) or just the tasks that must be done. Project managers are advised to make use of a logic model in planning project activities. This will enable achieve the desired outcome. This model is of the essence to this study. In the case of this study, if NPRTD identifies and has access to the resources needed for the project, then these funds can be used to accomplish planned activities. This model lays emphasis on planning which is a strong managerial tool. If NPRTD performs its planned activities, then NPRTD will hopefully deliver the amount of product and service that it intended. If NPRTD performs its planned activities to the extent it intended, then NPRTD participants will benefit in particular ways. If these benefits to participants (the producer organizations working in partnership with NPRTD) are achieved, then certain changes in their communities or systems might be expected to occur. These

changes could be in the form of improved livelihood of the farmers via the increase in income of the farmers, increase production, infrastructural development and providing a market for their produce.

While logic models have been used in this way successfully, Millar et al. (1999) have suggested that following the above sequence, from the inputs through to the outcomes, could limit one's thinking to the existing activities, programs, and research questions. Instead, by using the logic model to focus on the intended outcomes of a particular program the questions change from

“what is being done?” To “what needs to be done?” Cognizance of role projects play in development; it is necessary for agricultural project managers in particular and project managers, in general, to make use of the logic model and other project management tool available in planning, implementing and evaluating their activities so as to ensure project success.

2.3 Gaps identified in the literature

From the literature reviewed above, it can be seen that a lot of research has been done in as regards to the impact of agricultural project management on rural development being the target of the research. Most of the research has being carried out on the challenge of agriculture for rural development, the place of an agricultural project in rural and socio-economic development, and the impact assessment of agriculture on the empowerment of women. Cognizant of the previously, one might be tempted to ask that, with the wealth of research carried out in developing countries in general and Cameroon in particular in this sphere, why then is agriculture and it's multiplying innovations not sufficiently significant to rural development? Rural development can, therefore, have an adequate performance when it has activities in the framework of a system. Petite empirical studies have been conducted at the micro-level on the subject matter. Therefore, the study opens new grounds in the agro-economic research sphere as it will dwells on socio-economic growth at the micro level. If the entire facets are managed to function properly as a whole, it will lead to increased productivity, income, employment and their corresponding contribution to economic growth.

Yes, a lot of research has been done. And yes again, a lot has been said about the agriculture, agricultural project, rural development and it the existing relationship between agriculture and rural development. This work, therefore, intends to fill this gap by evaluating the impact

of farm project management on rural development using the case of the National Program for Roots and Tubers Development -Minkoa in the Lobo basin.

CHAPTER THREE

METHODOLOGY OF THE STUDY

3.1 Model specification

To enhance rural development via the agricultural project, there is a simultaneous correlation between development strategies (coordination, planning, monitoring and control, capacity building and providing access to market) and control strategies (production, employment, income, capacity building, investment, saving and consumption, expansion of farms, etc.). Each variable may have an impact on the other so that it can ameliorate the standard condition of the rural community as simulated in the model below.

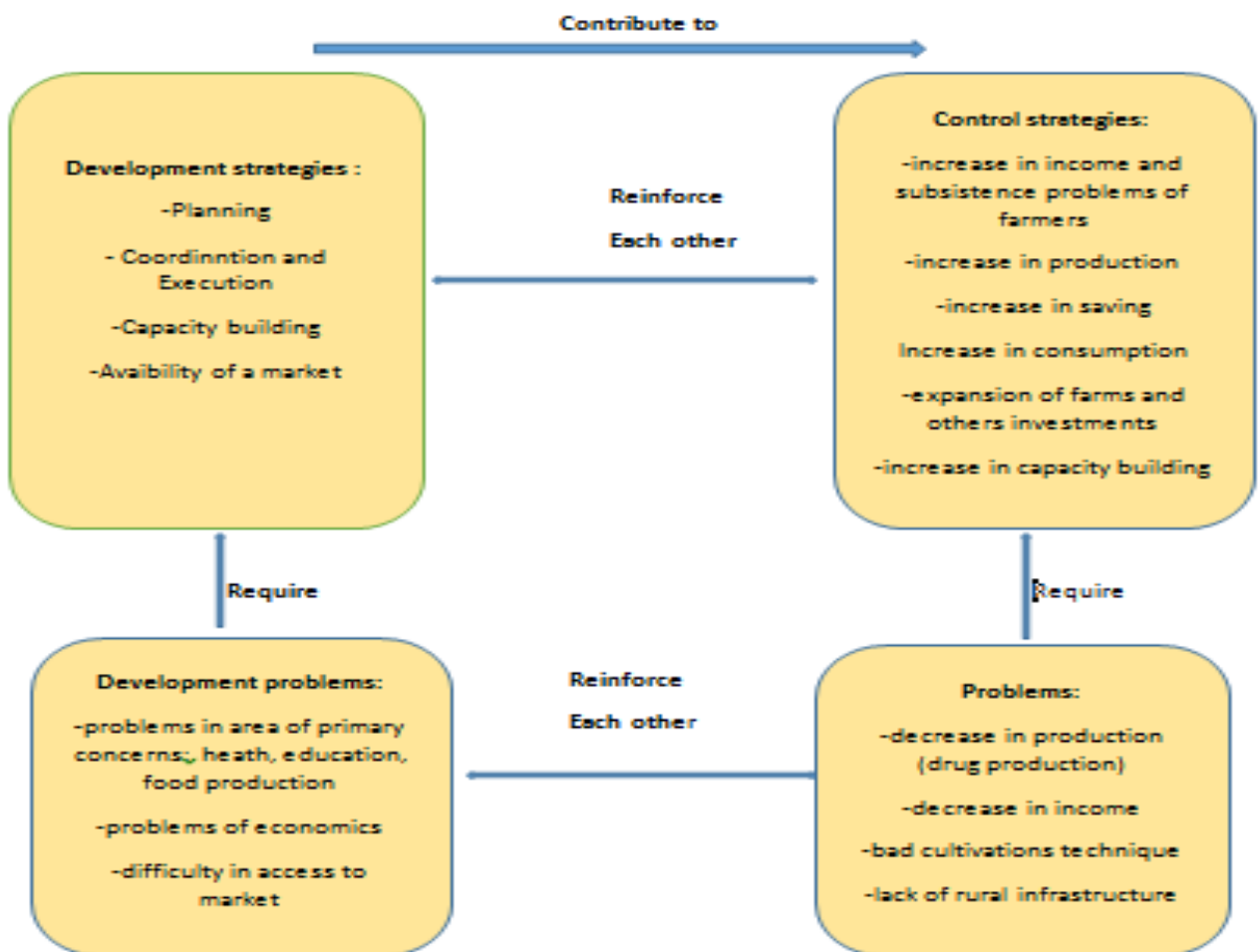


Figure 3.1: Model adapted from King 1998

3.2 Description and measurability of variables

The variables captured for analysis in this study are agricultural project management which is the independent variable and rural development the dependent variable.

The indicators selected to achieve rural development (the dependent variable) are production and income. To capture this, quantitative methods of data collection and interviews were used to collect the data both from the field and from NPRTD coordination office in Ebolowa. Other indicators such as investment and capacity building were equally used in the descriptive phase to qualify the indicators.

- Production was measured by getting data from the three value chain (Cassava, sweet potatoes, Yam) for the base and current year from the NPRTD coordination regional office of the South region of Cameroon.
- Income was measured by collecting information of all revenues generated as a result of the project at the base year (2013) and the current year (2015) from the concerned groups.
- The other socio-economic indicators of rural development (investment, expansion of farms and capacity building) were obtained through a well-structured questionnaire using the rating scale and the respondents were asked to select the indicator that the various management strategies (planning, coordination, and evaluation, availability of a market) have the most impact on their communities.

The indicators used to capture agricultural project management – the independent variable – are planning, coordination, and evaluation. The independent variable was obtained by collecting data with the use of questionnaires. The questions were tailored to find out if the selected groups for this study make use of the above management strategies and to assess whether these management strategies have an impact on the stated socio-economic indicators of rural development in Lobo division

3.3 Study Design

According to Cooper and Schindler (2006), research design refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring you will address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data. This study adopted the descriptive statistical methods in analyzing the findings. The analysis was done making use of descriptive statistics. Tables and bar chart were used to illustrate clearly the results gotten from the field. The most

important aspect of this design is that it provides an opportunity for an assessment impact of NPRTD on Rural Development in Lobo basin. The results were reported, and recommendations were made based solely on these results. The approach used the historical, descriptive, exploratory and quantitative analytical method.

3.4 Study Population

This entails the group of participants involved in this study. The members of the cooperative were selected from eight communities Minkoa, Nkolyem, Nkolmelen, Ovang, NGOs, Nkolmeyang, Ekekam III, and Nkongmessa. This is so because groups were selected on the criterion that they must have been working with NPRTD for at least two years. This enabled the researcher to be able to compare both years (one considered as a base year and the other current year), to ascertain the progression of the project from the base year to the current year. The target population is 111 farmers from the primary co-operatives of the eight communities selected who have benefited from the NPRTD project in Lobo basin and the officers who were working on behalf of the NPRTD project. Here the study population was drawn from two different groups: the NPRTD project management Coordinating Unit and the co-operatives working in partnership with the NPRTD project. The choice of the study population is based on assessing the impact of NPRTD on rural development in Lobo basin; both actors are indispensable.

3.5 Sampling Technique and Procedure

From the cooperatives that have benefitted from the NPRTD, eight communities were purposely selected - the study focused only on organizations which had worked with NPRTD for at least two years so as to be able to assess its impact on rural development because those without a complete package can't give a clear view of the picture. From the eight communities, 55 cooperatives were selected, and questionnaires were administered to two members per group received a total of 110. A total of 110 questionnaires were then distributed to the beneficiaries using the simple random sampling techniques. Out of these 110 surveys, all 110 was successfully collected, giving it a return rate of 100 % as presented in **Table 3.1**. The formulae below were used to calculate responses received from the questionnaires.

Table 3.1: Distribution of Questionnaires as a Percentage of the Total Sampled Population

Areas	No of Questionnaires	Total No. of respondents	%score of respondents
Minkoa	15	15	100
Nkolyem	15	15	100
Nkolmelen	15	15	100
Ovang	15	15	100
Ngoas	10	10	100
Nkolmeyang	12	12	100
Ekekam III	14	14	100
Nkongmessa	10	10	100
Total	106	106	100

Source: Field Work, 2015.

The questionnaires looked at the agricultural impact projects have on their production and income and their implications for the community. It also looked at the strategies used by NPRTD to attain its objectives, constraints and possible measures that can be used to enhance rural development.

Administration of Instruments: The researcher was assisted by one research assistant in the management of the questionnaires to the respondents in the study area. The research authorization was presented in each case to the respondents and the essence of the research was explained before the administration of questionnaires. The respondents completed the survey and handed them to the researcher and her assistant on the spot. This was to avoid non-refunding of questionnaires.

