COMMUNITY PARTICIPATION IN SUSTAINABLE RURAL INFRASTRUCTURAL DEVELOPMENT IN RIYOM LOCAL GOVERNMENT AREA OF PLATEAU STATE, NIGERIA

BY

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BY

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Declaration

I declared that the work in this thesis entitled Community Participation in Sustainable Rural Infrastructural Development in Riyom Local Government Area of Plateau State, Nigeria has been carried out by me in the department of Geography. The information derived from literature has been duly acknowledged in the text and a list of references provided. No part of this project thesis has been previously presented for another degree or diploma at this or any other institution.

Emmanuel Duniyo Laah _____ _____

Signature Date

Certification

This project thesis titled COMMUNITY PARTICIPATION IN SUSTAINABLE RURAL INFRASTRUCTURAL DEVELOPMENT IN RIYOM LOCAL GOVERNMENT AREA OF PLATEAU STATE; NIGERIA by Emmanuel Duniyo LAAH meets the regulations governing the award of the degree of MSc Rural Development of Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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Dedication

This thesis work is dedicated to my beloved parents Mr and Mrs Augustine Laah Adams whose generosity and encouragement provided the strongest foundation for my education.

_____

Emmanuel Dunniyo Laah

Acknowledgment

My humble gratitude goes to the Omnipotent, Omniscient and Omnipresent God Almighty for all He has bestowed on me to make this study a success. It is a rare privilege that one enjoined in His presence in spite of my weaknesses.

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Abstract

The study investigated the spatial variations in the distributions of rural infrastructure, the level of participation of rural people in infrastructural development, the contributions to sustainability and the constraints to community participation. Data were collected from both primary and secondary sources. Primary data were generated through the retrieved 174 structured questionnaires, using multi-stage sampling technique. Focus Group Discussions (FGD) was employed to collect data from some community based organizations (CBOs) and Non-Governmental Organization (NGOs). The findings revealed a high variation in infrastructures across the sample communities. Four communities including Hoss, Tse/Gura, Riyom and Bum were at advantaged with a cumulative score of 14.40, 13.58, 4.63 and 0.03 respectively, showing Hoss and Tse/gura having a multiple fold compared to others while the remaining 5 communities' (Sharubutu, Wereng, Fangroi, Fang and Tom-gangare) were disadvantaged with negative values of -3.50, -3.92, -4.92, -7.25 and -7.90 respectively showing Tom-gangare having the least infrastructures. The study also revealed that community participation is limited to receiving information, been consulted and without participation with 26.4%, 23.6% and17.2% respectively, putting the level of participation at a lower level. The study confirms that about 33.3% of rural dwellers sustain infrastructures majorly through contributing funds for repairs of abandoned or damaged infrastructures, while other forms of sustainability are through securing infrastructures by using vigilante groups and completing of abandoned projects. Lack of encouragement from government/development partners' encouragement, poor leadership and poverty were among the major constrains to participation reported with 29.9%, 19.0% and 16.7% respectively. The F-test result showed a significant relationship in the level of community participation in infrastructural development in the study area. The study concludes that low participation of rural dwellers in development processes contribute to the un-sustainability of most infrastructures. Based on the findings, the study recommends among other things that community mobilization and awareness creation through mass media, regular meetings with traditional authorities should be upheld. Also, involving communities in project planning and implementation should be encouraged. It can be concluded that development efforts in the study area do not allow the rural dwellers an opportunity to participate in projects meant to improve their well-being, hence un-sustainability of most projects.

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CHAPTER ONE

GENERAL BACKGROUND

1.1 Introduction

Participation and other related concepts like sustainability and empowerment are at the centre of development discourse (Mc-Chener, 1998; Blackman, 2003) and it may be argued that participation is as old as democracy itself. The rural people in Nigeria are the most deprived and neglected. They have least access to basic services such as health, educational facilities, social services and agricultural inputs. In essence, infrastructural and institutional arrangements are deficient at the local level, where most people who need them live, perhaps because the rural people rarely participate in the processes that bring about these infrastructures.

Access to quality services contributes to the achievement of the Millennium Development Goals and to the achievement of human rights (United Nations, 2005). Yet, widespread evidence shows that services are failing poor people in a large number of countries with negative impacts on human development outcomes (World Bank, 2003). However, in Nigeria implementation of rural development projects has been impeded as observed by the top-down approach in which the rural people were not involved in project conception, planning and monitoring which often led to failure and abandonment of many valuable projects.

Development interventions in the past have tended to focus on resource and knowledge transfer to beneficiary communities through the stale top-down approach (FAO, 1991; Creighton, 2005). Of recent, infrastructural approach to development

remains a vital instrument to reach and assist poor communities in the developing countries (UN, 2005). Several decades of development funding have revealed the failures of "top-down" approach to reach and benefit the rural poor (Cernea and Ayse 1997). This realization has led to the adoption of the "bottom-up" approach to development. The various state governments in Nigeria had also articulated blueprints on rural development, adopting the integrated rural development strategy as one of the options to carry development to the rural masses. One way in which improvements in service delivery have been implemented has been through various forms of community participation.

However, despite the recent interest in the 'bottom-up' approach to development, project beneficiaries are still not fully participating in the identification, planning, implementation, monitoring, and evaluation of projects that are meant to improve their lot (Blackman, 2003; Akpomunje, 2010). Even when an element of 'participation' is built into projects, it is all too often largely in terms of local investment of labour and not in real decision-making. Beneficiary communities are only informed after plans have been made and that this is done through formal meetings where the officers justify their plans but modification is not considered (Asian Productivity Organization (APO), 2002).

Nekwaya (2007) observed that community participation is the bedrock of rural development. In other words, limited community participation in the implementation and management of infrastructures means that the infrastructures have few chances of sustainability. In the same way, it is appropriate to view sustainable rural development as a strategy by which communities seek development that benefit the local environment and improves people's quality of life. Sustainable development provides a framework

under which communities can use resources efficiently, provide efficient infrastructure, protect and enhance quality of life, and create structures to strengthen their economies. It can help create infrastructural facilities that can last for several generations.

Experience from the developed economies has shown that a sound rural development policy must be sustainable, efficient and affordable. The World Bank (2004) asserted that the present era is largely dominated by efforts towards promoting citizens' participation in community development, which would require a fundamental shift in attitudes and methodologies, thereby breaking the top-down and give way to bottom-up paradigm. World Bank (1996) also indicated that reaching the poor requires working with them to learn about their needs, understanding how development decisions are made in their communities, and identifying institutions and mechanisms that acquire opportunities and resources.

Community participation emphasizes local control by the community members; de-emphasizes a lesser degree of government imposition of projects on the people or beneficiaries. Recognizing the central role of communities in the project cycle, it is important for project donors/sponsors be it Government, Private or Non-Governmental to involve all stakeholders in the design and implementation of projects so as to ensure beneficiary ownership and also to instill virtues of accountability, transparency and sustainability.

Several projects have been provided in the study area with varying level of success and failure. It is yet unclear whether absence of community participation is what makes some projects to fail while others are sustained. This provides the necessity to

examine levels of rural people involvement in project planning and implementation in the study area.

1.2 Statement of the Research Problem

Community participation is one of the key ingredients of an empowered community (Reid, 2000). Community participation in rural development process is an important element and a sure way to speedy socio-economic transformation of the rural areas in Nigeria and thus is well documented in development studies (Oakley and Marsden, 1991; Simanowitz, 1997; Mansuri and Rao, 2004; Bailur, 2007; Marais et al. 2007). Indeed, the role of participation in community development cannot be over emphasized. Marais et al, 2007; Mansuri and Rao, 2004 maintained that community participation can be successful in cases where the community has been genuinely been part of the process.

Despite the efforts made in the past to improve rural living conditions, the situations have not changed positively rather, it has further deteriorated. This is because development process embraced a top-down approach whereby the community did not have a stake in any decision-making that often affect their state of well-being. Development was initiated by the state, centrally planned and influenced by the elites and bureaucrats (executive arm of government). As a result, this approach failed to equitably benefit rural dwellers, particularly the poor who are excluded from the planning process.

Nevertheless, several studies (Norton and Stephens, 1994; Olukosi, 2002 Steve; Olaleye, 2010 and Olufemi, 2011) have been carried out on community participation in rural projects. The studies revealed that participation is an important determinant of success in project performance and sustainability. In Kenya, Norton and Stephens (1994)

reported that in agriculture, participation as a development technique succeeded in improving the living standard of many farmers and promoted the adoption of new techniques. Moreover, Katz and Sara (1997) and Isham and Satu (1999) find strong associations between participation and sustainability, although they did not establish causal directions. More so, in an in-depth anthropological study of the sustainability of projects, Kleemeier (2000) examines a Malawi rural piped water project and finds that half of the oldest schemes are performing poorly, while the newest ones were performing better. The weak performance stems largely from the lack of institutional support from external agencies.

In the same vein, Olaleye (2010) in a study in Ogbomoso North local government area of Oyo state, Nigeria focused on the determinant of citizens' participation in community development through self-help project. The study established that self-help project is an organ of national and community development programme, which has improved the conditions of rural communities. Steve and Olufemi (2011) investigated the prioritizing of community participation strategies on health development among some rural communities in Kogi State, Nigeria. The findings highlighted the existing participation strategies in the study area to include: - provision of free labour for construction and maintenance of health unit, payment for selected services and Ad-hoc fund raising respectively.

Besides, it is not known whether the reasons for the failure of some projects and success of others in the study area are related to community participation or other extraneous factors. It is against this background that this study assesses the level of

community participation in the sustainability of rural infrastructural development in the study area. The research addressed the following questions.

1. What is the spatial variation in the infrastructural facilities in the study area?
2. What is the level of involvement of rural people in infrastructural development?
3. In what ways have rural people contributed to sustainability of community infrastructural development in the study area? and
4. What are the constraints to participation in rural infrastructural development?

1.3 Aim and Objectives

1.3.1 Aim

The aim of the study was to assess the level of community participation in sustainable rural projects in Riyom local government area of Plateau State, Nigeria.

1.3.2 Objectives

The specific objectives of the study were to:-

i. examine the variation in the distribution of rural infrastructure in the study area;

ii. establish the level of participation of rural people in infrastructural development the study area;

iii. examine the contributions of rural people to sustainability of these projects;

iv. Examine the constraints to community participation in projects in the study area.

Based on the research questions and objectives of the study, the null hypothesis is posited:-

$\boldsymbol{H_0}$. There is no significant relationship in the level of community participation in infrastructural development among rural people in the study area.

1.4 Significance of the Study

It is important that the role of community participation in rural development be assessed to be able to identify the missing link in sustainability of rural infrastructures. Community infrastructures have played a significant role in the socio-economic development of various parts of Nigeria and the world at large, hence understanding the mechanisms and structure through which they evolve and are sustained is important.

The first national development plan (1960-1968) made no clear statement on rural development. The second plan (1970-74) attempted to rehabilitate infrastructural facilities but without concern for rural development. Perhaps, it was the third development plan (1975-80) and the fourth national development plan (1981-85) that emphasized the need for balanced development among the different sectors of the economy as well as the various geographical regions in Nigeria. Some of the rural development strategies include the establishment of Directorate for Food, Roads and rural Infrastructure (DFRRI), integrated rural development; River basin development, community development authority and rural development and mobilization of rural talents, crafts and skills towards national development.

Over the years, development efforts aimed at improving infrastructural development have not included local people at the formulation, implementation and monitoring processes of such programmes. This has often resulted in non-sustainability of many development efforts, thereby leading to abandonment of many vital rural projects. However, community participation in project monitoring and evaluation is a relatively new approach that many development agencies, including government and non-governmental organization (NGOs), are still learning.

It is expected that the publications stemming from this study will assist development partners to consider active community involvement to achieve sustainable rural infrastructural development and also serve as a framework of reference for development programmes through adopting a bottom-up approach. The study provided information on current rural developmental issues and will assist stakeholders in identifying the participatory roles to play to enhance infrastructural development.

1.5. Scope of the Study

The study is on community participation in sustainable rural infrastructural development in Riyom local government area of plateau state Nigeria. The spatial scope covered selected communities in the three districts of Riyom local government area; namely Riyom, Hoss and Werreng communities from Riyom district; Tomgangare, Sharubutu and Fang communities from Bachit district; and Tse/Gura Ganawuri, Fangroi and Bum from Ganawuri district. It focused on the spatial variation of infrastructural distribution; the level of participation of rural people in infrastructural development; the contributions

of rural people to sustainability of projects; and the constraints to community participation in projects in the study area. The temporal scope spans from the 1996 when the local government was created to 2012. The study also covered social, economic and institutional infrastructures within the study area. The choice of the study area is based on it rural nature, varying degree of success and failure of the infrastructural facilities.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section discussed the conceptualization of related key concepts of community participation in rural development process. This was followed by examining the philosophy of community participation, and the framework regarding community participation in rural development process which is the focus of the study.

2.2. Conceptual Framework of the Study

There are some fundamental and technical concepts that demand clarifications in the way they are being used in this study and they include: - the concepts of community development, rural infrastructure, sustainability and community participation.

2.2.1 Community development

The concept of community development is here described in greater detail as to its meaning, application, and principles.

Roux (1995) defined community development as process whereby people are enabled to mobilize and manage forces and resources in a community by creating opportunities for democratic decision-making, active participation and co-operation, self-help, development of leadership and utilization of education opportunities to promote the intrinsic potential and forces in the community. Community development focused on the method whereby desired change could be brought about in the communities (Theron,

2005). It could be regarded as “community education” in some circles, while in others it is “community organization” or “community participation”. The diverse terms refer to the active involvement of people at the local community level to either oppose or support a matter, a phenomenon or a programme in which they are interested. Korten (1990) argued that community development is a process whereby the members of the rural community increase their potential and institutional capacities to mobilize and manage resources to produce sustainable and justly distributed improvement in their quality of life consistent with their own aspirations.

Lombard (2005) also emphasized the empowerment of the community adding the support of external resources. Community development is thus regarded as a process, a method, a programme, a movement aimed at enabling and encouraging communities to become involved, with the necessary support from the private and government sectors, in improving and managing their own living conditions in all areas of development.

2.2.2 Rural Infrastructures

Infrastructural facilities refer to those basic services without which primary, secondary and tertiary productive activities cannot function. Abumere (2002) defined rural infrastructure to include the system of physical, human, and institutional forms of capital which enables rural residents to better perform their production, processing, and distribution activities, as well as help to improve the overall quality of life. Some of these infrastructures are roads communication network, irrigation, storage facilities, market facilities, research and extension institutions, schools and universities which train and turn out a variety of skilled agricultural workers.

Rural infrastructure can be better understood as those specialized "elements" in the development process that bring about improvements in the socio-economic welfare of the rural dwellers. They are catalysts of development, and at the same time their presence can be an indicator of the level of development. On the other hand, the presence of certain types of infrastructure such as electricity may not bring about significant improvements in the life of the people unless when combined with other variables. The following can be classified as social infrastructure; health (hospitals, dispensaries, maternities, health centers), education (all types of schools except universities) and utilities (water and electricity).

FAO, (2005) observed that rural infrastructure plays a crucial role in poverty reduction, economic growth and empowerment for the African rural poor. The lack of adequate and reliable infrastructure touches the life of every rural African family daily. The infrastructural approach to rural development is one method commonly used by most Third World countries. It is perceived that the adequate provision of these types of infrastructures will enhance the introduction and adoption of innovations offered by institutional infrastructure.

2.2.3 Sustainability

While individuals can and should have their own points of reference and areas of interest regarding sustainability, a single project needs to have a broad, clear and well-defined concept of sustainability to guide implementation and serve as a basis for evaluation. Theron (2005) observed that community participation should lead to sustainable development. Community participation and sustainability involves local choice because people are the local experts, in line with the idea of an indigenous knowledge system.

Sustainable development is defined as development that meets the needs of the present without compromising the ability of the future generations to meet their needs (World Commission on Environment and Development (WCED), 1987). The main concept behind the idea of sustainable development is an ethical imperative of intergenerational and intragenerational equity, which has evolved from the development paradigm of equitable growth (Munasinghe, 1993).

The major issue confronting rural development programmes in Nigeria was absence of sustainability that is driven by participation of programme beneficiaries. Ogueri, (2006) opined that a very strong positive relationship between participation and sustainability exists. The more rural people were involved to address their own development (from inception to completion / evaluation), the more the confidence and success level associated with such programmes. The rural people especially women claimed that they are not involved in participating in programmes meant for their development. They accused government and multinational oil and gas corporations of deliberate plans not to involve them.

For the purposes of this study, sustainability can be considered through three different dimensions namely; sustainability of outcomes, sustainability of processes, and sustainability of resources. These elements are briefly described below as contained in (World Bank 2006, pp 65-80):

Sustainability of Outcomes: Simply put, this concerns whether the improvements in quality of life or standard of living of project beneficiaries will endure beyond the project completion. An assessment of sustainability in this regard would measure the gains made

due to the project, then predict the durability of those gains in the years following the project.

Sustainability of Process: A development project provides a set of direct and indirect services – its process – to beneficiary communities. Sustainability of the process depends on individuals and institutions to continue providing those same services after the assistance and subsidies of a project end. More often than not, a project seeks and expects this type of sustainability, which depends on the viability of institutions and their capacity and potential for survival and continued function.

Sustainability of Resources: This theme refers to the extent to which activities promoted by the project will preserve/deplete the natural resource base. Obviously a lucrative activity that gradually exhausts the resources upon which it depends will not be sustained.

In line with the promotion of the principle of sustainable development, infrastructure projects should be developed to bring benefits across all aspects, including economic, social, and environmental. Considering that the effects of infrastructure construction activities on the environment are more significant, environmental and social effects of infrastructure projects usually are not assessed properly in the project's feasibility study; they often are identified during or after the implementation of the project (World Bank, 2006).

2.2.4 Community Participation

One of the high point of democracy is the participatory decision making process which is required by those in government (Tshabalala, 2006). Kumar (2002) stated that participation means different things to different people. The way participation is defined largely depends upon the context and background in which participation is applied.

The United Nations Research Institute for Social Development (UNRISSD) cited in Burkey defines participation in terms of power sharing. It described participation as organized efforts to increase control over resources and regulative institutions, on the part of groups and movements of those hitherto excluded from such control (Burkey, 1993). As can be seen from the above definitions, participation is viewed as an active process in which the participants take initiatives and actions that are stimulated by their own thinking and deliberations over which they exert effective control. De Beer and Swanepoel (1998), opine that participation may mean that communities are allowed direct and ultimate control in taking decision concerning their affairs. With regard to rural development participation includes people's involvement in decision making processes, attending meetings, contributing money to community projects, and in implementing programmes.

Community participation is one of the key ingredients of an empowered community (Reid, 2000). As Theron (2005) pointed out, there are considerable difference of opinion as to what community participation is, and it follows that there will be many arguments about the universal definition. The term citizen or public participation is often used interchangeably. Community participation to Sproul is the process of "giving people more opportunities to participate effectively in development activities, empowering people to mobilize their own capacities, be social actors rather than passive subjects, manage the resources, make decisions and control the activities that affect their lives" (Sproule, 1996). The United Nations (1981) sees community participation as the creation of opportunities to enable all members of a community to actively contribute to and influence the development process and to share equitably in the fruits of development.

Community participation is a complex mechanism, and in effect there is no single blue print. Hence, each area is characterized by different dynamics and demographics. This view is held whilst taking cognizance of the fact that development does not occur successfully if beneficiaries are not part and parcel of the process of planning and implementation of the process.

Community participation means empowering people by developing their skills and abilities so that they can negotiate with the rural development system and can make their own decisions in terms of their development needs and priorities (Theron, 2005). It is a continuous two way process which involves the full understanding of processes and mechanisms through which development problems are investigated and solved. It covers a spectrum of activities ranging from passive involvement in community life to intensive action-oriented participation in community development.

People's participation has to do with economic and political relationship within the wider society, it is not just a matter of involvement in project activities but rather the process by which rural people are able to organize themselves and, through their own organization, are able to identify their own needs, share in design, implement, and evaluate participatory action (Kumar, 2002). This view of community participation can be further divided into two categories according to the will of the people wishing to influence policy decisions; passive participation which includes simple one-way information delivery or request for information and active participation which includes formation of a consensus on specific issues, monitoring administrative activities and administrative requests.

Community participation is rooted in democratic approaches to public policy, community planning and development, which assume that people have a right to make decisions that affect their lives.

There are two broad implications of community participation which are identifiable, those that view community participation as a means and those that view it as an end (Kumar, 2002). Community participation as a means or end is an issue which has bothered both development thinkers and workers. Burkey (2000) indicates that the proponent of the second view often maintain that development for the benefit of the poor cannot occur unless the poor themselves control the process through the praxis of participation.

Nampila (2005) referred to community participation as a method whereby the residents of a community are given a voice and choice to participate in issues affecting their lives. Theron (2005) asserts that if the process is well managed, the members are likely to take ownership of the projects that are to be implemented. Breuer, (1999) described community participation as a process by which people are enabled to become actively and genuinely involved in defining the issues of concerns to them, in making decisions about factors that affects their lives, in formulating and implementing policies, in planning, developing and delivering services and in taking action to achieve change.

Burkey (1993) also points out that until recently the notion of participation as a means to achieve effective development still dominate rural development practice. Oakley and Marsden (1984), state that there are two main vehicles for implementing this notion of participation; (1) community development programmes which were aimed at

preparing the rural population to collaborate with government development plans and (2) the establishment of formal organizations (cooperatives, farmers association, etc.) which were to provide the structure through which the rural people could have some contact with, and voice in, development programmes.

Participation as a concept means involvement in decision making, to choose a community project; plan; implement; manage; monitor; and control it. Participation occurs as community organizes itself and takes responsibility for managing its problem. Taking responsibility includes identifying the problems, developing actions, putting them into place and following through (Cheetham, 2002). Hamilton, (1992), remarked that participation is both a means and an end. As a "means" it is ensuring local peoples cooperation/collaboration with externally introduced programmes or processes to facilitate the effective implementation of such initiatives and to achieve a set of objectives; while as an "end", it is the empowerment of people to take greater responsibility for their development through acquisition of skills, knowledge and experience. Oakley and Marsden (1991) state that self-reliance has a positive effect on rural communities by participating in development. It helps to do away with the mentality of dependence, promotes self awareness and confidence, and people participate to solve their problems.

Kumar (2002) also agrees that community participation, as an end is self-mobilizing where the local people themselves are in total command. There is no doubt that meaningful participation is about achieving power: which is the power to influence the decisions that affect one's life and livelihood. Community participation is viewed as an end if it becomes a long-term process, the purpose of which is to develop and

strengthen the capabilities of people in order to participate directly in development initiatives (Kumar, 2002).

2.3. Approaches to Community Participation

It is important for the communities and stakeholders to understand the levels and modes of community participation in development process. Theron (2005) had stated that some levels are more relevant than others to ensure effective community participation. The approaches become more relevant when the impact of participation is assessed in relation to a programme or project, and the degree of participation becomes a central feature (Fokane, 2008).

Theron (2005:115) identified some levels of community participation and they include the following: -

Passive participation: Passive strategies very often involve a one-way flow of information from the planners to the public (Kumar, 2002). People participate by being told what is going to happen or has already happened. Participation relates to a unilateral top-down approach by the authorities. The information being shared belongs to outsiders or professionals.

Participation in information giving: This level does not constitute community participation because they merely require the community to judge a finished or almost finished product. People participate by answering questions posed in questionnaires or telephone interviews or similar public participation strategies. The public do not have the opportunity to influence proceedings as the findings of the research are neither shared nor evaluated for accuracy.

Participation by consultation: People participate by being consulted as consultants/professionals/planners and external officials listen to their views. The professionals define both problems and solutions and may modify these in the light of the people's responses. The process does not include any share in decision-making by the public, nor are the professionals under any obligation to take people's views.

Participation for material incentives: People participate by providing resources, for example labour, in return for material rewards. This helps to reduce overall costs, and participants in return receive a resource (Nampila, 2005). This typology takes place in rural environment, where, for example farmers provide the fields but are not involved in the experiment or learning process. The people have no stake in continuing the activities when the incentives end.

Functional participation: People participate in a group context to meet predetermined objectives related to the project, which may involve the development or promotion of externally initiated social organizations. Such involvement does not tend to occur at the early stages of project cycles or planning, but rather after major decisions have been made. These institutions tend to be dependent on external initiators and facilitators, but may also become self-dependent.

Interaction strategies: People participate in a joint analysis, the development of action plans and capacity building. Participation is seen as right, not just the means to achieve project goals.

Self-mobilization strategies: People participate by taking initiatives independent of external institutions to change systems. This bottom-up approach allows people to

develop contacts with external institutions for resources and the technical advice they need, but they themselves retain control over how resources are used. Such self-initiated, bottom-up and self-reliant mobilization and collective actions may or may not challenge an existing inequitable distribution of wealth and power. Nekwaya (2007) pointed out that the route to effective community participation would depend on selecting the right combination of approaches. However, this would determine whether the community authorities actually allow the community to participate and make its own decisions

Table 2.1 Ladder of community participation

Control	**Participant's action**	**Examples**
High ↓	Has control	Organization asks community to identify the problem and make all key decisions on goals and means. Willing to help community at each step to accomplish goals.
	Has delegated authority	Organization identifies and presents a problem to the community. Defines limits and asks community to make a series of decisions which can be embodied in a plan which it will accept.
	Plans jointly	Organization presents tentative plan subject to change and open to change from those affected. Expects to change plan at least slightly and perhaps more subsequently
	Advises	Organization presents a plan and invites questions. Prepared to change plan only if absolutely necessary.
	Is consulted	Organization tries to promote a plan. Seeks to develop support to facilitate acceptance or give sufficient sanction to plan so that administrative compliance can be expected.
	Receives information	Organization makes plan and announces it. Community is convened for informational purposes. Compliance is expected.
Low	None	Community told nothing

Source: adapted from Brager and Specht (1973:39)

As highlighted above, community participation is an umbrella term for many different practices. It is especially important to recognize these levels of participation this has been summarized by Brager and Specht (1973) as ladder of community participation. (Table 2.1).