3.6 Data Collection and Sources of Data

This study made use of the collection of data from primary and secondary sources. The researcher made use of diverse techniques of evidence gathering and analysis. The methods employed in the data collection process involved a detail investigation of the various sources of information that are relevant to the study, and it was done in two phases. It adopted a field survey phase and a documentary phase. The documentary phase took the intensive library method of data collection which involves accessing published documents, journals, projects and other related unpublished articles, textbooks, as well as individual websites to source for relevant data. The above phases are classified into Primary and Secondary sources of data respectively.

3.6.1 Primary Sources

Primary data collection for this research went through three stages. The first phase involved a reconnaissance survey. This process enabled the researcher to appreciate the physical and socioeconomic realities of the study area. This phase also determined the ease with which further field studies and data collection were done and the data collection tools to be used. It was during the pilot survey that the measurability of the variables utilized in the study was noted. The second phase was designated for detailed field work. This process was continuous as the researcher from time to time, went to the area to obtain relevant information for the study. Field work was accompanied by the collection of raw data through the administration of questionnaires as well as the conducting of interviews. A total of 111 questionnaires were administered. The survey was given to an executive of the group (president or secretary). Also, the regional coordinator was interviewed so as to obtain information on the trend in productivity, production (agro output) from some farm organizations chosen for this study. This interview was also in a bid to find out the measures taken by NPRTD to encourage best agricultural practices in the Lobo in particular; the problems faced in managing this project and to what extent solutions have been provided to these problems. The third phase was designated for observations. This process gave room for the researcher to be able to draw valid conclusions based on what has been presented and analyzed with what is obtained in the field.

3.6.2 Secondary Sources of data

The secondary source of data was also used. This included reports from agricultural institutions and councils. Other published and unpublished Books, Articles, Journals, and

Dissertations were also used for literature review and conceptual framework. Finally, this study made use of internet sources for intensive literature review on issues related to the survey.

3.7 Difficulties Encountered in Data Collection

As mentioned earlier, the study made use of primary and secondary data. The collection of the data available was a daunting task regarding its reliability and consistency as well as sufficiency. Primary data was gotten primarily from the use of questionnaires. It was not easy to access these areas to get in contact with the farmers of Minkoa and Mkolyem subdivision due to bad roads. And also, before the researcher could get to the targeted location most of the farmers must have left which caused the scientist to either wait or miss another schedule group or postpone, and this led to more charges. Convincing the farmers to spare some of their time in filling the questionnaires was not much of an issue. Also, most of these target populations are not literates who have not been to school, so it was difficult for them to fill the questionnaire. The process of discussing the survey with the respondents before filling made it very arduous. Secondary data was also not easy to obtain since the institutions concerned could not provide information for a very long time. Where the data is available for some time, it was often interrupted by some periods of no records. This problem of paucity made it tough for sufficient data to be obtained.

3.8 Analytical Approach

The data collected were analyzed using social science statistical techniques. This study made use of descriptive (qualitative and quantitative) statistical techniques to analyze the data collected. The graphic tools employed for presentation and analysis include tables, bar graphs and pie charts.

3.9 Validation of Results

Validity refers to the accuracy of the instruments in measuring what the researcher intends to step. To attain and maintain validity, the questionnaire was given to friends who read and made useful criticisms. It was later submitted to my supervisor for further corrections and adjustment. He read through at a more professional level and made the necessary corrections. The items on the questionnaires were examined and confirmed by the supervisors as relevant to the objectives of the study, thereby ensuring the content validity of the instrument which makes research result acceptable.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the results obtained from the data collected on the impact of an agricultural project on rural development: the case of National Programme for Roots and Tubers Development in labor basin. It presents information about the descriptive analysis of the results as guided by the specific objectives on the age, family size, a level of education, their current activities length of practice of this activity.

4.1 Characteristics of respondents and their activities

4.1.1 Age group

The data on age of the total respondents sampled show that majority 51.9% were within the age group of 36-55 years as presented in **figure 4.1** below.

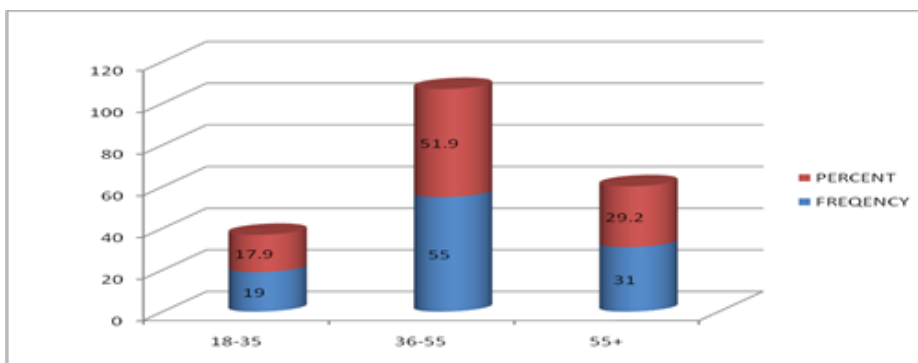


FIGURE 4.1.: Graphical Presentation of Respondents by Age Group (Source: Field Work, 2015)

4.1.2 Gender

A majority of the study population was women (85.8%), and this is presented in **figure 4.2** below

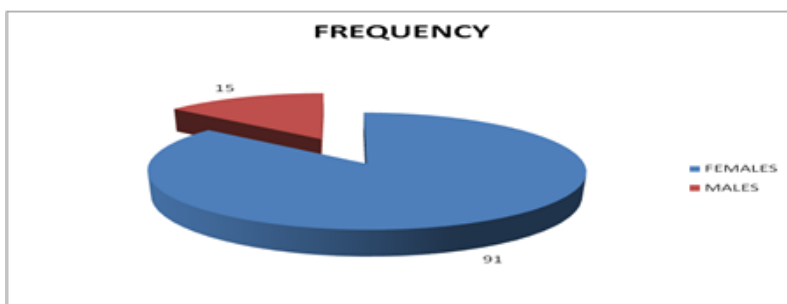


FIGURE 4.2: Graphical Presentation by Gender (Source: Field Work, 2015)

4.1.3 Marital status

A greater proportion of the respondents were married while the least proportion was divorced as presented in **figure 4.3** below.

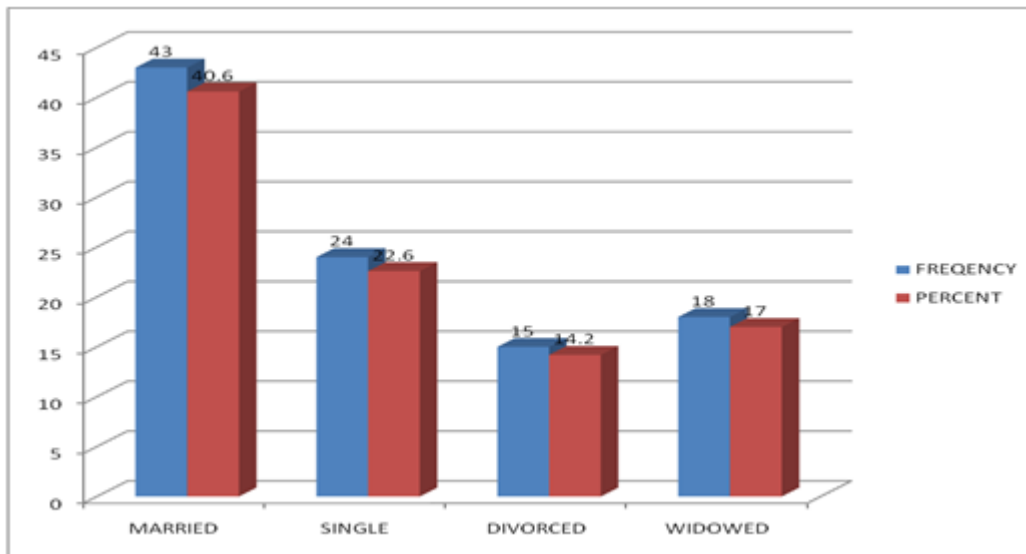


Figure 4.3: Graphical Presentation by Marital Status (Source: Field Work, 2015)

4.1.4 Family size

Most of the respondents had a family size between 0 and five children with the least proportion having a family size larger than 10. This is presented graphically in **figure 4.4** below.

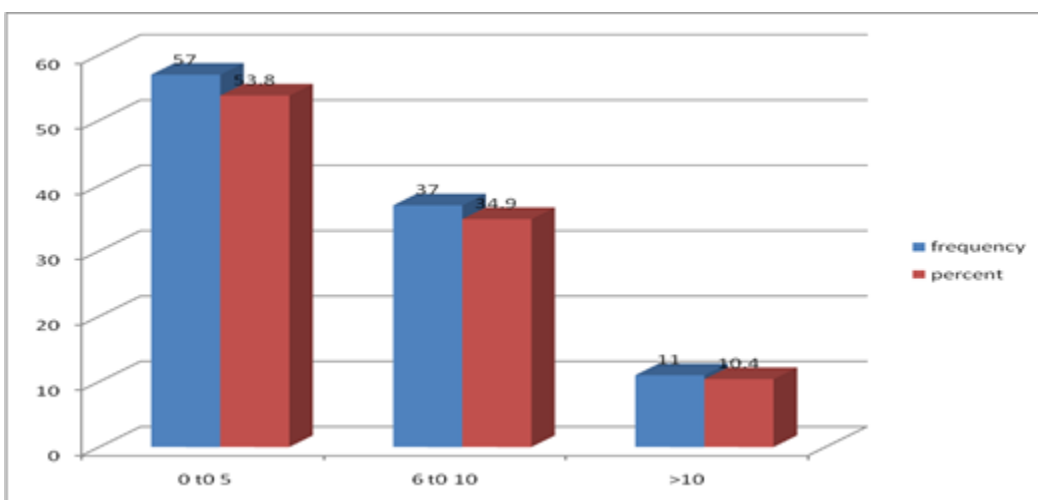


Figure 4.4: Graphical Presentation by Family Size (Source: Field Work, 2015)

4.1.5 Level of education

Most of the respondents had attended school only at the primary school with the least of them having attended university. This is graphically presented in **figure 4.5** below.