The four kinds of participation identified by interdisciplinary Rural Development Committee at Cornell University are: decision- making, implementation, benefits and evaluation. Even if these kinds of participation are distinguishable, there are usually connections and feedback among them (Uphoff, 1997). For example, participation in decision making is likely to contribute to participation in benefits, emphasized the questions of who, how, what and why the community participate in development process. It is important to know who participated, why they participated, and how they participated.

2.4. Principles of Community Participation

For effective implementation of community participation, it is essential to understand its principles and core values as highlighted by Theron (2005). This understanding would help to change the perception of development partners towards community participation in terms of development planning and service delivery. It is essentially a people-centered development that seeks to return resource control to the people and their communities to be used in meeting their own needs. It further calls for active mutual self-help among people, working together in their common struggle to deal with their common problems.

The cardinal principles of community participation were highlighted by Theron (2005) to include the following: -

First, sovereignty resides with the people, the real actors of positive change. This calls for government and their development agencies including traditional leaders to change the perception that communities are recipients of development projects, as opposed to being actors in the development planning process and service delivery system.

Second, to exercise their sovereignty and assume responsibility for the development of themselves and communities, the people must control their own resources, have access to relevant information and have the means to hold the officials of the government accountable. This point suggests that development partners/government must put into effect policies that require the community to participate and ensure that relevant information is provided to communities in the development processes.

Third, the legitimate role of government is to enable the people to set and pursue their own agenda. Government and development partners should change the current trends. The local government authorities need to identify various platforms under which communities set their own agenda and implementation thereof.

Lastly, those who would assist the people with their development must recognize that it is they who are participating in support of the people's agenda, not the reverse. The value of the outsider's contribution will be measured in terms of the enhanced capacity of the people to determine their own future. This gives development partners a chance to invite the contribution of outsiders in terms of project implementation in order to enhance communities' capacity.

Besides the general principles, another aspect of community participation is the importance of core values as it contained in the International Association for Public Participation (IAPP, 2002). The core values include:

First, the community should have a say in decisions about actions that affect their lives; community participation includes the promise that the community's contribution will influence the decision. The difficult part is to ensure that all decision is influenced by the input of the community members; secondly, the community participation process communicates the interest and meets the process needs of all participants; thirdly, the community participation process seeks out and facilitates the engagement of those potentially affected. In every project there is a need to identify those stakeholders and facilitate their participation; fourthly, the community participation process entails participation in defining how they participate. The challenge is time constraints as communities do not respond as per the projects schedule; and lastly, the community participation process communicates to participants how their input affected the decision and the community participation process provides participants with the information they need in order to participate in a meaningful approach. Community participation in development process can thoroughly be addressed, if the development planners and any other relevant stakeholders in development would bear in mind these principles and core values in facilitation of development projects.

2.5. Significance of Community Participation

Kakumba and Nsingo (2008) instituted that community participation lies on the involvement of citizens in a wide range of administrative policy-making activities,

including the determination of levels of service, budget priorities, and the acceptability of physical construction of projects in order to orient government programmes toward community needs, build public support, and encourage a sense of cohesiveness and humanity within the society.

The common belief is that involving beneficiaries in rural programmes and empowering them have the potential to boost their livelihoods and foster development in their area (Kakumba and Nsingo, 2008). The development efforts should start by recognizing people's potential, and proceeds to their enhancement and growth. Citizen participation can be viewed from the perspective of benefits to be gained and cost to be borne. Participation in development is now being sought the world over, not because it is a fad but because there has been a consensus on the usefulness of participation in development programmes.

Creighton (2005) also stated that community participation promotes self-confidence and self-awareness. Nampila (2005) agreed that this heightened consciousness made people continuously aware of the reality about them and of their own capacity to transform it. When people have the freedom to participate in activities, it gives them dignity and self-respect.

Furthermore, experience has shown that development interventions from external assistance projects usually fail to sustain the required level of development activity once the central support or inputs diminished or withdrawn by funding agencies. People's participation is regarded as an essential prerequisite for the continuity of activities. The involvement of local and utilization of local resources generates a sense of ownership

over development interventions to the community. This sense of ownership is essential for the sustainability of the interventions even after external funds cease to flow (Kumar, 2002).

Participation also ensures that projects are developed according to the needs of the people (Raniga and Simpson, 2002). This can improve the outcomes of projects through cost sharing, increased efficiency and effectiveness. Through community participation, resources available for development projects will be used more efficiently and fewer costs will be incurred if the people themselves are responsible for the project (Kumar, 2002).

In addition, it gives community self-reliance. Many development interventions have been seen to create a kind of dependence syndrome. For instance, in India, there is a widespread government development programmes, people have started looking to the government for solutions to every problem that they face (Kumar, 2002). This situation is not different in Nigeria. The ultimate objective embraces all the positive effects of genuine participation by rural people. Self-reliance demolishes their over-dependency attitudes, enhances awareness, confidence and self-initiative. It also increases people's control over resources and development efforts, enables them to plan and implement and also to participate in development efforts at levels beyond their community.

Finally, it also teaches communities how to resolve conflict and allows for different perspectives to be heard. In this way, learning is promoted and people will be able to help themselves (Baum, 1999 in Nampila, 2005). Communities will be able to assess their own situation, organize themselves as a powerful group and work creatively

towards changing society and a new world (Nampila 2005). This increased capacity of individuals, allow communities to mobilize and help themselves to minimize dependence on the state and leads to a bottom-up approach (Nampila, 2005).

Nekwaya (2007) highlighted that community participation has the close link with the buildings blocks of development or rural development generally. Community participation and the building blocks of development are linked in the sense that the building blocks have influence on community participation. These links can be seen in the following concepts:

Capacity building: According to South African Department of Water Affairs and Forestry (2001) capacity building is the ongoing process of increasing the ability of individual, groups and organization to control and manage all important areas of their lives or operations. It empowers communities as stakeholders because it offers them the opportunity to develop the knowledge, skills and resources necessary to control their own lives and operations.

Self reliance: According to Burkey (1993) self-reliance is about doing things for oneself; maintain one's own self-confidence and making independent decisions. Rahman (1993) argues that self reliance is a state of mind that regards one's own mental and material resources as the primary stock to draw on in the pursuit of one's objectives, and finds emotional fulfillment not only in achieving the objectives as such but also in the very fact of having achieved them primarily by using one's own resources. People must feel and believe that it is their own efforts that are driving the development process.

9Burkey (1993) further indicates that self-reliance teach people how to form and manage their own organization. This means that people must have confidence in their own knowledge and skills, in their ability to identify problems and find solutions in order to make improvement in their own life. This would help the development partners in terms of resource mobilization and acceleration of community participation implementation.

Empowerment: Oakley and Marsden (1991) see empowerment as the development of skills and abilities to enable rural people to manage better, have a say in or negotiate with existing development delivery system. Theron (2005) argues that issues of community participation and empowerment in the planning process for service delivery are central to sustainable development. Fitzgerald (1997) as cited in Nekwaya (2007) an individual becomes empowered by being able to do things not done previously, gaining an ability to do these new things and having opportunities opened up which were previously denied.

Social learning: Theron (2005) assert that social learning process approach extends the principles of bottom-up planning and community participation by arguing that change agents and development organization should adopt a learning attitude. This calls for an integration of the three elements of social learning. Korten (1983) in Theron (2005) highlights these elements into projects design, planning and implementation to create a culture of mutual learning and partnership between development partners and communities. These three are as follows: First, the community and the service delivery system: the capacity of the people and expected output must be integrated. Secondly, the community and the community organizations: the formulation of the needs and demands by the people and the decision-making process of the organization should be integrated

and lastly, the programme/project and the community organizations: the programme/project objectives have to be in keeping with the capacity of the organization and that of the community.

2.6. Limitations to Community Participation

Community participation takes place in a socio-political context (Kumar, 2002). One should realize that implementing community participation in rural development process is not an easy exercise, as the form which participation takes is influenced by the overall circumstances and the unique social context in which action is being taken (Nekwaya, 2007). Nampila (2005) also asserts that community participation does not guarantee success and there is no clear methodology of community participation. This has occurred because community participation does not have clear goals and objectives and it is approached in an ad hoc and unsystematic manner.

It is time-consuming. Kumar (2000) mentions that community participation may lead to delay and slow progress in initial stages of the field work thereby delaying the achievement of physical as well as financial targets. However, it should be remembered that obstacles to community participation are directly related to one's perspective of community participation (Oakley and Marsden, 1984).

Kok and Gelderbloem (1994) state that community participation can bring latent conflicts to the surface and it can delay project start-up, while increasing the demands on project personnel and managers. The interface between politicians and civil servants has

also exhibited conflicts of roles and interest, factionalism, confrontation, intimidation and power struggles (Makaca, 1998 in Kakumba & Nsingo, 2008).

Illiteracy is an inhibiting factor in community participation. This is because illiterate people may be marginalized by professional and technical communication during the community-participation process (Theron, 2002). Nekwaya (2007) points that stakeholders may use community participation as a platform to further their own agendas. It is not clear what constitutes a "good" decision when it comes to community participation. Community participation is not a legislated requirement in all countries. Many countries therefore lack supporting legislation and an institutional framework to ensure that stakeholders are effectively and efficiently engaged in the decision-making process. Governments may have a problem of delegating authority and power and, although requirements to empower stakeholders in the decision-making process may exist in law, this has not always been translated into practice.

Nyemetu (1999) stated some deficiencies of community participation to include the following: - Failure to encourage people to think or act for themselves in an attempt to solve their problems, thereby making them to rely upon external sources for action and solutions; Failure to provide adequate training has made local people to be incapable of maintaining the service that had been set up. Available service could not be sustained by local resources and knowledge; little active community involvement in programme design and implementation and a lack of community interest in externally promoted rural development programmes had often created conflict between development workers and the local people themselves.

CHAPTER THREE

STUDY AREA AND METHODOLOGY

3.1. The Study Area

3.1.1. Location

Riyom local government area (LGA) is located between Latitude 9^0 $19^{'}$ to 9^0 $39^{'}$ North and Longitude 8^0 $19^{'}$ to 8^0 39' East. It is bounded by Barki Ladi area on its south-eastern border while Kaura and Sanga areas of Kaduna state are found on its north-western and south-western border respectively. The study area covers a landmass of 768.75 sq km. It is bounded by Bassa and Jos South areas to the north-east, Barki-ladi to the south-west and Kaduna State to the west. The study area is divided in to 3 districts (See Figure 1 and 2).

3.1.2. Relief and drainage

The relief and drainage of this area, just like any other areas in the Jos plateau lies on the gentle undulating highland of the Jos plateau on an average height of about 1220 meters (4000ft above the sea level). The Riyom area is surrounded by hills and inselbergs; this gives the study area the typical plateau landscape of treeless, grassy plains from which rises scattered groups of low rocky hills. The study area has lots of picturesque rock formation between 'Hoss' town and 'Riyom' town which are a wonder of nature and major tourist attraction. Also, the 'Kahwang' Basalt rock formation is one among the only two in the world. The Kwi conical hill too is yet another major tourist attraction. There is also the Oracle Cave in Bum ward of Ganawuri Chiefdom among many others found in the study area. (Riyom LGA information unit, 2005).

The area like other areas located on the Jos plateau is associated with the pre-cambrian basement complex rocks of northern Nigeria. The predominant rocks in the region are volcanic rocks which consist of mainly granites, gneiss and migmatites which dates back to Paleozoic era. They are everywhere and are less resistant to weathering than the younger granites although the porphyritic granites are much more resistant than the migmatites. Geomophological processes of denudation, particularly chemical and physical weathering processes have created a superficial geology in the area made up of lateritic iron stones, weathered and transported regolith in addition to solid outcrops (Bacham and Pugh, 1969).

The whole area (Jos Plateau) marks a major hydrological centre in northern Nigeria for drainages. Skeletal soils occur at the foot of rocky hills or long narrow river valley, and represent the earlier stage in soil formation from materials weathered from granites, schist and gneisis. The area is a product of distinct phase of volcanic eruptions and was followed by a longer period of weathering and erosion. (Riyom LGA information unit, 2005).

The most striking feature in the immediate environment is the existence of padlocks, dams built to conserve water in reservoirs caused by mining and large mounds of mining ponds and dumps of over burden excavated from mines. Another tourist asset is the Assop water falls in Sopp-ward along Abuja-Jos road. It has been put to use as a resort centre by the Plateau State tourism corporation for over two decades.



Figure 1: Plateau State showing the Study Area: Riyom L.G.A.
Source: Adapted from the administrative map of Plateau State.

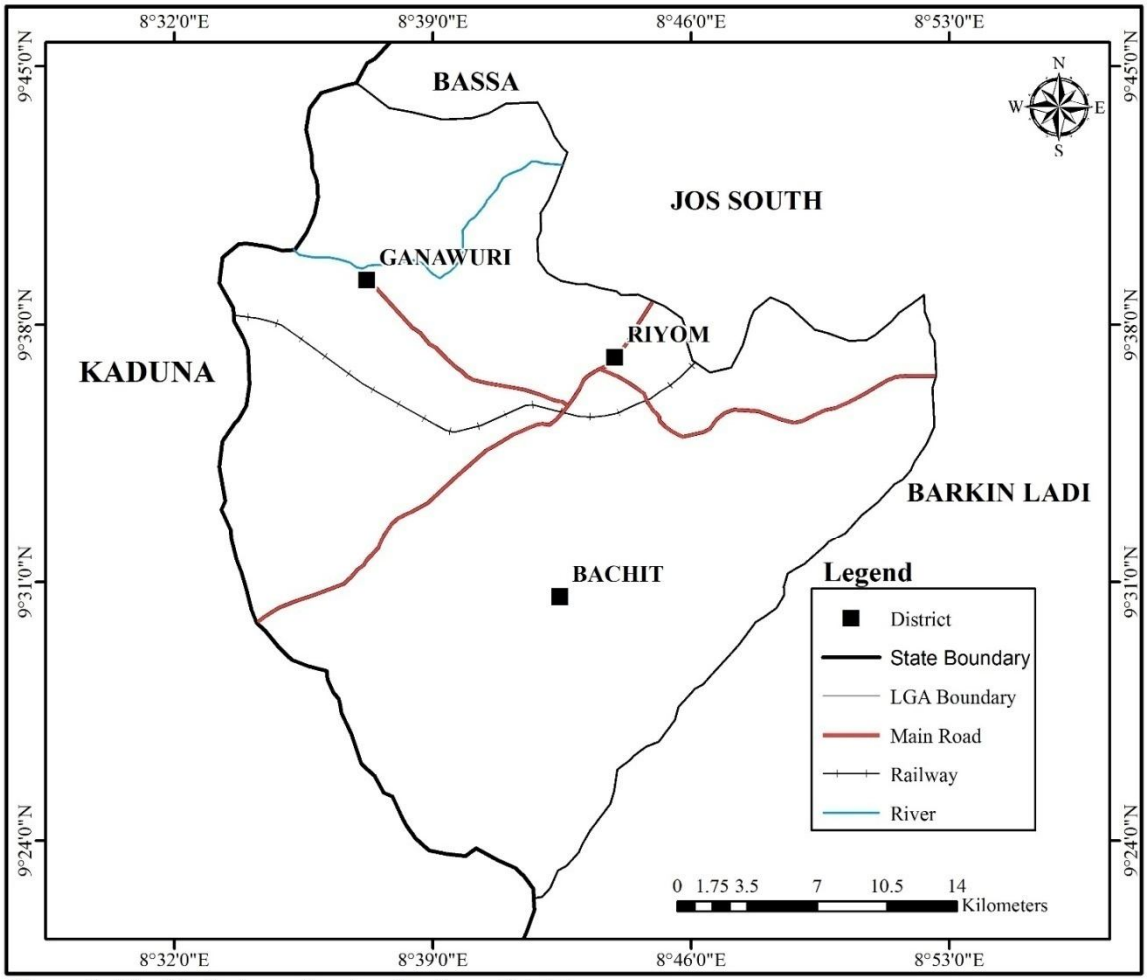


Figure 2: The Study Area showing the three districts.
Source: Adapted from the administrative map of Plateau State.

3.1.3. Climate

The study area is characterized by a modified temperate climate which is typical of northern part of Plateau State. There are two distinct seasons in the study area; they are the dry and the rainy seasons. The former starts from April and ends in November of each year, while the later starts from November and ends in March every year. Usually, the cold harmattan wind dominates February to March annually. An annual average temperature ranges between 6^0C for the cold month (February) and 32^0C for the hottest month (March) (Riyom LGA information unit, 2005).

3.1.4 Rainfall

There are two distinct seasons in the study area; they are the dry and the rainy seasons. The rainfall is between 1250mm-1500mm per annum. The rainy season last for seven months from April to November while the dry season last for four months from November to March of every year. The rainy season is characterized by conventional rains which often occur as thunderstorms especially during the beginning of the rainy season.

3.1.5. People and occupation

The study area is inhabited by three major ethnic groups namely; Attakar, Berom and Ganawuri. However, due to western civilization and quest for national unity coupled with the hospitable nature of the people, other ethnic nationalities have taken permanent residence in the area. Some of these include Hausa-Fulani, Igbo, and Yoruba etc. (Riyom LGA information unit, 2005). Using the growth rate of 2.8% for Plateau, the projected population of the area is given as 155,526 people.

There are a number of cultural festivals which have existed since time immemorial in the area as a whole. The different ethnic groups in Riyom celebrated one form of festival or other signifying cultural rites.

The Berom for instance engage in Vwana and Mandieng. 'Vwana' in Berom culture signifies the beginning of the rainy season as such it is celebrated in April of every year. On the other hand, 'Mandieng' signifying the commencement of the new harvest, it is celebrated in November of every year. It is also worthy of mention here that these two festivals are honoured by the Berom from Riyom and Bachi districts respectively (Riyom LGA information unit 2005).

The Atten and the Attakar people in Ganawuri chiefdom celebrate the following festivals: - 'Wuru Dagarang', this signifies the migration of their ancestors from their former place of abode in a cave to a new place on land as a result of persistent tsetse-fly infection. This festival is celebrated every 17th December. Other prominent festivals of the Atten people are 'Richen' and Nep'. The former is in respect of the first 'acha' harvest. This is celebrated in the months of September while the later signifying the harvest of new root crops such as yam, Cocoa-yam and new fruits such as oranges and mangos (Riyom LGA information, unit 2005).

The major occupation is agriculture due to the vast land available and fertile nature of the soil. There is abundance of agricultural output which could serve as raw materials to food and beverage industry. The production of these raw materials is made possible due to the fertility of their soil, good vegetation cover, adequate rainfall which is considered heaviest on the plateau. These factors are just equitable for both crop production and animal husbandry (Riyom LGA information unit, 2005).

Among the crops produced in Riyom LGA are: - Grains comprising 'Acha', Maize, Rice and Millet; Tubers comprising Sweet-Potatoes, Irish Potatoes, Yam, Cassava and Cocoa-yam; Legumes comprising Groundnuts, Beans, Soya-beans, and lastly vegetables comprising Tomatoes, Cabbage, Carrot, Cucumbers etc. As a result of the area's blessing in agriculture coupled with its strategic location on the plateau as gate-way to and from 'Abuja' the federal capital territory to the North-Eastern part of Nigeria, the local government have become one of the food baskets of the country (Riyom LGA information unit, 2005).

On weekly basis, people in the local government area participated in three functional markets which attract hundreds of sellers and buyers to the study area. These markets are Ganawuri which is held on Wednesdays, Hoss market which takes place on Tuesdays and Riyom market on every Thursday (Riyom LGA information unit, 2005).

The study area is endowed with rich mineral resources deposited in various locations across the entire L.G.A in commercial quantity waiting to be harnessed for both domestic and export markets. These minerals include: tin (carsitarite), columbite, barites, kaolin and granites (Riyom LGA information unit, 2005).

3.2. Methodology

3.2.1 Reconnaissance Survey

A reconnaissance survey was carried out in order to get acquainted with the study area and appraise the development of project in the selected communities. The major projects discovered were motorized borehole with overhead tank, constructed box culverts, primary healthcare centres, markets and shopping complexes. Others are rural electrification projects, constructed and roofed classrooms, boreholes, rehabilitated rural feeder roads, community halls, and viewing centers. These projects are spread across the three districts under investigation (Riyom, Bachit and Ganawuri).

3.2.2 Data selection

In line with the stated objectives, the study required information from the local government council headquarters, most especially the works Department and Department of social and rural development which were gotten from established annual reports and

official gazettes. In this regard the questionnaire and FGD elicited data used in the study which included:

i. data on the characteristics of rural dwellers in the study area;
ii. data on different development partners funding projects in the study area;
iii. data on constraints to community participation in the study area;
iv. data on the role of communities in sustaining the projects,
v. data on the perception of respondents on community participation,
vi. data on the attitudes of the community towards development projects,

3.2.3 Sources of Data

The study used both primary and secondary sources to generate the data needed.

Secondary sources included documented materials on rural development projects used to establish the literature review; official gazettes and annual reports from the LGA used to get data on the availability and state of infrastructural facilities in the study area; while research reports, journals and newspapers, published conference proceedings, unpublished articles, books and on-line materials were used as well.

The primary sources of data targeted various stakeholders, Non-Governmental Organizations (NGOs), community based organizations (CBOs) and households. The major research instrument was semi-structure questionnaire through oral interviews, focus group discussion (FGD) and field observation. The indicators for the field observation included: infrastructural utilization, accessibility, level of performance, physical condition in terms of maintenance and extent of these infrastructural coverage.

3.2.4 Sample Size and Sampling Technique

The research instruments elicited information on assessment of community participation in sustainable rural infrastructural development in Riyom LGA of Plateau State, Nigeria. The study area has a human population of 131,778 (NPC 2006). Using the growth rate of 2.8% for Plateau state, the projected population for 2012 is given as 155,526 people.

The multi-stage sampling technique was employed in this study. The first stage concerned with selection of the existing three (3) districts, that is, Riyom, Bachit and Ganawuri districts. In the second stage, communities were selected using purposeful sampling technique, based on the nature and number of infrastructural facilities available in the community. Lastly, the third stage was the random selection of the households as part of the sample.

The communities with different kinds of success and failures in projects were purposefully selected. These included; Riyom, Hoss and Werreng communities from Riyom district; Tomgangare, Sharubutu and Fang communities from Bachit district; and Tse/Gura Ganawuri, Fangroi and Bum from Ganawuri district. The projection of selected communities' population was based on the Plateau State population growth rate of 2.8% using the formula $P_n = P_o((1 + r)^t$ Where:

P_n= population in the later period

P_o= population in the earlier period

t = time interval between the two period

r = rate of growth

The 1991 Census figures was projected for 2012 and used in this work because it disaggregated the population into localities (See table 3.1).

Table 3.1 Selected Communities and Sampled Household Population

Districts	Localities	1991	2012 Projections	Sampled households
RIYOM	Riyom	3,003	5,363	38
	Hoss	3,118	5,581	39
	Weren	1,068	1,911	13
BACHIT	Tom/gangare	1,417	2,536	18
	Sharubutu	257	460	4
	Fang	719	1287	9
GANAWURI	Tse/Gura Ganawuri	2,057	3,682	26
	Fangroi	3,123	5,590	39
	Bum	1,240	2,219	16
TOTAL	NINE	16,002	28,630	202

The study thus covers nine (9) settlements selected from the three districts. Random sampling technique was used in selecting respondents in each community households. According to Krejcie and Morgan table (1970) the sample size adequate for the study area is 382. However, Ottong (2000) asserted that about 44.6% of Nigerian population is adult that is above 19 years. Using this basis, since the sampling frame is adult population, an equivalent of 53% of the adult population was taken to give a total of 202 adult persons. The questionnaire was administered based on the population size in each district (Table 3.1). Out of 202 questionnaires, only 174 were retrieved. Four (4) Focus Group Discussion (FGD) sessions were conducted to complement data being collected from the questionnaire survey. The FGD included CBOs leaders, women group, an NGO and community groups' leaders.

3.2.5 Methods of Data Analysis

Both descriptive and inferential statistical techniques were employed in the analysis of the data. The descriptive statistics, which involves the use of averages (means), percentages and frequency distribution to summarize, classify and tabulate data, was used to achieve objectives i, iii, iv and v. In addition, the Z-score analysis was employed to meet objective ii. The Statistical Package for Social Sciences (SPSS) programme was used for data processing and analysis and all tests was at 0.05 level of significance.

The inferential statistics on the other hand centre on chi-square in order to establish if any significant difference exist between the levels of participation among rural people in the study area.

The chi-square which is a non-parametric statistic was employed for testing hypothesis. It was used to establish whether or not a significant difference exists in the level of community participation in rural infrastructural development as well as the significance difference in the spatial distribution of rural infrastructure in the study area.