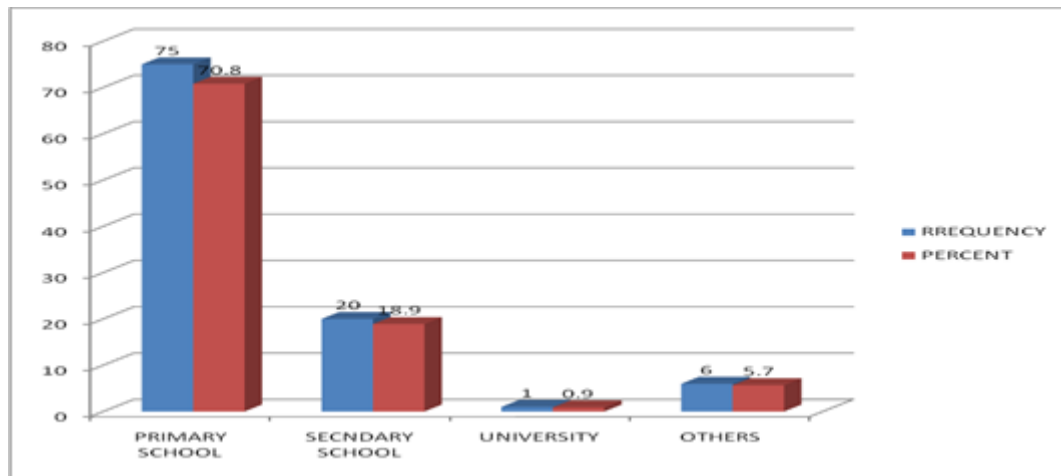


FIGURE 4.5: Graphical Presentation by Level of Education (Source: Field Work, 2015)

4.1.6 Engagement in these activities

Of the 106 respondents studied, a majority of them said they have been engaged in these activities for 6-10 years as graphically presented below.

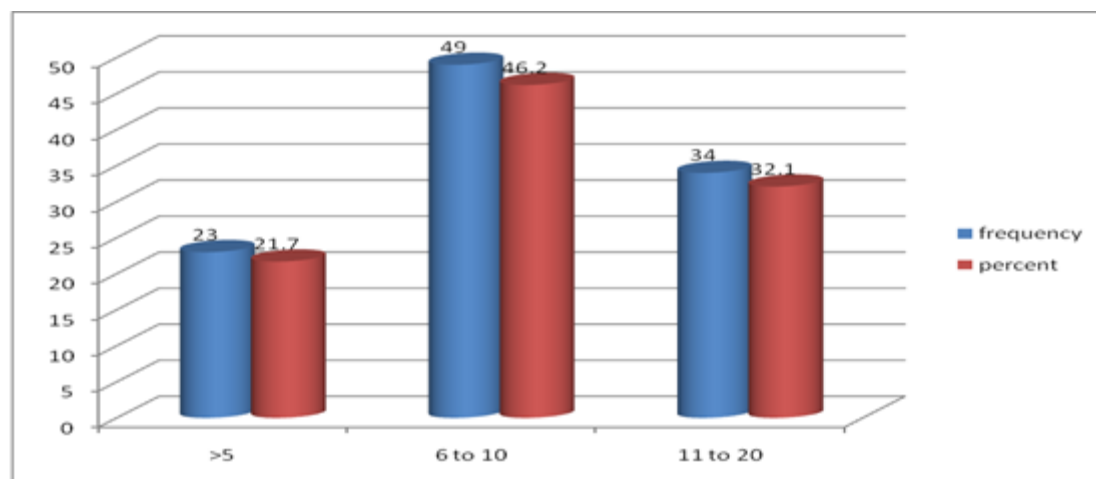


FIGURE 4.6: Graphical presentation by duration in activities (Source: Field Work, 2015)

4.1.7 Investment with the income from NPRTD

A majority of the respondents indicated that they have invested with the help of NPTRD project as shown in **Table 4.1** below.

Table 4.1: Distribution of Respondents according to the Investment with Income from NPRTD (Source: Field Work, 2015)

INVESTED WITH INCOME FROM NPRTD	FREQUENCY	PERCENT
MISSING	5	4.5
YES	90	83.48
NO	11	10.3
TOTAL	106	100.00

Also, 51.9% of the respondents indicated that they have expanded their businesses due to the income from the NPRTD project, 33% said that they have family investment, and 9.4 stated that they have new business line due to the revenue from the NPRTD project as presented below in **Table 4.2**.

Table 4.2: Distribution of Respondent according to the kind of investment with income from NPRTD (Source: Field Work, 2015)

KIND OF INVESTMENT	FREQUENCY	PERCENT
MISSING	6	5.7
FAMILY INVESTMENT	35	33.0
EXPANDED BUSINESS	55	51.9
NEW BUSINESS LINE	10	9.4
TOTAL	106	100.00

4.2 Results of the Study

4.2.1 Impact of NPRTD on production and income on the concerned groups in labor division

4.2.1.1 Impact of NPRTD projects on production

Before the NPRTD program, only 48.1% of the respondents were involved strictly with agricultural production but today after the implementation of the NPRTD project, the

proportion involved with agricultural output has risen to 73.6%. The results show that the NPRTD project significantly raised the level of Agricultural production from 48.1 % (95% CI: 38.58-57.96%) to 73.6% (65.21% - 81.99%) and (P=0.0001). This is graphically presented in **figure 4.7** below.

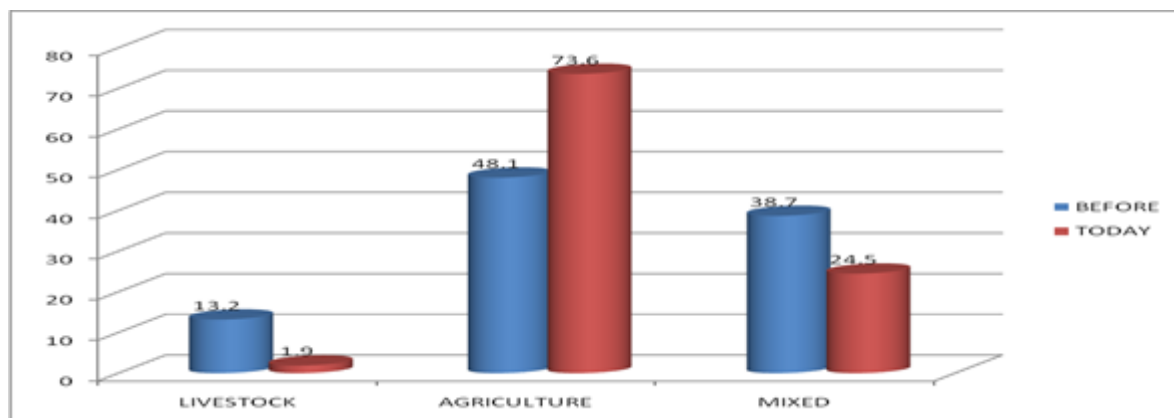


Figure 4.7: Graphical presentations by type of activity before and today (Source: Field Work, 2015)

4.2.1.2 Types of production

Table 4.3: Distribution of respondents conferring to what they produce (Source: Field Work, 2015)

KIND OF PRODUCTION	FREQUENCY	PERCENT
MISSING	7	6.7
SWEET POTATOES	35	33.0
CASSAVA	55	51.9
YAM	9	8.4
TOTAL	106	100.00

4.2.1.3 Impact of NPRTD projects on income

Before the implementation of the NPRTD program, 84% of the respondents said their income was average or below average and after the project implementation, 94.4% stated that they either experienced an increase in their earnings, savings or expenditure. This is shown in **Table 4.4** below.

Table 4.4: Distribution of Respondent according to the impact of NPRTD Project on Income (source: field work)

IMPACT OF THE NPRTD PROJECT ON FREQUENCY PERCENTAGE INCOME		
LEVEL OF INCOME BEFORE NPRTD PROJECT		
BELOW AVERAGE	39	36.8
AVERAGE	50	47.2
GOOD	15	14.2
BETTER	1	0.9
IMPACT ON INCOME AFTER PROJECT		
INCREASE IN INCOME	66	62.3
INCREASE IN SAVINGS	18	17.0
INCREASE IN EXPENDITURE	16	15.1

The above results indicate that the NPRTD project significantly raised the income of the groups. This is seen as 84% (95%CI: 77.02% - 90.98%) of the population indicated that their revenue was only average or below average before the NPRTD program, and 94.4% (90.02% - 98.78%) reported an increase in income, savings and expenditure as a result of the NPRTD project (P=0.0147).

4.2.2 Strategies used by NPRTD to achieve its Objectives and the Impact it has on the Community

4.2.2.1 Planning

A majority (89.6%) of the respondents agreed that the NPRTD has planned as one of its management strategies as shown in **figure 4.8** below.

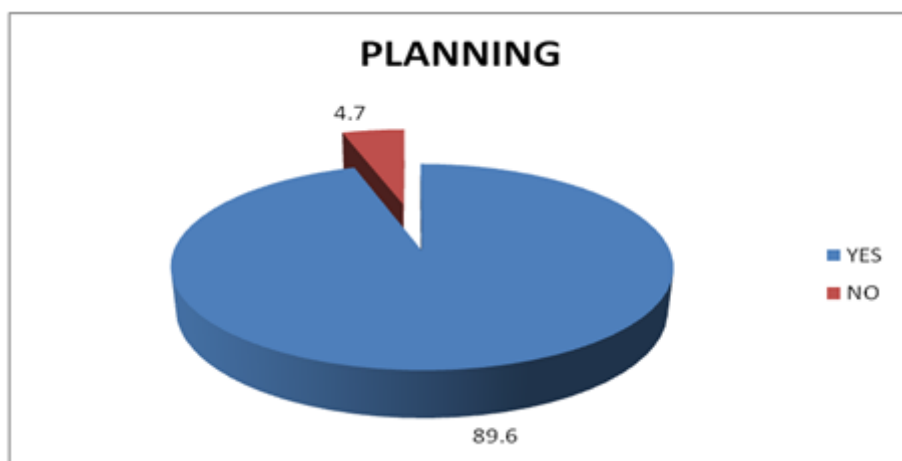


Figure 4.8: Graphical presentation of planning (source: field work, 2015)

When asked if planning had an impact on the community, a majority still affirmed that it does as shown graphically **figure 4.9** below.