Z-score, a standardized additive model which was used to examine spatial variation in infrastructure affords the opportunity to rank the unit areas in accordance with the number of infrastructures available. It measures the individual observations from the mean of observations, usually expressed in comparative form. The score of each community on each set of infrastructure is standardized in to Z-scores by scores into zero mean and unit standard deviation. The zero means form the base line from which scores of each observation on a particular variable was compared.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF THE RESULTS

4.1. Introduction

The purpose of the study is to assess the extent of community participation in the sustainability of rural infrastructural development. A total of one hundred and seventy four (174) were valid for analysis and the discussion is done in the context of the theoretical approach to community participation. Data was collected, collated, analyzed and presented in line with the stated objectives. Analysis is done in subsections including socio-demographic characteristics of respondents, level of participation in infrastructures, benefits to rural dwellers and others are discussed.

4.2. Socio-Economic Characteristics of the Respondents

Socio-demographic and economic characteristic of respondents include gender, age, marital status, education and occupation. These characteristics are indirect pointers to bases for participation in rural infrastructures at the local level. They are subsequently examined.

4.2.1. Gender of respondents

Table 4.1 illustrated that 72.4% of the respondents were males and only 27% were females. The low percentage of females might be attributed to the fact that men are more sensitive to developmental issues than women and therefore, readily availed them selves to provide information needed.

Table 4.1 Gender of respondents

	Riyom		Bachit		Ganawuri		Total	
Gender	Freq	%	Freq	%	Freq	%	Freq	%
Male	51	68.0	21	70.0	54	78.3	126	72.4
Female	24	32.0	9	30.0	14	20.3	47	27.0
No response	-	-	-	-	1	1.4	1	.6
Total	75	100	30	100	69	100	174	100

Source: Field survey (2012)

Comparing the districts, it is clear that male respondents were higher in each of the districts of the study area, with Ganawuri having the highest constituting 78.3% of male respondents.

4.2.2. Age of respondents

Table 4.2 analyzed the age distribution of respondents which varied widely. Of these respondents, only 2.9% fell below the ages of 20 years; 38.5% between the ages of 21 to 30 years and 36.2% were between the 31 to 40 years.

Table 4.2 Age of respondents

	Riyom		Bachit		Ganawuri		Total	
Age Group	Freq	%	Freq	%	Freq	%	Freq	%
- 20 yrs	-	-	2	3.3	4	5.8	5	2.9
21-30 yrs	27	36.0	12	40.0	28	40.6	67	38.5
31-40 yrs	24	32.0	14	46.7	25	36.2	63	36.2
41-50 yrs	21	28.0	-	-	9	13.0	30	17.2
Above 50 yrs	3	4.0	3	10.0	3	4.3	9	5.2
Total	75	100	30	100	69	100	174	100

Source: Field survey (2012)

Also, 17.2% of respondents were also between 41 and 50. The fact that more respondents fell between 21 to 30 and 31 to 40 interval of age simply explains the full involvement of the active age group in community participation. Regardless of this age difference, all respondents revealed a positive attitude towards community participation. Comparing the districts, the active group took the lead in each of these districts with Riyom still having a significant percentage of respondents from 41 to 50 years old.

4.2.3. Marital status of respondents

As reflected on table 4.3, 57.5% of respondents are married while 36.2% are not married. There are only few widowed and divorced respondents with only 5.3% no response. A comparison of the districts put Ganawuri with the highest percent of married respondents while Bachit with the highest percent of single respondents.

Table 4.3 Marital status of respondents

	Riyom		**Bachit**		**Ganawuri**		**Total**	
Marital status	Freq	%	Freq	%	Freq	%	Freq	%
Single	25	33.3	13	43.3	25	36.2	63	36.2
Widowed	1	1.3	3	10.0	-	-	4	2.3
Married	44	58.7	14	46.7	42	60.9	100	57.5
Divorced	1	1.3	-	-	-	-	1	.6
No response	4	5.3	-	-	2	2.9	6	3.4
Total	75	100	30	100	69	100	174	100

Source: Field survey (2012)

4.2.4. Educational level of respondents

Table 4.4 presented that 68.4% respondents have attended tertiary institutions while 19.5% attended up to secondary level. This goes along to explain the level of literacy in the study area, even though this categories were the ones that were more capable of filling the questionnaires. The researcher understands that the general level of education of the respondents has a significant relationship to their perception of community participation. Looking through the districts, those with tertiary education are the highest category with a significant percent in secondary level in Bachit district.

Table 4.4 Educational level of respondents

	Riyom		**Bachit**		**Ganawuri**		**Total**	
Education	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
No formal edu.	-	-	4	13.3	-	-	4	2.3
Primary	4	5.3	2	6.7	4	5.8	10	5.7
Secondary	16	21.3	8	26.7	10	14.5	3	19.5
Tertiary	54	72.0	13	43.3	52	78.4	119	68.4
Adult education	-	-	3	10.0	2	2.9	5	2.9
No response	1	1.3	-	-	1	1.4	2	1.1
Total	75	100	30	100	69	100	174	100

Source: Field survey (2012)

4.2.5. Occupation of respondents

One major characteristic of rural dwellers is their occupation which is mostly subsistence farming

Table 4.5 Occupation of respondents

	Riyom		Bachit		Ganawuri		Total	
Occupation	**Fre**	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**
Farmer	16	21.3	8	26.7	7	10.1	31	17.8
Civil servant	25	33.3	12	40.0	32	46.4	69	39.7
Artisan	4	5.3	-	-	3	4.3	7	4.0
Trader	6	8.0	6	20.0	4	5.8	16	9.2
Others	17	22.7	4	13.3	22	31.9	43	24.7
No response	7	9.3	-	-	1	1.4	8	4.6
Total	75	100	30	100	69	100	174	100

Source: Field survey (2012)

. Table 4.5 presented that 39.7% of the respondents are civil servants, supporting the high percentage of respondents who attained tertiary educational level while 24.7% and 17% are artisan and farmers respectively. An important observation was the presence of civil servants during the study period as a result of the workers strike at that time which explains their high percentage. The 24% other clearly stated that they are both farmers and traders at the same time. One can conclude the study area is a semi-rural area than completely a rural area.

4.3 **Variation in Infrastructural Facilities among the Communities**

4.3.1 Distribution and variation of infrastructural facilities

The result of the Z-score analytical technique is presented in table 4.6. The first column indicates the names of the communities in Riyom LGA; the other ten columns show the Z-score of the infrastructural variables. The last column showed the summation of Z-scores, known as the composite score.

Table 4.6 reveals that 4 out of the 9 communities in Riyom LGA are advantaged while the remaining five are disadvantaged as far as the distribution of infrastructural facilities are concerned. The composite score values of the advantaged areas range from 0.03 to 14.4. While Bum community enjoyed the least of the facilities with a score of 0.03, Hoss community in Riyom district enjoyed the maximum benefits from the facilities with a score value of 14.40. Tse/Gura in Ganawuri district ranks second in the order of infrastructural availability with a score of 13.58 while Riyom community came third with a score value of 4.63.

Very important is the scores of Hoss and Tse/Gura communities which are in multiple folds compared with other communities. Only Hoss was advantaged in terms of sport and recreational facilities while Tse/Gura is advantaged in agricultural facilities which are even damaged. It is worth noting that no community has positive scores in all the infrastructures, in other words communities are disadvantaged in at least two of the infrastructural categorization.

At the other side, five of the communities suffered different levels of disadvantages. Their composite score ranges from -3.50, -3.92, -4.98, -7.25 and -7.90 representing Sharubutu, Wereng, Fangroi, Fang and Tomgangare communities respectively. It is observed that Fang and Tomgangare are found to be disadvantaged in all the infrastructural variables and are the least advantaged communities all from Bachit district. The result clearly revealed the spatial variation in infrastructure among the communities indicating the varying degree or infrastructural distribution in Riyom LGA. While Hoss and Tse/Gura are advantaged, Tomgangare and fang fall among the least advantaged.

Table 4.6 Infrastructural distribution by Z-scores Values

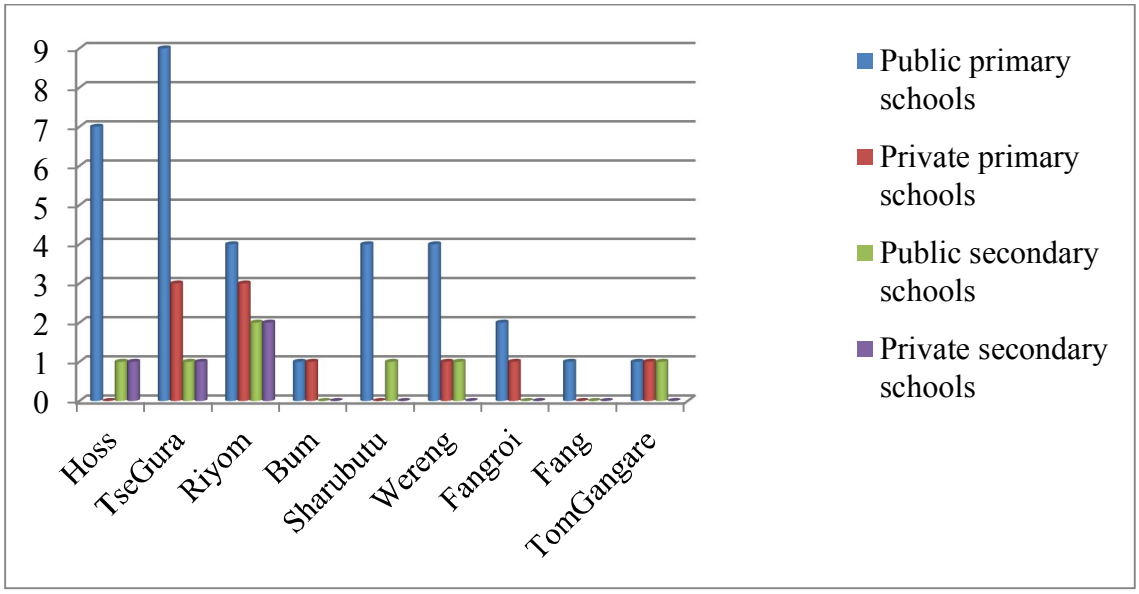
Localities	School	Health	Water	Transport infrastructure	Market	Sport/ recreation	Agric. infrastructures	Com. Hall	Palace	∑ scores	Rank
Hoss	0.17	0.39	0.10	-0.07	3.18	4.09	-1.03	4.44	3.19	14.40	1
Tse/gura	0.48	0.77	0.58	1.97	3.18	-0.46	9.23	-1.11	-1.06	13.58	2
Riyom	0.23	0.75	-0.20	0.52	-1.36	-0.46	-1.03	4.44	1.06	4.63	3
Bum	-0.23	0.00	-0.02	0.76	3.18	-0.46	-1.03	-1.11	-1.06	0.03	4
Sharubutu	-0.06	0.00	0.16	-0.70	-1.36	-0.46	-1.03	-1.11	1.06	-3.50	5
Wereng	0.00	-0.39	0.04	-0.67	-1.36	-0.46	-1.03	-1.11	1.06	-3.92	6
Fangroi	-0.17	-0.19	-0.26	0.66	-1.36	-0.46	-1.03	-1.11	-1.06	-4.98	7
Fang	-0.28	-0.39	-0.14	-1.42	-1.36	-0.46	-1.03	-1.11	-1.06	-7.25	8
Tom/ Gangare	-0.17	-0.58	-0.20	-1.93	-1.36	-0.46	-1.03	-1.11	-1.06	-7.90	9

Source: Field survey (2012)

4.3.2. Patterns of infrastructural facilities distribution in communities

Figure 3 present graphically the distribution of educational infrastructure in the study area. The educational infrastructures are schools which are categorized into public primary schools, private primary schools, public secondary schools and public private schools.

Figure 3: Distribution of educational infrastructures

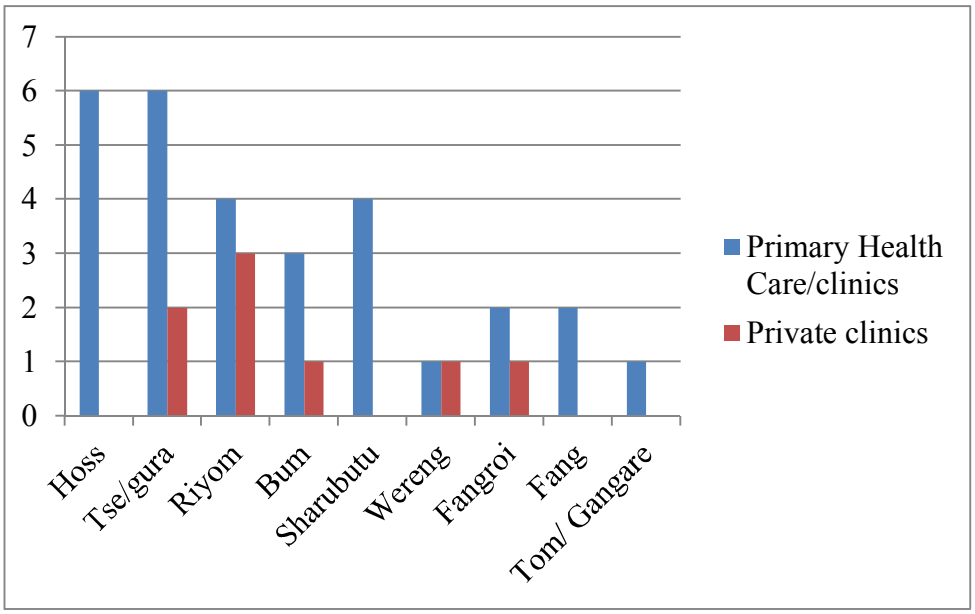


Source: Field survey (2012)

Figure 3 shows the pattern of distribution of schools in the study area. The categories of schools vary in the 9 communities with Tse/Gura the most favoured in schools with 9 public primary schools, 3 private primary schools and a public and a private school in the community. This is followed by Riyom community with 4 public primary schools, 3 private primary schools, a public secondary school and a vocational school. Hoss has about 7 primary schools and a public and private secondary school all together. The above mentioned communities are the most advantaged in terms of

educational infrastructure distribution, while Fang, Fangroi and Tom-Gangare are the least disadvantaged communities followed by Wereng, Sharubutu and Bum.

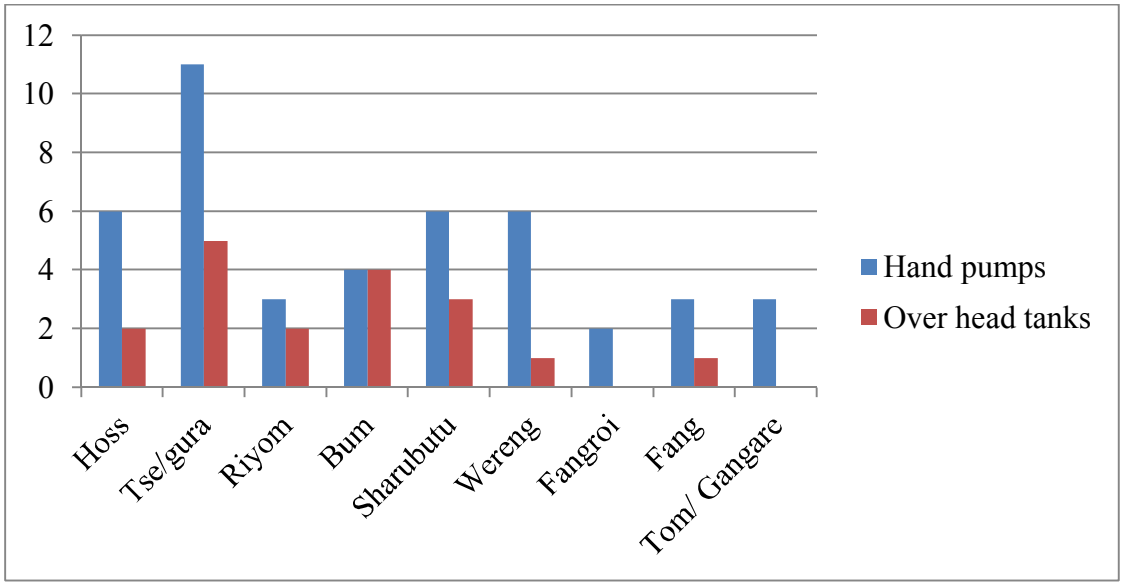
Figure 4: Distribution of health infrastructures



Source: Field survey (2012)

Figure 4 presents the pattern of health infrastructure in the study area with Hoss, Tse/Gura and Riyom highly advantaged. Tse/Gura has 6 clinics and 2 private clinics; Riyom has 4 PHC centres and 3 private clinics, and Hoss with a total number of 6 PHC centers. The other five communities are disadvantage in terms of health infrastructures with Wereng, Fang and Gangare constituting the least disadvantaged. One out of the two public health centers in Fangroi is abandoned and not functioning.

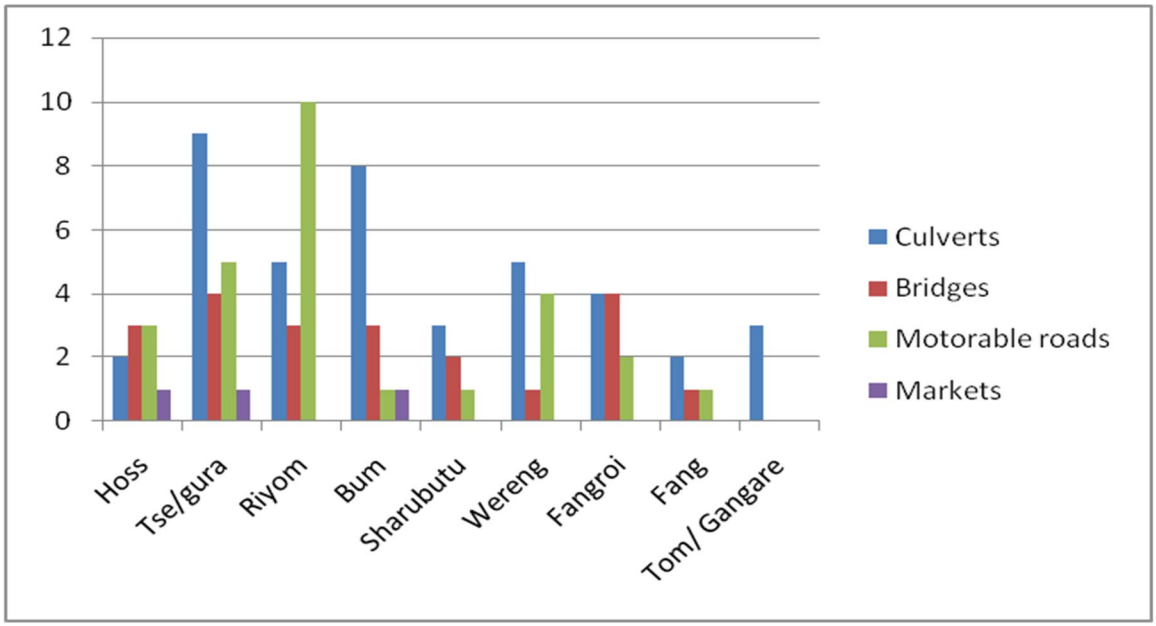
Figure 5: Distribution of water infrastructures



Source: Field survey (2012)

Figure 5 presents the distribution of water related infrastructure in the 9 communities of the study area. The graph indicated that Tse/gura have the highest sources of potable water having 11 hand pumps and 5 over-head tanks. It is worth noting that 4 out of the 5 over head tanks are not functioning and abandoned with few hand pumps. Sharubutu community is next among the advantaged community in respect to water infrastructure with about 6 hand pumps and 3 over-head tanks all functioning. Hoss has 6 Manual pumps and 2 overhead tanks, while 1 out of the two overhead tanks in Riyom is not working. There are about 6 manual pumps in Wereng but 3 of them are not completed while 1 is abandoned. Fangroi and fang are the least advantage communities with 2 hand pumps and 3 hand pumps respectively. The result indicates that most of the communities are short of functional water infrastructure.

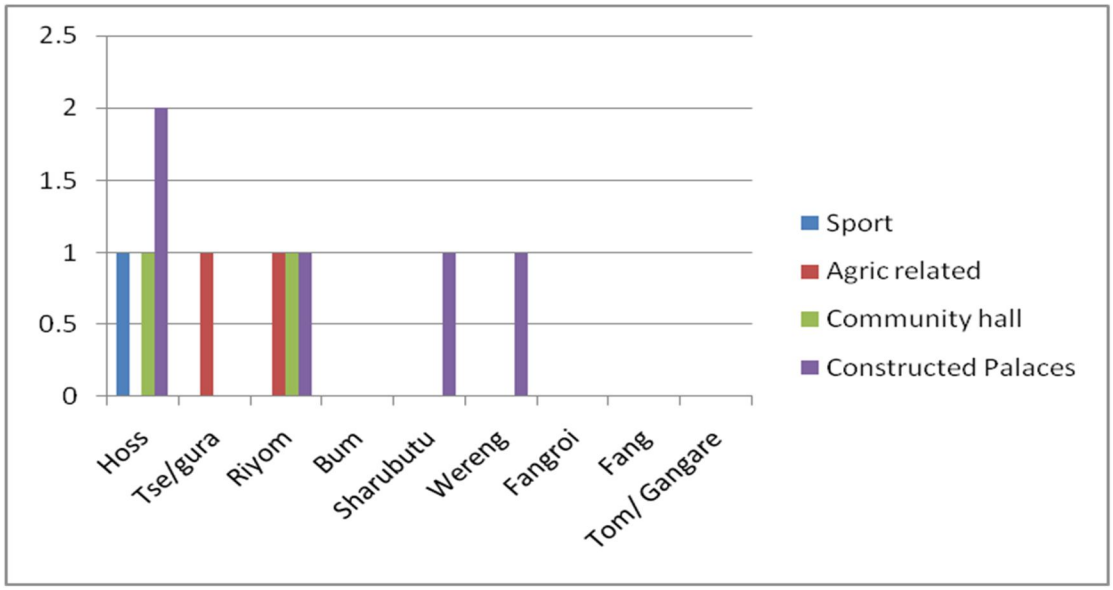
Figure 6: Market and road related infrastructure



Source: Field survey (2012)

The pattern of distribution of road and market infrastructure varied in the 9 communities as presented in Figure 6. Most of the road infrastructures are located in Tse/gura of Ganawuri district. Tse/gura has 9 culverts, 4 bridges, 1tarred road and 4 un tarred roads not well constructed. Riyom is next with 5 culverts 3 bridges, 7 tarred roads and 3 un-tarred roads. Tomgangare is the most disadvantage community with only 3 culverts then followed by fang all from Bachit district. A total of 4 communities are disadvantage in terms of road related infrastructure. Figure 6 also presented the pattern of market distribution in the study area with Hoss, Tse/gura and Bum having markets in their communities while the rest of the communities are disadvantaged without a functional market. This has an effect on the economic activities of the study area as they depend on farming and other forms of trade as well.

Figure 7: Distribution of Sport, Agric and community related structures



Source: Field survey (2012)

Figure 7 indicated that only Hoss community has a mini stadium and the only sporting infrastructure in the whole study area. There is no any other sporting and recreational infrastructure except the local football pitches used by most of the young members of community for football. This shows that most of the communities are in need of sporting and other recreational facilities in the study area. In terms of agricultural related infrastructure, it is only Tse/gura that has an irrigated dam which unfortunately is now abandoned and non functional, while a grain reserve storage in Riyom which is abandoned as well. Apart from that, no any suitable agric related infrastructure is found in any of the communities, which is detrimental to the agricultural development of most farmers in the study area. Figure 7 also show that there are only 2 communities with community halls which include Hoss and Riyom while the other communities have no community halls for their meeting and other activities in the community. It is worth knowing that these 2 communities are all in Riyom district indicating that other districts

are without this important structure. The pattern of distribution of palaces as a social/institutional infrastructure in the study area for their district heads as provided either by government is also presented with Hoss having 2 palaces with one for Riyom, wereng and Sharubutu respectively. Only that of Hoss and Sharubutu are completed and in use but the others are abandoned hence not in use. These palaces are important as they are said to have been provided by government to these traditional rulers for easy administration of their subjects.

A cross view at the distribution patterns of these components infrastructural facilities put Tse/Gura and Hoss community in Ganawuri and Riyom district respectively to have maximum number of infrastructural facilities. It is only Hoss that is solely advantaged in terms of sports and recreational facilities while Tse/Gura is advantaged in agricultural facilities. On the aggregate five of the communities suffered different levels of under-privileges in terms of infrastructural distribution. The affected areas include Sharubutu, Wereng, Fangroi, Fang and Tomgangare in that descending order of distribution respectively. It is observed that Fang and Tomgangare are found to be disadvantaged in all the infrastructural facilities and are the least advantaged communities all from Bachit district. It is not just to have these infrastructures, but how well do they function? This is well seen in some of the communities where the available infrastructures are abandoned and uncompleted as well. Infrastructures like irrigated dam, grain reserve storage in Tse/Gura and Riyom respectively are abandoned, while most of the available over head tanks are abandoned too. The study showed clearly the unequal pattern of distribution of infrastructures in the study area.

4.4 Level of Community Participation in Infrastructural Projects

According to table 4.7, majority of respondents (26.4%) reported that they only receive information about any project development, 23.6% respondents reported they are only consulted with in development project, while another 17.2% respondents reported that they do not participate in any form. This indicates that people are committed with their personal matters than participating in the process of community infrastructural development.