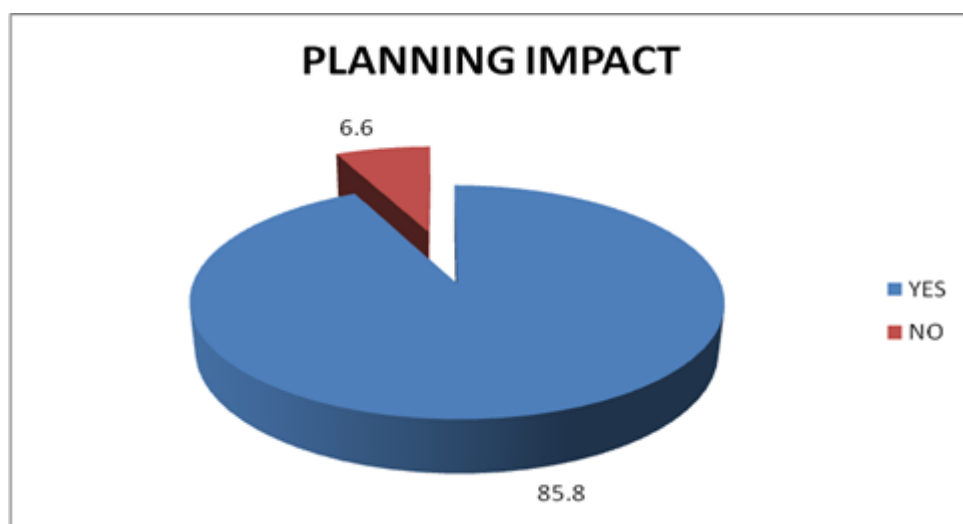


Figure 4.9: Graphical presentation of result of planning (source: field work, 2015)

Regarding the particular aspect of impact, 55.7% said plan has led to an increase in consumption as indicated in the **figure 4.10** below.

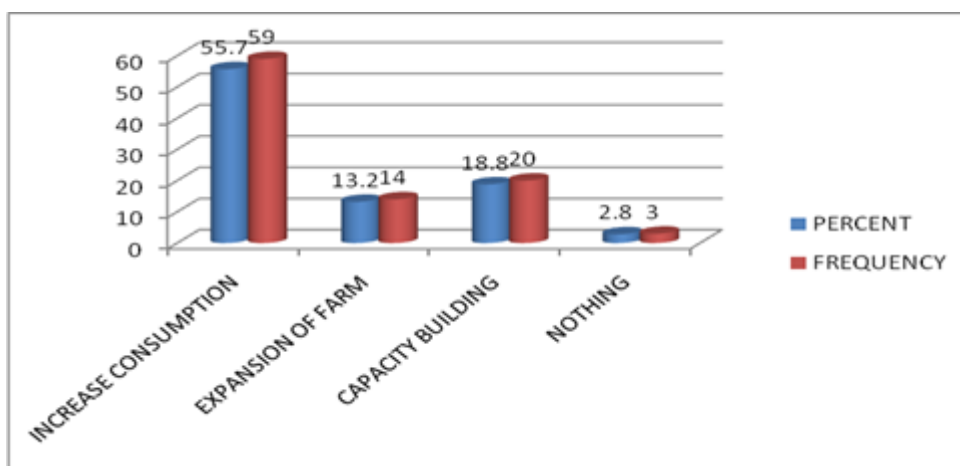


Figure 4.10: Graphical presentation of particular impact of planning (Source: Field Work, 2015)

4.2.2.2 Coordination and execution

When asked if the NPRTD project assists in coordination and implementation, a majority said yes as shown in the figure below. When asked if coordination and execution were impactful, a majority agreed. Regarding specific areas of impact, they cited increased consumption, increase savings, expansion of farm as shown below.

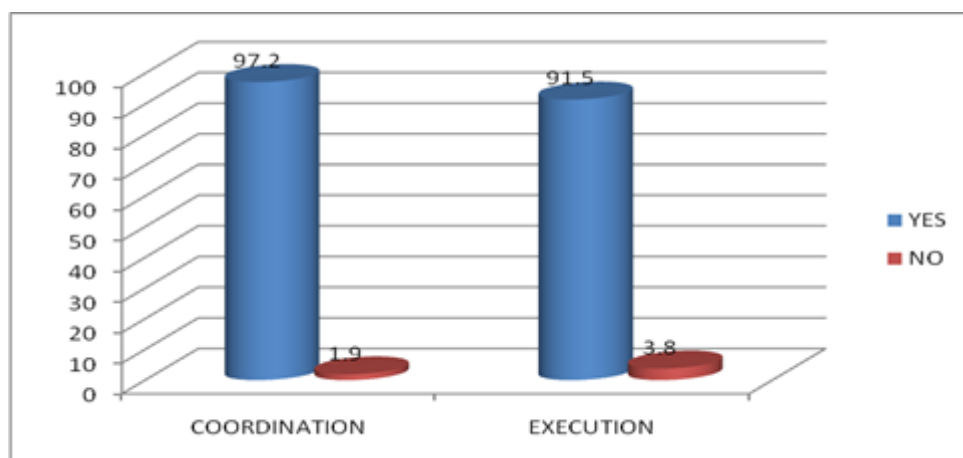


Figure 4.11: Graphical presentations of coordination and execution (Source: Field Work, 2015)

A majority of the respondents agreed that coordination and execution has a great impact on their community as shown below in figure 4.12.

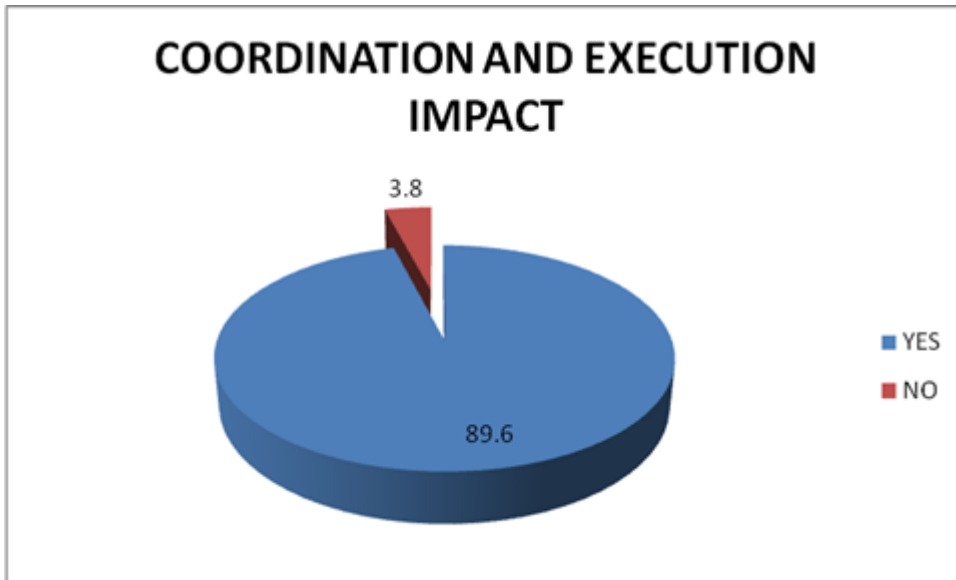


Figure 4.12: Graphical presentations of impact on coordination and implementation (Source: Field Work, 2015)

Regarding specific areas of impact, a majority of the respondents indicated increased consumption closely followed by increased savings as shown below in **figure 4.13**.

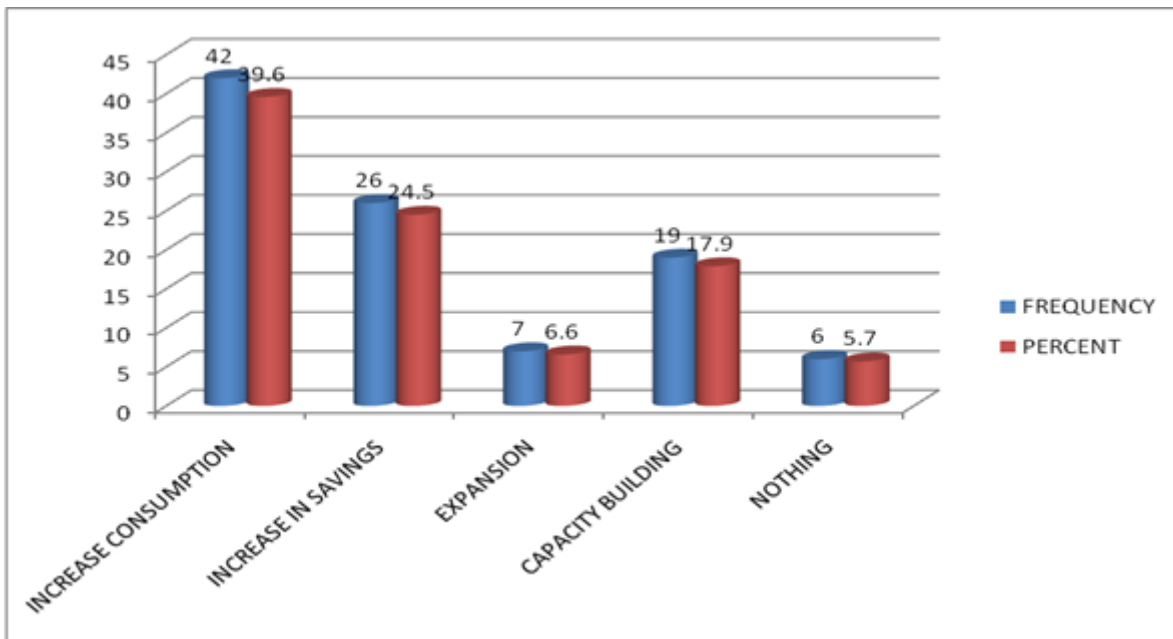


Figure 4.13: Graphical presentations of coordination and execution on specific areas of impact (Source: Field Work, 2015)

4.2.2.3 Evaluation

A majority of the respondents said evaluation was not included as part of the management strategies as shown in **figure 4.14** below.

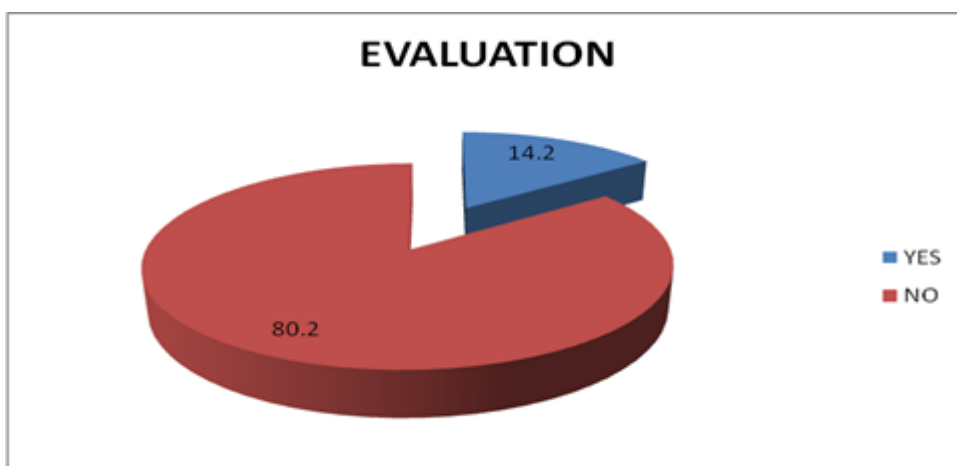


Figure 4.14: Graphical presentation of evaluation as a management strategy (Source: Field Work, 2015)

When asked if the assessment had an impact on the community, a majority still affirmed that it does not and impact on the success of the project as shown in **Table 4.5** below.