Table 4.7 Distribution on the level of participation in infrastructural development

Level of participation in projects	Respondents district						Total	
	Bachit		Ganawuri		Riyom			
	Freq.	%	Freq.	%	Freq	%	Freq.	%
Take total control	5	16.7	4	5.8	1	1.3	10	5.7
Delegation of authority	0	.0	13	18.8	12	16.0	25	14.4
Plan jointly with others	1	3.3	5	7.2	5	6.7	11	6.3
Advise	2	6.7	5	7.2	4	5.3	11	6.3
Consultation	10	33.3	16	23.2	15	20.0	41	23.6
Being informed only	8	26.7	11	15.9	27	36.0	46	26.4
Participate in none	4	13.3	15	21.7	11	14.7	30	17.2
Total	30	100	69	100	75	100	174	100

Source: Field survey (2012)

The number of respondents who indicated that they plan jointly with development partners was only 6.3%, while those whose advice was only sought were 6.3% as well. About 5.7% of the total sample took control of activities with 14.4% having only delegated authority.

A cross examination of the districts analysis indicated that beneficiaries are mostly consulted in the case of Bachit and Ganawuri districts, while in Riyom district, a larger

percentage indicated they are mainly informed about development projects that affects them. Drawing a conclusion from the analysis, one can rightly say that the level of participation is low in the study area using the continuum of participation from the least form of participation to the highest form of participation.

4.4.1 Variation in Community Participation with Project Providers

It is pertinent that all the forms of participation indicated by respondents in this study are mostly on Self-help projects than on government or NGOs projects. Table 4.8 analyzed the category of projects in which the communities participate. From the analysis, it is clear that respondents indicated that they mostly participate in self help projects than government or NGOs initiated projects. A total of 50% respondents participate on self help project against 6.3% and 3.4% for NGOs and Government respectively. This indicates that respondents' participation is more on self-help projects, which reflect their needs and aspirations. It perhaps also gives a sense of self actualization and achievement to the rural dwellers.

Table 4.8. Participation in infrastructural projects

Sponsoring agency	Frequency	Percent
Government	6	3.4
Non-Governmental Organizations	11	6.3
Self help projects	87	50.0
The three above	63	36.2
Other	2	1.1
No response	5	2.9
Total	174	100

Source: Field survey (2012)

4.5. Community Contribution to Sustainability of Infrastructures

Theron (2005:123) observed that community participation should lead to sustainable development. The major issue confronting rural development programmes in Nigeria was absence of sustainability that is driven by participation of programme beneficiaries.

Table 4.9 Community contributions to sustainability of infrastructures

Modes of sustainability	Frequency	%
Use of vigilante groups	24	13.8
Use of maintenance committees	21	12.1
Providing security and proper usage	26	14.9
Contributing funds for repairs	58	33.3
Completing abandoned projects	19	10.9
Others	5	2.9
No response	21	12.1
Total	174	100

Source: Field survey (2012)

The study found out the various ways the communities ensure sustainability of infrastructures. These modes of sustainability are analyzed in table 4.9.

Financial contributions by community members to replace and or repair worn out or damaged parts of infrastructures of enormous importance to respondents. They only contribute funds to repair or replace parts of projects that are priorities to them, therefore calling on the need to involve them in needs identification. The highest number of respondents constituting 33.3% established this fact. Next on the modes of ensuring sustainability as claimed by 14.9% is provision of security and maintenance of some infrastructures that add meaning to their lives. Again, 13.8% of respondents ensure sustainability through establishing vigilante group called '*Yan-Banga'* to also assist in keeping vandals away. In order to safeguard facilities and ensure proper usage by community members, about 12.1% attested to the establishment of maintenance

committees who take care of infrastructures in their respective communities. The other ways includes: - completing abandoned projects by government or development partners which are within the reach of rural dwellers in their respective communities.

4.5.1. Analysis of sustainability using some indicators

Table 4.10 assessed infrastructural sustainability using the indicators of projects utilization, performance and accessibility, extent of coverage, physical and structural conditions and lastly lifespan or test of time.

Table 4.10. Perception of sustainability of rural projects

Variables	**Poor**		**Average**		**Good**		**V. good**		**Excellent**		**Total**	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%	Freq	%
Infrastructural utilization	21	12.1	87	50	42	24.1	16	9.2	8	4.6	174	100
Performance /accessibility	23	61	61	35.1	68	39.1	21	12.1	1	0.6	174	100
Extent of coverage	33	80	80	46	40	23	20	11.4	1	0.6	174	100
Physical condition	33	62	62	35.6	55	31.6	21	12.1	3	1.7	174	100
Life span	38	73	73	42	42	24.1	14	8	7	4.0	174	100
TOTAL	30	17	73	42	49	29	18	10	4	2	174	100

Source: Field survey (2012)

On infrastructural utilization, a total of 50% respondents ranked it on the average, while next to it was 24.1% who ranked it good. This indicated that sustainability is low considering infrastructural utilization.

On infrastructural performance and accessibility, 39.1% of respondents ranked it as good, while next to it was 35.1% respondent who ranked on the average. This indicated that sustainability using this indicator is better than infrastructural utilization.

Using infrastructural extent of coverage, 46.0% of respondents claimed it average, while 23.0% ranked it as good. This indicates that sustainability using the extent of coverage is low.

In terms of infrastructures physical/structural conditions, 35.6% claimed it on the average, while next to the claim is 31.6% who indicated it as good. This summarily indicated that sustainability using this indicator is quite low. Lastly, on infrastructural life span or years they functionally existed as expected, 42.0% ranked it on the average while 24.1% claimed it as good. This also indicated that, infrastructures do not last long as expected which is a resultant of lack of participation of community people which in turns bring about un-sustainability of these infrastructures.

4.6. Constraints to Community Participation in Infrastructural Development

An objective of the study is to examine the constraints or challenges to community participation in infrastructure in the study area. Table 4.11 analyzed the major constraints to community participation in the study area. A larger part of the respondents constituting 29.9% who attested to the fact, that government and development partners do not encourage them from participation in most cases. About 19.0% went for poor leadership as a major constraint while 13.8% respondents are of the opinion that illiteracy or low level of education is another constraint to participation. More so, 16%, 13.2% and 7.5% respondents attributed their constraints to poverty, lack of awareness and others respectively.

Table 4.11: Constraints to community participation in infrastructural projects

Constraints	Frequency	%
Lack of awareness	23	13.2
Poor leadership in communities	33	19.0
Illiteracy	24	13.8
poverty/ lack of funds	29	16.7
No encouragement from government	52	29.9
Others	13	7.5
Total	174	100.

Source: Field survey (2012)

Kakumba and Nsingo (2008) assert that lack of sustainability in development projects occurred as a result of low level of education and poor management abilities. Indeed these points fairly affect the communities in the study area, as it explained the challenges mention by the participants.

In a Focus Group Discussion (FGD) with the Riyom Community Development Trust (RCDT), the group concluded through their chairman that lack of political will and continuity of project by successive government majorly affect infrastructural development in the area as projects undertaken by previous government have been abandoned and not completed by the present administration due to the change in government. Also, another FGD with an NGO known as ' Nirat Services' raised another challenge where contractors bring in labour or employ labourers from outside instead of using the available capable community members where necessary to ensure support for these projects. Further more, the Divine Sisters during the FGD lamented the attitude of government imposition of development on the people without seeking their consent on their prioritized needs in the community. Government often without any consultation

provided infrastructures without taking cognizance of beneficiaries' inputs in their communities.

The Aten Youth Movement in the Ganawuri district during an FGD session complained more of un-sustainability of the few infrastructures managed within their communities. According to the group, most of the boreholes are not constructed to standard and development partners and government don't train community people on maintenance of these boreholes and other infrastructures.

Some other constraints in Table 4.11 identified by 7.5% of the respondents are: Lack of trained personnel on project maintenance; politicization of projects and sentiment in project locations were a section of the community will revolt in the participation and maintenance as well; lack of interest on the part of community members or poor turn-up; internal crisis and violence that disrupt completion of projects; poor or inadequate communication with community members; technical complexity of certain projects; Choice of projects and variation between communal needs; wrong site selection of some projects and its naming; language difference between project providers/development planners and rural dwellers; and forceful land acquisition from community members. Government take their lands without their consent and they are not always compensated for their destroyed farm produce

4.7 Testing of the Hypothesis

The null hypothesis put forward in this is: $\boldsymbol{H_0}$**.** There is no significant relationship in the level of community participation in infrastructural development among rural people in

the study area. The Chi-square analysis was used to test this hypothesis and the result is presented in Table 4.12.

Table 4.12. Chi-Square result of the second hypothesis

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.380[a]	12	0.025

Table 4.12 showed the Chi-square analysis. Since the calculated Chi-square value (23.380) is greater than the critical value (21.03) at 0.05 (5%) significant level, H_O is rejected. This means that there is an association i.e. there is a significant difference in the level of community participation in infrastructural development among rural people in the study area. The Chi-square result presents an association meaning that a significant difference exists in the level of community participation in the study area.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter presents how the research aim and objectives of the study were achieved. It is particularly focused on the conclusion and recommendations that will intend to help community members and the Riyom local government council to have a thorough understanding of meaningful community participation.

5.2. Summary of Findings

The distribution of infrastructure varies in space across the nine (9) communities in the study area. The findings revealed a high variation in infrastructures across the sample communities. Four communities (Hoss, Tse/Gura, Riyom and Bum) were advantaged with Hoss and Tse/gura having a multiple fold compared to others, while the remaining 5 communities' constituting Sharubutu, Wereng, Fangroi, Fang and Tom-gangare were disadvantaged with Tom-gangare having the least infrastructures. The Z-score result reveals that 4 out of the 9 communities in Riyom LGA are advantaged while the remaining five are disadvantaged as far as the distribution of infrastructural facilities are concerned. The composite score values of the advantaged areas range from 0.03 to 14.4. While Bum community enjoyed the least of the facilities with a score of 0.03, Hoss community in Riyom district enjoyed the maximum benefits from the facilities with a score value of 14.40. Tse/Gura in Ganawuri district ranks second in the order of infrastructural availability with a score of 13.58 while Riyom community came third with a score value of 4.63. At the other side, five of the communities suffered different levels

of disadvantages. Their composite score ranges from -3.50, -3.92, -4.98, -7.25 and -7.90 representing Sharubutu, Wereng, Fangroi, Fang and Tomgangare communities respectively. It is observed that Fang and Tomgangare are found to be disadvantaged in all the infrastructural variables and are the least advantaged communities all from Bachit district.

The outcome of the study also indicated that community participation in Riyom LGA is limited to receiving information, been consulted and not participating at all constituting 26.4%, 23.6% and 17.2% respectively. These levels of participation are the least levels of participation using the ladder of participation, which simply puts the level of participation of the study area at a low level.

The study also established that rural people sustain infrastructures as 69% of respondents attested to that. More over, the study found out the various ways the communities ensure sustainability of infrastructures. Among these sustainability methods include: Financial contributions to replace and maintain infrastructures, providing security for these infrastructures, safeguarding facilities and ensuring proper usage, establishment of maintenance committees to take care of infrastructures, using of vigilante group called '*Yan Banga'* to also assist in keeping vandals away and ensuring the completion of abandoned projects within their reach in their respective communities.

From the ranking of the constraints to community participation in sustainability of projects, 29.9% representing the majority claimed that government and development partners do not encourage them in participation. Other vital constraints found are: poor leadership within communities and poverty; Lack of trained personnel on project maintenance; Politicization of projects and sentiment in project locations; Lack of interest

on the part of community members or poor turn-up; Gender inequality in involvement; Internal crisis and violence that disrupt completion of projects; Poor or inadequate communication with community members; technical complexity of certain projects; Choice of projects and variation between communal needs; wrong site selection of some projects and its naming among others.

It is obvious from the Chi-square analysis that there is a significant relationship in the level of community participation in infrastructural development among rural people in the study area.

5.3. Conclusion

Most community development activities meant for improving the quality of life of rural people are implemented by development partners, without active involvement of community members. It can be concluded that development efforts in the study area do not allow the rural dwellers an opportunity to participate in projects that is for their well-being, hence un-sustainability of most projects. Indeed, Community participation as a concept and practice can no longer be avoided by government or excluded from sustainable development processes. However, with the situation in the study area, it is noted that government and development partners have not really mobilized and created awareness to beneficiaries on how exactly community participation should be addressed and achieved. Proper channels to implement necessary community participation strategies should be developed and applied in order to deal with the constraints to community participation.

5.4. Recommendations

A cursory look into the study, there are various information's that can guide and direct our socio-economic planners, policy makers and development agencies, which should be considered in the efforts to strengthen community participation in sustainability of projects in Riyom LGA.

In order to achieve effective community participation, development partners should ensure a process whereby rural communities should become more conscious of their own situation, carefully understand rural socio-economic reality around them, have mutual understanding amongst community members, knowing their problems, the causes of the problems, and what measures they themselves can take to meet the challenges.

Very instrumental is the mobilization and creating awareness through appropriate avenues like mass media, town hall meetings, traditional authorities, and so on, to rural people on the need to always participate in their own development. Development agencies should involve communities in project planning and implementation by informing every member and not a selected few on developmental efforts. Also, policy makers as stated by respondents should disregard political differences and be united by employing members of the community to handle their projects for safety and sustainability rather than bringing in manual labour from outsiders. This tends to increase the dissociation from such projects.