Table 4.5: Distribution of respondents conferring to contribution of evaluation to the success of the project (Source: Field Work, 2015)

	Frequency	Percent
MISSING	9	8.5
Valid YES	18	17.0
NO	79	74.5
Total	106	100.0

Regarding specific areas of impact, majority of the respondents indicated that evaluation had led to nothing closely followed by and expansion of farm as shown below in **Table 4.6**

Table 4.6: Distribution of respondents according to the impact of assessment on the success of the project (source: field work, 2015)

	Frequency	Percent
MISSING	16	15.1
Valid INCREASE		
CONSUMPTION	10	9.4
INCREASE IN SAVINGS	9	8.5
EXPANSION	33	31.1

HAS LED TO NOTHING	38	35.8
Total	106	100.0

4.2.2.4 Capacity building as a management technique

According to the responses of the respondents, 96.2% agreed that capacity building was one of the management strategies they were using as presented graphically below in figure 4.15.

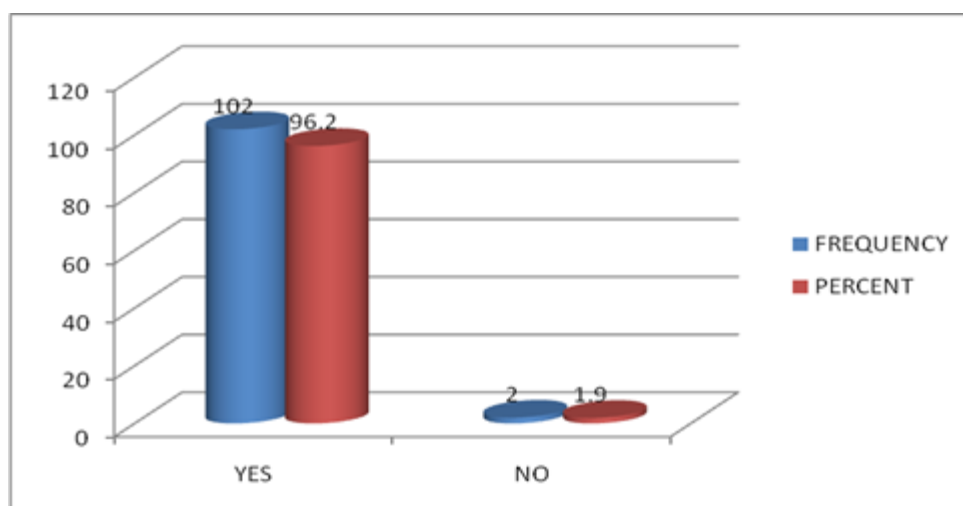


Figure 4.15: Graphical presentation by capacity building as management technique
(Source: Field Work, 2015)

When interviewed on the impact of the capacity building, a majority said it has increased their production as shown in **figure 4.16** below.

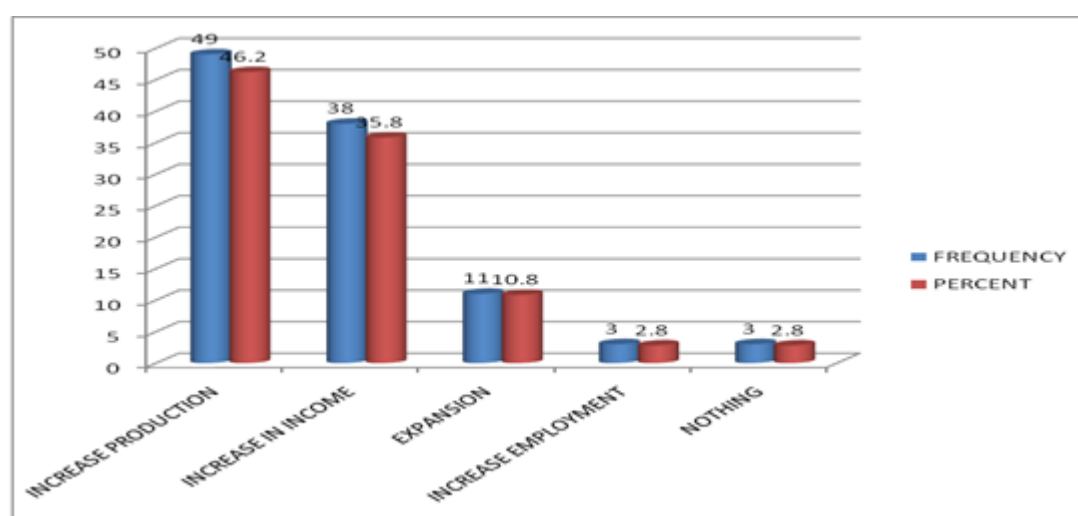


Figure 4.16: Graphical presentation by size of building as management technique
(Source: Field Work, 2015)

4.2.2.5 Impact of Market Availability in the Community

According to the respondents, their primary challenge was the absence of a market for their produce as a majority (61.35) said there was no market for their produce as shown in **figure 4.17** below.

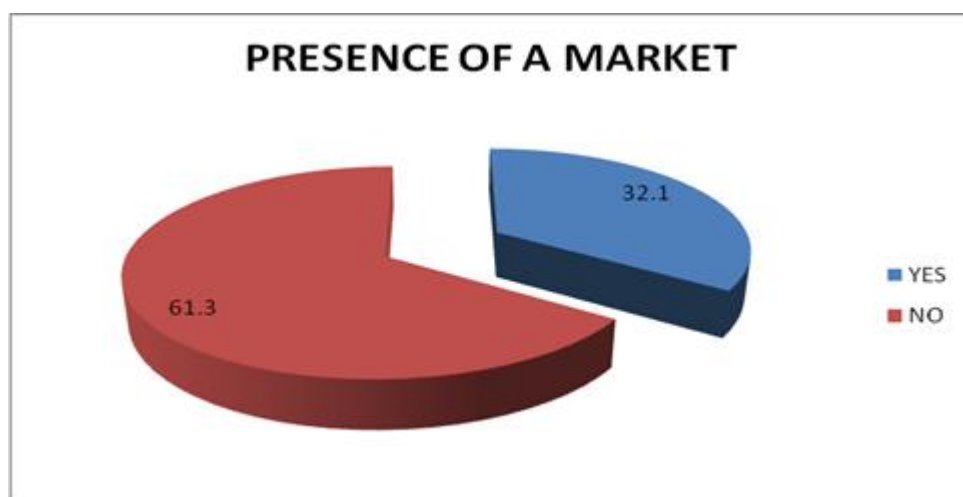


Figure 4.17: Graphical presentation of the presence of a market (Source: field work, 2015)

According to the respondents, 43.4% agreed that market contributed to the success of the project why 37.7% said it did not help as graphically shown below in **figure 4.15**.

Table 4.7: Distribution of respondents according to contribution of a market to the success of the project (source: field work, 2015)

	Frequency	Percent
MISSING	20	18.9
YES	45	43.4
NO	40	37.7
Total	106	100.0

When interviewed on the impact of a market on groups, a 32.1% said it has increased their income 17% said it has increased their production 13.2% it had led to nothing as shown in **Table 4.8** below.

Table 4.8: Distribution of respondents according to the impact of a market to the success of groups and community (source: field work, 2015)

	Frequency	Percent
MISSING	22	20.8
INCREASE IN PRODUCTION	18	17.0
INCREASE IN INCOME	34	32.1
EXPANSION	5	4.7
Valid INCREASE IN EMPLOYMENT	4	3.8
NOTHING	14	13.2
LOSS OF MONEY AND TIME	9	8.5
Total	106	100.0

4.2.3 Measures to improve on NPRTD

(65.1%) of the farmers expressed their satisfaction with the overall management of the project while (4.7%) of the farmers expressed their dissatisfaction with the overall management of NPRTD.

Table 4.9: Distribution of respondents conferring to their level of satisfaction (source: field work, 2015)

	Frequency	Percent
MISSING	5	4.7
VERY SATISFACTORY	26	24.5
SATISFACTORY	69	65.1
Valid DISSATISFACTORY	5	4.7
VERY DISSATISFACTORY	1	.9
Total	106	100.0

4.3 Implication of the Results

In the world in broad and in the third world, in particular, rural development has assumed the front-burner status since the early 1980s. This is because governments have realized that the goals of achieving accelerated national development particularly in the rural level which is the grassroots base, will remain elusive at least in the third world unless two main issues are considered: the requisite seriousness in the management of developmental projects; and the need to close the gap between theory and practice in this area (Moseley, 2003).

However, for the specific purposes of this study, an emphasis was laid on the former – management of development projects. Given the compound and diversified nature of activities in the agricultural sector, the project management approach has been a very useful instrument in the planning, implementation, coordination and control of the large size agriculture development projects. The importance of project management techniques become more important in the agricultural sector because of an ever-present high amount of risk and uncertainty associated with this industry.

The purpose of project management is to plan, organize and control the activities so that the projects are completed in the best possible manner within the prescribed time and budget, in spite of all the risks. This study aims to judge the impact of those project management strategies on rural development in Lobo Division. We look at the characteristics of farmers and the sort of activities that they are engaged in. From field observation, it was seen that most of the farmers are interested in agricultural and mixed production projects such as Palm, Cassava, poultry, and piggery. Some farmers said they chose cassava mill because they wanted a diversified form of production. They were already into animal production, and most of them had cassava farms thus choosing cassava mill as an activity was more of consideration for them. Also, It has been observed that before the NPRTD program, only 48.1% of the respondents were involved strictly with agricultural production but today after the implementation of the NPRTD project, the proportion involved with agricultural output has risen to 73.6%. The results show that the NPRTD project significantly raised the level of Agricultural production from 48.1 % to 73.6%. This is graphically presented in figure 4.7 below. And this has left a positive impact on the program on the farmer's welfares. NPRTD's program has an impact on the farmers and has contributed to reducing poverty.

The farmers in Lobo division accepted to have witnessed an increase in income and savings since their engagement with the NPRTD project. Table 4.4 illustrates the differences clearer. Before the implementation of the NPRTD program, 84% of the respondents said their income

was average or below average and after the project implementation, 94.4% stated that they either experienced an increase in their earnings, savings or expenditure. It shows the level of which the farmer's income was before and the level in which the revenues are now. It was realized that most of the farmers confessed to having had an increase in their savings and income as a result of the NPRTD project. Likewise, Doppler and Bothe (1999) showed that the adoption of Cassia same in rural Benin improved soil fertility and agricultural productivity and led to an increase in the overall family income. This demonstrates the influence of the project on production and revenue which shows an increase and thus helps in reducing poverty for many rural farming households. As a result of the increase in productivity and income due to the adoption of new technology (project) for bean growing in South-Benin, Allogni et al. (2008) found that food expenditure increased, and food security in households showed some improvement.

Most of the respondents also specified that they have expanded their businesses and have family investment due to the income from the NPRTD project as presented below in Table 4.2.

To assess the strategies used by NPRTD Project and its impact on the community; in the first place, there is the idea of planning which is used by most of the respondents as a management technique. Figure 4.8 illustrates this. Planning is the first and most vital function of the directorate. It is needed at every level of the Directorate. In the absence of planning, all the project activities will become meaningless. The importance of planning has increased all the more given the increasing size of projects and their complexities. According to Pujari (2013), planning, in the management world, is vital in that it helps to clarify, focus and research the project's development and prospects, it also provides a benchmark against which actual performance can be measured and reviewed.

Under the process of planning the objectives of the project are defined in straightforward and clear words. The obvious outcome is that all the farmers get direction, and all their efforts are focused towards a particular end. In this way, planning has a significant role in the attainment of the objectives of the project. Without proper planning, an excellent project could turn out a complete failure. Going by the results in figure 4.9, it can be observed that more than 50% of the respondents do plan their activities properly. This has led to resources being appropriately and efficiently used. It has also cut down the operating cost of some of the farmers. Consequently, this has resulted in an increase in the productivity, production, income and

their respective contributions to rural development in Lobo Division. Figure 4.10 illustrates the impact of planning activities on the groups and their communities.

The aspect of coordination was also raised. From field observation, it was seen that most of the groups are well structured with executives and a tender board. The officials of these groups help coordinate the activities of the group. This is illustrated in Figure 4.11. Most of the farmers believe that the survival of their groups until now is as a result of the coordinating effort of the respondent's executives and NPRTD. But on the contrary, some respondents indicated that to coordinate their activities very well they were facing financial difficulties as a result of poor coordination from NPRTD. Those respondents, in particular, were not satisfied with the management of the project. The impact of this coordination of group's activities is indicated in Figure 4.12. These results show that if group's activities are well coordinated, it would have a positive impact on the lives of the members in particular and the community in general. This would help in reducing rural poverty and fostering rural development. The next issue is that of monitoring and control.

The importance of surveillance and oversight of group's activities cannot be over-emphasized. From field observation, it was discovered that some of the farmer's monitor and control their activities whereas others do not. As a result of this little or no monitoring and control by some of these farmers has led to low productivity, production and income of the groups. When group activities are monitored and controlled regularly, the result is increased productivity, production and efficient use of resource and their respective contribution to rural development in Lobo Division. One principal beneficiary involved in output and marketing of cassava attested that the lack of effective monitoring and control has led to a reduction in production. They did not apply fertilizer on time and did not harvest the cassava on time. Consequently, most of the cassava got rotten in the farm. The impact is clearly illustrated in Table 4.6.

According to the respondents, 96.2% agreed that capacity building was one of the management strategies they were using as presented graphically in figure 4.15. When interviewed on the impact of capacity building, a majority said it has increased their production, for example, some of the farmers says this capability building helps them because with the support of the NPRTD they learnt how to do conservation and transformation of cassava, they learnt how to distinguished each variety of cassava and with all that knowledge others farmers said that it also has an expansion of their farm.

Field observation showed that most of the farmers don't have a market for their produce. This can be seen in figure 4.17. This is in line with one of the four components of NPRTD, which is to establish the economic partnership for the farmers. Agriculture has been twisted into an increasingly market-driven sector, as opposed to policy-driven as it was in the past, thus offering developing countries significant investment opportunities and economic benefits, given their growing food demand, potential for production expansion and comparative advantages in many global markets (OECD-FAO Agricultural Outlook 2013-2022). This is in line with two of the policy objectives of the agriculture-for-development agenda which forms a system diamond as postulated by the WDR, 2008 (cited in Kimengsi, 2011). These two policies are to improve market access and establish efficient value chains and to enhance smallholder competitiveness and facilitate market entry. NPRTD should improve the market access by making sure that the various value chains link demand in agricultural markets to smallholder producers and create jobs along the links and in agriculture. This will greatly enhance the capacity of these producer organizations to sell their products. Consequently, it will lead to an increase in income and a better livelihood of the groups.

From the preceding discussion points, it can be deduced that the very essence of proper project management in project success cannot be understated. As a consequence, it is imperative for project managers to set sound management strategies such as; proper coordination of team members and group's activities, proper planning, monitoring and control of group's activities, ensuring the efficient use of resources. Equally, providing a market for farmer's products will go a long way to meet the goals of the project.

From Table 4.7, it can be seen that to an extent, most of the farmers (65.1%) are satisfied with the management of NPRTD. The 4.7 % of the farmers who are not happy with the NPRTD management hold that NPRTD is not coordinating, monitoring and controlling the activities of the project as they ought to. They believe that NPRTD favors farmers than others. Some farmers indicated that they had done all that the NPRTD coordination unit required from them. But regrettably, two and the half years into the project, they have not received a franc from NPRTD. On the other hand, a certain number of the groups said that NPRTD has a good intention, but others stated that have bad intentions. They equally expressed many problems and difficulties faced by the management of NPRTD despite their level of satisfaction with the project. The majority of the farmers were of the opinion that the greatest problem they have with NPRTD is the disbursement of funds on time. Most often, the money gets to them far after they have purchased their day old chicks and are unable to feed them. Also, the farmers complained of an inadequate road network. One of the

components of NPRTD is to provide rural infrastructure. To an extent, they have not achieved this objective. Most of the farmers find it difficult getting their products to the market. As a result, those involved in cassava production indicated that some of the cassava gets rotten on the farm. This is in line with Fister (2013) who posits that for agricultural projects, the real challenge is getting crops to their final destination on nature's ticking clock.

The farmers equally indicated that another difficulty they faced with the project is that of too much documentation. Most of the farmers complained that they are not very educated, but most of the documents from NPRTD are too complex for them. It takes a long time for the groups to process the document and difficulties in justification of records. Frequently changing procedures and regulations by NPRTD have left the majority of the groups in confusion and frustration. Also, some of these groups attested to the fact that the farmer's executives do not efficiently manage their resources. This is as a result of little or no monitoring and control of these resources by some of these groups. This waste has put the farmers in a difficult situation and as a result, they are unable to sustain their activities. According to Allahyari (2009), for agriculture to be sustainable, agricultural resources must be properly managed. The agricultural sector in general and agricultural projects, in particular, will have adequate performance when it has activities in the framework of a system. If the entire facets are managed to function properly as a whole, it will lead to increased productivity and income and their corresponding contribution to socio-economic growth.

The high growth rate for the agriculture sector is critical for a fast overall improvement of the economy, macroeconomic constancy, employment generation, and decrease in rural poverty (Masood et. al, 2012). Though production has increased compared to the base year (2013), most of the groups have not yet met their objectives. They very much believe that if NPRTD respects the terms of the convention signed between them and the groups and disburse funds on schedule, they will attain their objectives. According to the World Bank, Rural Development must be clearly designed to increase production. It recognizes that improved food supplies and nutrition, together with essential services, such as health and education, not only directly improve the physical well-being and quality of life of the rural poor but can also indirectly enhance their productivity and their ability to contribute to the national income. In fact, the results obtained from the investigation show a clear progression of 94.4% of revenue level in two years. All said and done; it can be seen that the NPRTD management has an impact on rural development in Lobo Division.

The WDR (2008) noted that pursuing agriculture-for-development-agenda for a region implies defining what to do and how to do it. What to do require a policy framework which is rooted in the behavior of agents – producers and their organizations, the private sector in value chains and the state (cited in Kimengsi, 2011). Making agriculture more efficient to support sustainable growth requires a favorable social and political climate, adequate governance and sound macroeconomic fundamentals. It then requires the definition of an agenda for each type of region based on a combination of objectives. Cognizant of the importance of project management in project success, it is imperative for agricultural project managers in particular and project managers, in general, to take into consideration the best practices of project management in planning, organizing, and controlling project activities. This will enable the project to be finished on time and consequently, meet the goals of the project. For instance, the late disbursement of funds for farmers to prepare their farming activities is an aspect of management which needs to be improved upon. Therefore, the success of NPRTD depends on the way management is enforced.

4.4 Limitations of the Study

- Accessibility to the areas targeted was difficult since as the research was conducted at the peak of the rainy season. The weather posed so many problems to the researcher since as it made the respondents shy away from the appointments that had been booked, this thus make the data collection procedure to take longer than expected.
- Convincing the defendant to spare some of their time in filling the questionnaires was not much of an easy task to undertake.
- Most of these target populations are illiterates and where francophone which made it tough for them to fill the questionnaire. The process of discussing the survey with the respondents before filling made it very arduous. Secondary data was not also easy to obtain since the institutions concerned could not provide information for a very long time. Where the data is available for some time, it was often interrupted by some periods of no records. This problem of paucity made it tough for sufficient data to be obtained.
- Time constraint was another limitation that posed as a hindrance to the success of this work. The researcher had to blend internship and thesis writing at the same time making it difficult to catch up with other activities and the longer the data collection; the more costly it was for the researcher. The cost of the research was too high and solely dependent on the researcher with no assistance from the institution of the researcher and that of the respondent.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

This section gives a conclusion of the work and it equally recommends some measures that can be put in place to improve the management of the farmer's projects. Possible recommendations as well to the NPRTD program so as to improve on its goal and move towards achieving its objective by reducing poverty among rural development in Lobo Division in particular and Cameroon in general. It ends with suggested areas of further research not handled by the study.

5.1 Summary of Findings

During this study, the evaluation of the impact of agricultural project management on rural development in Lobo Division was assessed using NPRTD as a case study. After the field work and the analysis of the result had gathered from the field in chapter four, the following findings summarized below were made. From field observation, it was discovered that the majority of the study population was women (85.8%). It was equally observed that a greater proportion of the respondents were married while the least proportion was divorced. Most of the respondents had attended school only at the primary level with the least of them having attended university. Of the 106 respondents studied, a majority of them said they have been engaged in these activities for 6-10 years.

According to the objective one of the study which was to determine the impact of NPRTD Project management on production and income of concerned groups in Lobo Division a majority (89.6%) of the interviewees agreed that the NPRTD has planned as one of its management strategies. We look at the characteristics of farmers and the sort of activities that they are engaged in. From field observation, it was seen that most of the farmers are interested in agricultural and mixed production projects such as Palm, Cassava, poultry, and piggery. Also, It has been observed that before the NPRTD program, only 48.1% of the respondents were involved strictly with agricultural production but today after the implementation of the NPRTD project, the proportion involved with agricultural output has risen to 73.6%. The results show that the NPRTD project significantly raised the level of Agricultural production from 48.1 % to 73.6%. And this has left a positive impact on the

program on the farmer's welfares. NPRTD's program has an impact on the farmers and has contributed to reducing poverty.

Additionally, the farmers in Lobo division accepted to have witnessed an increase in income and savings since their engagement with the NPRTD project. Before the implementation of the NPRTD program, 84% of the respondents said their income was average or below average and after the project implementation, 94.4% stated that they either experienced an increase in their earnings, savings or expenditure. It shows the level of which the farmer's income was before and the level in which the revenues are now. Most of the respondents also indicated that they have expanded their businesses and had family investment due to the income from the NPRTD project.

According to the objective two of the study which was to assess the strategies used by NPRTD Project and its impact on the community. It was discovered that some of the farmer's monitor and control their activities whereas others do not. As a result of this little or no monitoring and control by some of these farmers has led to low productivity, production and income of the groups. Consequently, most of the cassava got rotten in the farm. According to the respondents, 96.2% agreed that capacity building was one of the management strategies they were using. Equally, Field observation showed that most of the farmers don't have a market for their produce.

Finally, according to the objective three of the study which was to suggest measures to improve on the effectiveness of NPRTD Project, it was found out from field observation that most of the farmers (65.1%) are satisfied with the management of NPRTD. The 4.7 % of the farmers who are not happy with the NPRTD management hold that NPRTD is not coordinating, monitoring and controlling the activities of the project as they ought to. They believe NPRTD favors some farmers than others. Some farmers indicated that they had done all that the NPRTD coordination unit required from them. Cognizant of the importance of project management in project success, it is imperative for agricultural project managers in particular and project managers, in general, to take into consideration the best practices of project management in planning, organizing, and controlling project activities. This will enable the project to be finished on time and consequently, meet the goals of the project. For instance, the late disbursement of funds for farmers to prepare their farming activities is an aspect of management which needs to be improved upon.

5.2 Conclusion

From the points above, it can be observed that NPRTD to an extent is encouraging women to be involved in mechanized agriculture in Lobo Division. Most of the groups attested that they were satisfied with the overall management of NPRTD and that the administration of this project has an impact on rural development in Lobo Division. As a result, it can be declared that NPRTD has a positive impact on rural development in Lobo Division.

The management of the NPRTD has a positive impact on production and income situation of the beneficiaries by increasing their production and their income in making them have an expansion of their farm, family investment, and a creation of new line for business as well as raising their capacity building.

However, unsatisfactory issues were also raised at the level of evaluation and controlling the activities of the project. Some respondents indicated that they had done that entire NPRTD coordination unit required from them. But regrettably, two and the half years into the project, there is no more NPRTD unit to control what is there on the field at the end of the project. Also, the farmers were complaining that there were no markets to sell their products; they were obligated to go far to Yaoundé to sell their produce. This has led to increasing the traveling cost and subsequent waste of money.

5.3 Recommendations

Cognizant of the fact that most of these agricultural projects are plagued with various problems and NPRTD is no exception; this study raised some questions which need to be attended to. The following recommendations will help improve the management of NPRTD in particular and agricultural projects in general.

❖ Recommendations to NPRTD

- NPRTD management should accurately define each major task, estimate the time and resources required, and provide a framework for management review for all the groups working in partnership with NPRTD. This will help them to improve on time management.
- NPRTD management should improve on their monitoring and control mechanisms. It should be continuously performed throughout the life of the project as this will help them better oversee all the tasks and matrices necessary to ensure that the approved and authorized projects are within scope, time, and budget. Also, it will enable these projects to proceed with minimal risk. Moreover, it will help them to compare actual performance with planned

performance at each stage of the project and to take corrective action to yield the desired outcome when significant differences exist.

- NPRTD management should improve on their planning strategy. They are stimulated to make use of the logic model. They should equally ensure that while planning the activities, these should be aligned with the objectives. NPRTD coordination unit should respect the terms of the convention they signed with the groups and disburse funds according to schedule. No project can survive without money. Equally, a well-planned and coordinated project can fail if funds required to execute and implement the plan are not disbursed on time. Timely disbursement of funds and other farm inputs will improve the productivity of the groups and as a consequence, enhance rural development.
- The executives of the community initiative groups working with the project should be trained on how to manage their teams effectively and efficiently and also on capacity building techniques. This will help the executives to manage their teams better and as a result, will enhance the fight against rural poverty and improve rural development.
- Since the project was concentrated on cassava rather than roots and tubers as it was a plan, it will be preferable to come with a project base only on cassava.
- The availability of a market should be improved upon. NPRTD should establish the more economic partnership for the groups so that they can actually sell their produce. This will reduce the quantity of cassava that gets sick before going to the market.
- The farm-to-market road network should be improved upon. This is one of the four components of the NPRTD project (to create rural roads) but has achieved tiny in this domain. For these farmers to get their produce to the market on nature's ticking clock, they need good farm-to-market roads.
- More females and youth oriented groups should be encouraged to participate in mechanized agriculture in Lobo Division instead of subsistent local farming.

❖ **Recommendations to CIGs**

- Women farmers involved in the project should try as much as possible to encourage their fellow farmers who are not registered to come and register so that they can all benefit. This micro-credit assistance is not only for a particular group of people but the interest of all farmers.

- Furthermore, farmers should be encouraged to involve more in group sales of farm purchase and products. That way they will be able to gain more income and can even come as one to determine their prices to the buyers.

❖ **Recommendation to the Government**

- The government should try to create an enabling environment for micro enterprises by making necessary financial reforms and formulating appropriate policies.
- And last but not least they should try to ensure more economic growth and channel more resources to human development.

5.4 Suggested Areas for Further Research

- ✓ The same study could be conducted in Lobo Division involving other socio-economic indicators which were not captured in this work such as investment, infrastructural development and credit schemes.
- ✓ The study should be carried out in different areas of the region or even the entire region to ascertain the impact on a larger scale.
- ✓ A comparative study on the contribution of NPRTD and other similar projects in Lobo Division could be conducted, to determine their relative contributions to rural development.

REFERENCES

- ❖ Allahyari, M.S. (2009): Agricultural Sustainability: Implications for extension system.
- ❖ Allogni, W.N., O.N. Coulibaly, A.N. Honlonkou, 2008: Impact des nouvelles technologies de la culture de niébé sur le revenu et les dépenses des ménages agricoles au Bénin. *Annales des Sciences Agronomiques du Bénin*, Vol. 10, N°2, pp. 179-192.
- ❖ AZIZ, S., 2001, ‘‘Why million People are still Hungry.’’ Paper Presented in vision 2020: International Conference Organized for All by the International Food Policy Research Institute (IFPRI), September 4-6, 2001, Bonn, Germany.
- ❖ Brunch, R., 2001: Enabling long-term Impact of Soil Conservation Through Farmer-Driven Extension. In: ‘‘Sustaining the Global Farm’’; Stott, D. E.; Mohtar, R. H.; Steinhardt, G. C. (eds.), Purdue University, pp. 80-92.
- ❖ Byerlee, D. (2005). Agriculture, Rural Development, and Pro-poor Growth: Country experiences in the Post-Reform Era. The World Bank: Agriculture Rural Development Discussion Paper 21.
- ❖ Chambers, R. (1983). Rural Development: Putting the last first. Routledge; 1 ed. ISBN-10:0582644437.
- ❖ Clayton, A., Oakley, P., Pratt, B., 1998: Empowering People: A Guide to Participation, UNDP, New York, 58 p.
- ❖ Cooper R.D and Schindler P. S (2006): Business Research Methods. Pp71. McGraw-Hill/Irwin.
- ❖ ISBN: 0-07-297923-2. Development: Electronic Journal of Agriculture and Development Economics. Vol 4, No. 1, pp.47-65.
- ❖ Dewbre and Battisiti, (2008): ‘‘Agricultural progress in Cameroon, Ghana and Mali. Why it happened and How to Sustain it’’. OECD Food, Agriculture and Fisheries. Working Paper No. 9.
- ❖ Diao, X. (2006). ‘‘The role of agriculture in development: implications for Sub-Saharan Africa,’’ DSGD discussion papers 29, International Food Policy Research Institute (IFPRI).
- ❖ EKA, V.C., 1994. ‘DFRI: A Nigerian Experiment in Rural Development,’ LEAD International News letter-Issues of Rural Development 1994, No.3, pp.4-5.
- ❖ Ele, C. (2006) Evangelization through Rural Development. Nsukka: Great AP Publishers Ltd.

- ❖ Doppler, W., Bothe, M., 1999: Gender Modelling and Impact Assessment of Innovations: Results from Benin. In: Farmers and Scientists in a Changing Environment: Assessing Research in West Africa. Renard, G.; Krieg, S.; Lawrence P.; von Oppen, M. (Eds: Margraf Verlag, Weikersheim), Germany, pp. 369-386.
- ❖ Fister, S. (2013): For agricultural projects to bear fruits, project managers must take a system approach.
- ❖ Godoy, D.C. and Dewbre, J. (2010). “Economic Importance of Agriculture for Sustainable Development and Poverty Reduction: The Case Study of Vietnam.”
- ❖ Green, W. (2003): Econometric Analysis. Prentice Hall, New Jersey.
- ❖ HANAN, G.J., 1998, ‘‘Access to Markets and the Benefits of Rural Roads,’’ Working Paper No.2028, World Bank, Washington, D.C.
- ❖ Hazell, P. (2007). Transformations in Agriculture and their Implications for Rural Development.
- ❖ GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit), 2008: Turning attention towards results: How GTZ is building up its impact evaluation capacity. 3rd Edition. Eschborn, Deutschland, 30 p.
- ❖ IFPRI (International Food Research Institute), 2001: Current Food Policy Issues in Bangladesh. Advisory Notes to the Secretary of Food. Volume V. International Food Research Institute, Washington DC, USA, 35 p.
- ❖ Howes N. R. (2001). Modern Project Management Successfully Integrating Project Management Knowledge Areas and Processes. ISBN: 0-8144-0632-7.
- ❖ Kellogg, W. K Foundation (1998). W. K. Kellogg Foundation Evaluation Handbook.
- ❖ Kerr, J., Kolavalli, S., 1999: Impact of Agricultural Research on Poverty Alleviation: Conceptual Framework with Illustration from the Literature. International Food Policy Research Institute. Washington, D.C., 215 p.
- ❖ Kimengsi J. N. and Tosam, J. N (2013): Climate Variability and Cocoa Production in Meme Division of Cameroon: Agricultural Development Policy Options. Greener Journal of Agricultural Sciences, Volume 3. Number 8, pp 606-617, August 2013. ISSN: 2276- 7770.
- ❖ Kimengsi. J.N. (2011): Spatial Economic Disparity and Implications for Development in the South West Region of Cameroon. Unpublished PhD Thesis, Department of Geography, University of Buea.
- ❖ Kimengsi. J.N. (2013): Enhancing Community Participation for Rural Development in Central Ejagham Region of Cameroon: Challenges and Prospects. Journal of regional development Studies, a publication of the United Nations Centre for Regional Development (UNCRD), Nairobi Kenya (forthcoming).

- ❖ Kirkpatrick, C., 1994: New development in project appraisal in developing countries. In: Journal of International Development, 6(1) 1-5.
- ❖ Lewis, P.S. et al. (2007). Management: Challenges for Tomorrow's Leaders. South-Western. ISBN: 0-324-30259-2.
- ❖ Linn, J. F. (2012). "Scaling up in Agriculture, Rural Development, and Nutrition. International Food Policy Research Institut."
- ❖ Malcolm, B. (2005): "The Farming Game: Agricultural Management and Marketing."
- ❖ Masood, A., et al (2012): Causes of Low Agricultural Output and Impact on Socio-economic Status of Farmers: A Case Study of Rural Potohar in Pakistan.
- ❖ McLaughlin, J. A. and Jordan, G. B, (1999). Logic Models: A Tool for Telling Your Program's Performance Story.
- ❖ McAllister, K., 1999: Understanding Participation: Monitoring and Evaluating Process, Outputs and Outcomes, IDRC, Ottawa, 55 p.
- ❖ Millar et al. (1999). Logic models: a systems tool for performance management. Evaluation and Program Planning.
- ❖ Molua, E.L. and Lambi, C. M. (2007): The Economic Impact of Climate Change on Agriculture in Cameroon, Volume 1 of 1.
- ❖ Moseley, Malcolm J. (2003). Rural development: principles and practice (1. publ. Ed.). London: SAGE. p. 5. ISBN 0-7619-4766-3.
- ❖ Mustapha, B. (1989) "Local Government as an Instrument of Social Mobilization and Rural Development for self-Reliance: The Lagos State Experience" Paper presented at National conference on Social Mobilization and Community Development held at Alvan Ikoka college of Education, Owerri, Imo State Jan, 12 – 13 th.
- ❖ Nagarajan, K. (2012): Project Management. New Age International. ISBN: 978-8122433241.
- ❖ OECD (2006). Promoting Pro-Poor Growth in Agriculture. DAC Guidelines and Reference Series: A DAC Reference Document.
- ❖ Ogen, O. (2007): The Agricultural Sector and Nigeria's Development: Comparative Perspectives from the Brazilian Agro-Industrial Economy, 1960-1995.
- ❖ Olayiwola, L. and Adeleye, O. (2005) "Rural Infrastructure Development in Nigeria: Between
- ❖ 1960 and 1970 Problem and challenges". Journal of Social Science, Vol. 11 No 2. Pp 91 – 96.
- ❖ PMI, (2000): A Guide to the Project Management Body of Knowledge (PMBOK® Guide).PMI

- ❖ Publishing Division, Forty Colonial Square, Sylva, North Carolina 28779 USA. ISBN 1 -880410-22-2
- ❖ Ralph L. Kleim and Irwin S. Ludin (1998), Project Management Practitioner's Handbook
- ❖ Schultz, T.W. (1980). "Nobel Lecture: The Economics of Being Poor," Journal of Political Economy 88: 639-651
- ❖ Singh, K. (2009). Rural Development: Principles, Policies and Management. SAGE Publications Pvt.Ltd. ISBN: 9788178299266.
- ❖ Stamoulis, (2007): Rural Development and Poverty Reduction: Is Agriculture Still the Key?
- ❖ Stewart, R. (2000) Welcome Address" Proceedings of the 7th World Sugar Farmers.
- ❖ UNDP, 2001, Human Development Report 2001. United Nations Development Programme, New York. Oxford University Press.
- ❖ Uphoff, N., 1989: Participatory Self-Evaluation of P.P.P. Group and Inter-Group Association Performance: A Field Methodology, FAO, Rome, Italia, 47 p.
- ❖ Ward, Neil; Brown, David L. (1 December 2009). "Placing the Rural in Regional Development". Regional Studies 43 (10): 1237–1244. doi: 10.1080/00343400903234696.
- ❖ Watson, T (1994): In search of management: culture, chaos and control in managerial work. Routledge, New York.
- ❖ Winkelmann, D.L., 1998: CGIAR activities and goals: Tracing the connections. Washington, D.C.: CGIAR Secretariat, the World Bank, 120 p.
- ❖ World Development Report (2008): Agriculture for Development. World Bank, Washington DC.



PAN AFRICAN INSTITUTE FOR DEVELOPMENT – WEST AFRICA (PAID-WA), BUEA

QUESTIONNAIRE

I am Defo Mela michèle, a final year Masters student from the Department of Development Studies, specializing in Regional Planning & Project Management at the Pan African Institute for Development – West Africa (PAID-WA) Buea. As part of the requirements for the completion of my programme, I am carrying out a research on the topic: **EVALUATING THE IMPACT OF AGRICULTURAL PROJECT ON RURAL DEVELOPMENT: THE CASE OF NATIONAL PROGRAMME FOR ROOTS AND TUBERS DEVELOPMENT – MINKOA, LOBO BASIN, YAOUNDE**

Your responses will be anonymous and will not be linked to you personally. Mind you of the fact that, any information provided will be treated with tact and confidentiality. Kindly provide a tick (✓) where necessary and write out your response as required.

SECTION A: CHARACTERISTICS OF RESPONDENTS

1. Name of group of the Respondent _____
2. Age group of Respondent 18-35 ☐ 36-55 ☐ 55+ ☐
4. Sex: Female ☐ Male ☐
5. Marital Status: Married ☐ Single ☐ Divorced ☐ Widowed ☐
6. Family Size: 0-5 ☐ 6-10 ☐ >10 ☐
7. Level of education: Primary school ☐ secondary school ☐
 University level ☐ others ☐

Please specify _____

SECTION B: IMPACT OF NPRTD ON TARGET POPULATION IN RELATION TO PRODUCTION AND INCOME OF THE COMMUNITY

Section B1 - Impact on Production.

1. What were the dominant project activities of your group before the NPRTD support?
 - a) Livestock production ☐
 - b) Agricultural production ☐
 - c) Mixed production ☐
2. What are the dominant project activities of your group today?
 - a) Livestock production ☐
 - b) Agricultural production ☐
 - c) Mixed production ☐

3. What do you produce?
 Sweet Potatoes ☐ cassava ☐ yam ☐
4. For how long have you been engaged in these activities: >5 ☐ 6-10 ☐ 1-20 ☐
5. Does your group have capacity building as a management technique? Yes ☐
 No ☐
6. Do you think that this capacity building activities has an impact on your community? Yes ☐ No ☐
 If yes How?
- Has led to an increase in your production ☐
 - Has led to an increase in your income ☐
 - Has led to an expansion of your farm and other investments such as in ☐
 education, infrastructure etc. ☐
 - Has led to an increase in your employment ☐
 - Has led to nothing ☐
 - Has led to a loss of money and waste of time

Section B2: Impact on Income

1. What was your level of income before NPRTD program? Below average ☐
 Average ☐ Good ☐ better ☐ best ☐
2. How has NPRTD assisted you? Increase in income ☐ increase in savings ☐
 increase in expenditure ☐ others (specify) _____
3. Is there a market for your products? Yes ☐ No ☐
4. Does the availability of a market if there is have an impact in your community? Yes ☐ No ☐
 If yes How?
- Has led to an increase in your production ☐
- Has led to an increase in your income ☐
 - Has led to an expansion of your farm and other investments such as in
 education, infrastructure etc. ☐
 - Has led to an increase in your employment ☐
 - Has led to nothing ☐
 - Has led to a loss of money and waste of time ☐
5. a) Have you been able to invest with the income (if increased) derived as a result of NPRTD: ☐ ☐
6. b) What kind of investment did you engage in: family investment ☐
 expanding of business ☐ creation of new business line ☐
 Others (specify) _____

SECTION C: MANAGERIAL STRATEGIES (TECHNIQUES) USED BY THE NPRTD AND ITS IMPACT ON THE COMMUNITY. (Place a tick on the most impacted. You can choose just one)

Section C.1: Planning and its socio-economic impact on your community

1. Does NPRTD contribute in planning of your group activities? Yes ☐ No ☐
2. Do you think that this planning strategy has an impact on your community? Yes ☐ ☐
No ☐ If yes, how?
 - Has led to an increase in your consumption ☐
 - Has led to an increase in your savings ☐
 - Has led to an expansion of your farm and other investments such as in education, infrastructure etc. ☐
 - Capacity building ☐
 - Has led to nothing ☐

Section C.2: Coordination and Execution of Activities and its socio-economic impact on your community

1. Does NPRTD assist in coordinating the activities of the group? Yes ☐ No ☐
2. Are they particularly involved in the execution of the group's activities? Yes ☐ No ☐
2. Do you think that this coordination of group's activities has an impact on your community? Yes ☐ No ☐ If yes how?
 - Has led to an increase in your consumption ☐
 - Has led to an increase in your savings ☐
 - Has led to an expansion of your farm and other investments such as in education, infrastructure etc. ☐
 - Capacity building ☐
 - Has led to nothing ☐

Section C.3: Evaluation of Activities and its socio-economic impact on your community

1. Does NPRTD evaluate the activities of the group after completion? Yes ☐ No ☐
2. Do you think that this act of evaluation has contributed to the success of group's activities? Yes ☐ No ☐
3. Does the act of evaluation have any impact on the group and the community? Yes ☐ ☐
No ☐ If yes How?
 - Has led to an increase in your consumption ☐
 - Has led to an increase in your savings ☐
 - Has led to an expansion of your farm and other investments such as in education, infrastructure etc. ☐
 - Capacity building ☐
 - Has led to nothing ☐

SECTION C.4: Availability of a Market and its impact on your community

1. Is there a market for your products? Yes ☐ No ☐
2. Does the availability of a market if there is have an impact in your community? Yes ☐ ☐
No
3. If yes, how?
 - Has led to an increase in consumption ☐
 - Has led to an increase in savings ☐
 - Has led to an expansion of your farm and other investments such as in education, infrastructure etc ☐
 - Capacity building ☐
 - Has led to nothing ☐

SECTION D: MEASURES TO IMPROVE ON THE NPRTD PROGRAM

1. In your opinion, how would you evaluate the overall management of NPRTD Project? Very-sat☐ctory Sa☐actory I☐atisfactory Ve☐
dissatisfactory
2. what other impact do you think the NPRTD project brought to your community?.....
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3. What are some of the problems you face in carrying out your group activities?
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4. What suggestions do you wish to make for the better management of the NPRTD Project?
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5. What else do you know and have to say about the NPRTD Project?
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