Moreover, development planners should respect rural dwellers opinions and allow them a choice on their priority needs and type of projects. This will reduce alienation and non participation in project development. Again, development partners should recognize

existing CBOs in every community and should reward participating communities with more development projects in order to encourage active participation.

More so, politicians should stop politicizing projects location in communities and community or group leaders should be transparent in dealing with public funds as well as give proper accountability of all funds contributed for any project or infrastructural development. This is very important for leaders of CBOs who deter participation on community initiated projects through their corrupt tendencies.

The provision and sustainability of rural infrastructure is crucial to rural socio-economic transformation, hence there is need to generate an inventory of infrastructural facilities not only within the study area but also for the country. The spatial pattern of distribution of infrastructural facilities would clearly show areas of deprivation and neglect. It will serve as an eye-opener to government and come to the assistance of such community as partners in progress.

REFERENCES

Abumere, S.I. (2002). Rural infrastructure and the development process in rural Nigeria. Research Report No. 36, Development Policy Centre, Ibadan, Nigeria.

Akpomunie, O. B. (2010), "Self-help as a strategy for rural development in Nigeria: A bottom-up approach" Journal of alternative perspectives in the social science Vol.2. No.1 Pp.88-111.

Anyanwu, C.N. (1999) *Introduction to Community Development:* Gabesther Educational Publishers. pp. (63-85)

Asian Productivity Organization (APO) (2002). A Planning Method for Community Development in Ghazala, M. and Vijayendra, R. (2004). "Community-Base and –Driven Development: *The World Bank Research Observer. Vol.19, no.1.* The International Bank for Reconstruction and Development. The World Bank.

Background Information, Riyom Local Government Plateau State Nigeria (2005). NIYI Press, Jos.

Bailur, S. (2007). Community Participation in rural information system projects. The Complexities of Community Participation in ICT for Development Projects: Case of "Our Voices." London School of Economics. Available online: *http://www.ifipwg94.org.br/fullpapers /R0010-1.pdf. [July 2009]*

Blackman, R. (2003). Project cycle management: Tearfund Teddington

Brager, G. and Specht, H (1973). Community organizing. New York, Columbia University Press.

Breur, D. (1999), Community Participation in Local Health and Sustainable Development: a working document on approaches and techniques. Adopted by the WHO Regional Committee for Europe at its forty-eight session, Copenhagen.

Burkey, S. (1993). People First: Guide to Self-Reliant Participatory Rural development. New Jersey: Zed Books.

Cernea M.M and Ayse K (1997). Social Assessment for Better Development*:* Case Studies in Russia and Central Asia. Washington DC. The International Bank for Reconstruction and Development. The World Bank.

Cheetham, N., (2002). Community participation: What is it? *Transitions,* 14(3): 4.

Creighton, J.L. (2005). The Public Participation Handbook. Making Better Decisions through Citizen Involvement. San Francisco: Jossey-Bass.

Fokane, M.E. (2008). An Assessment of Rosendal-Mautse Participation in the IDP Process of Dihlabeng Municipality. Unpublished master's thesis. Stellenbosch: University of Stellenbosch.

Food and Agricultural Organisation (FAO) (2005). Comprehensive Africa Agricultural Development Programme. FAO Corporate Document Repository. Accessed at wvvvv.fap.org On 10th November 2006

Food and Agricultural Organization (FAO) (1991). Plan of Action for People's Participation in Rural Development: Twenty-Sixth Session, FAO Conference. Rome, 9-28, Nov.

Hamilton, E., (1992). Adult Education for community development, New York: Greenwood Press, pp: 47-69.

Isham, J and Satu, K. (1999). *"Institutional Determinant of the impact of community-Base water services:* Evidence from Sri-Lanka and India" Working paper 236. University of Maryland, Center for Institutional Reform and the informal Sector, college park.Md.

Kakumba, U. and Nsingo, S. 2008. Citizen participation in local government and the process of rural development: The rhetoric and reality in Uganda. *Journal of public Administration 43(2): 107-123.*

Katz, T and Sera, J. (1997). *Making Rural Water Supply Sustainable:* Recommendations from a Global Study" water and sanitation program, Washington D.C.

Kleemeier, E (2000). The impact of participation on sustainability: An Analysis of the Malawi Rural Piped Scheme Program, in *World Development Vol. 28, No. 5, pp.929-944.*

Kok, P., and Gelderbloem, D. (1994). Planning and People's Participation. Urbanisation: South Africa's Challenge. Pretoria: HSRC Publishers.

Korten DC. (1990). Getting to the 21st Century: Voluntary Action and Global Agenda. West Hartford, conn: kumarian

Korten, D. (1983). Community Organisation and Rural Development: A learning process approach. Public Administration Review.

Krejcie, R. V. and Morgan, D. W. (1970) "Determining Sample Size for Research Activities", Educational and Psychological Measurement,

Kumar, S. (2002). Methods for Community Participation. A Complete Guide for Practitioners. London: ITDG Publishers.

Lombard, A. (2005). *Community Work and Community Development.* Pretoria West: Haum Tertiary

Marais, H., Everatt, D., & Dube, N. (2007). *The depth and quality of public participation in the integrated development planning process in Gauteng.* Research and written for the Gauteng Provincial Department of Local Government. Johannesburg.

Mausuri, G. and V. Rao. (2004). "Community based and Driven Development: A critical Review." *The World Bank Research Observer.*

Mc-chener, V. (1998) "The Participatory Approach: Contradiction and Co-Optation in Burkina Faso", *World Development, 26 (12), pp. 2105-18.*\

Munasinghe, M. (1993), Environmental Economics and Sustainable Development, *No 3, The World Bank, Washington, DC.*

Nampila, T. (2005). Assessing Community Participation: The Huidare informal settlement. Master of Arts thesis: Department of Social Work:University of Stellenbosch. Available (Online). http://www.google.co.za/search?hl=en&source=hp&q= Assessing+community +participation&meta [August 2009].

Nekwaya, J. H. (2007). Assessing Community Participation in Development Planning and Service Delivery. A case study of the Omusati Regional Council. Master of Sustainable Development and management: University of Stellenbosch. Available (Online). https://etd.sun.ac.za/bitstream/10019/690/1/Nekwaya%2c%20J.H.pdf[June 2009].

Norton, A and Stephen,T. (1994) "Participation in Poverty Assessments" *Participation Source Book, World Bank Washington, DC*

NPC, 2006. National Census Figure, National Population Commission, Abuja, Nigeria.

Nyemetu, R (1999) "Mobilizing Popular Participation in Development Planning". Trading Module Prepared For The Development Policy Centre Ibadan .

Oakley, P & Marsden, D. (1984). Approaches to participation in rural development. Geneva: International Labour Office Publications.

Oakley, P. & Marsden, D. (1991). Project with People: The Practice of Participation in Rural Development. International Labour Office Publications, Geneva

Ogueri, E.I. (2006). Evaluation of Rural Development Programmes of Multinational Oil Corporations in Niger Delta: The Case of Bayelsa and Rivers States of Nigeria. Unpublished Ph.D dissertation of the Department of Rural Sociology and Extension, Michael Okpara University of Agriculture, Umudike, Nigeria.

Olaleye, Y.L. (2010)," The contributions of the Doctrine of Citizens Participation in Organization and Implementation of Community Development Project" *European Journal of Scientific Research: http://www.eurojournal.com/ejsr.htm/.*

Olukosi, J.O. (2002). The Application of Community Driven Development Approach in Nigeria. Lead paper sensitization, mobilization workshop for federal, state and local Government Staff in FGN/IFAD community Based Agricultural and Rural Development.

Ottong G. J. (2000) "Nigeria peoples and their culture" in Nigeria: A People United, A Future Assumed: A compendium volume 1, Gabuno publishing company limited.

Progress Report (2010), Community Development Unit, Social Services Department Riyom Local Government Council.

Rahman, A.M.D. (1993). People's Self-Development. Perspectives on Participatory Action Research. London: University Press.

Raniga, T. & Simpson, B. (2002). Community Participation: Rhetoric or Reality. Social Work*: A Professional Journal for the Social Worker, 38(2):182-190.*

Reid, J. N. (2000), Community Participation "How people power brings sustainable benefits to communities" USDA Rural Development office of Community Development.

Roux, M. (1995). New Dictionary of Social Work. Department of Social Work. Cape Town: CTP Book Printers (Pty) Ltd.

Simanowitz, A. (1997). Community participation/community-driven. Paper presented at a seminar on "Water and Sanitation for All: Partnerships and Innovations", 23rd WEDC Conference, Durban, South Africa.

Sproule, K. W. (1996). Community-based ecotourism development: Identifying partners in the process, The Ecotourism Equation: Measuring the Impacts. Bulletin Series, Yale School of Forestry and Environmental Studies, No. 99, New Haven, CT: Yale University, 233-250.

Steve, M and Olufemi, A. (2011), "Implementations of the ranking of Community Participation Strategies in Health Development*" Bangladesh e-Journal of Sociology, vol.8. No.2.pp 69-86*

Swanepoel, H. & De Beer, F. (2006). Community Development: Breaking the Circle of Poverty. 4th Edition. Johannesburg: Juta & Co.

Theron, F. (2005). Public Participation as a Micro-level Development Strategy, in Davids, F. Theron & K. J. Maphunye. Participatory Development in South Africa. A Development Management Perspective. Pretoria: Van Schaik Publishers.

Tshabalala, E.L. (2006). The Role of Community Participation in the Integrated Development Plan of Govan Mbeki Municipality. Department of Social Work and Criminology: University of Pretoria. Available (Online) http://www.up.ac.za/dspace/bitstream/2263/12247/1/ Tshabalala_Community%282009%29.pdf (July 2009)

UN Division for Sustainable Development (2005). Indicators for Sustainable Development – Review and Assessment, Background paper, New York.

United Nations (1981). Popular Participation as a Strategy for Planning Community Level Action and National Development. New York: United Nations.

World Bank (2003), *Reaching the Rural Poor. A Renewed Strategy for Rural Development,* Washington DC.

World Bank (2004). World Development Report: Making Services Work for Poor People. Washington DC: World Bank.

World Bank. (1996). World Bank Participation Sourcebook. Washington: world Bank.

World Bank. (2006). "Infrastructure at the crossroads: Lessons from 20 years of World Bank experience." Washington, DC, 1–9, 65–80.

World Commission on Environment and Development (WCED), (1987), Our Common Future. In Sustainability and the "struggles for existence" the critical role of metarphor in societies metabolism; edited by Tim Jackson *(Environmental Values 2003) 12: 289-316.* The White Horse Press.

Appendix I
Questionnaire

I am a postgraduate student from Ahmadu Bello University Zaria undertaking a research on community participation in rural infrastructural development in Riyom L.G.A of Plateau State.

- I would appreciate your willingness to assist in this research,
- Your contributions/personal information to this questionnaire will remain confidential,
- Please fill in your opinion on these questions and tick where necessary.

SECTION A
Socio-demographic characteristics of respondents

1) Gender: (a) Male (b) Female
2) Age: (a) under 20, (b) 21-30, (c) 31-40, (d) 41-50, (e) 51 and above
3) Marital status: (a) Single, (b) Widowed, (c) Married, (d) Divorced
4) Education level: (a) no formal education, (b) Primary, (c) Secondary, (d) Tertiary (e) adult education
5) Occupation: (a) Farmer (b) Civil servant (c) Artisan (d) Trader (e) others
6) District/community_____

SECTION B
Variation and distribution of infrastructure

1) What is your understanding of community participation in development projects?
   _____
   _____
2) Do you have knowledge on the existence of rural infrastructures in your community?
   (a) Yes (b) No
3) Can you please list the major infrastructural projects in your community and providers

	Projects	providers
a)	_____	_____
b)	_____	_____
c)	_____	_____
d)	_____	_____
e)	_____	_____

SECTION C
Level of participation in infrastructural development

1) Do you participate in projects development in your community?
   a. Yes (b) No

   If'No'why?

   _____

If'Yes'how?

_____

2) In your opinion, do members of community benefit from participating in rural projects?
   (a) Yes (b) No
   Please justify_____

3) Do Government/Development partners encourage participation of villagers in development project? (a) Yes (b) No

4) Indicate 'Yes' or 'No', on each of the under listed mode of participation in your community.

a) Involvement in meetings for initiating project (YES)(NO)
b) Implementing of project construction (YES) (NO)
c) Training on project maintenance and repair (YES) (NO)
d) Monitoring and securing projects (YES) (NO)
e) Project identification and choice (YES) (NO)
f) Manual labour provision during construction (YES) (NO)
g) Financial contribution among rural people (YES) (NO)
h) Any other(s) specify……

5) How can you characterize the level of participation in infrastructural development in your community?
   (a) Take control of activities
   (b) Have only delegated authority
   (c) Plan jointly
   (d) Can only advise
   (e) You are only consulted
   (f) You only receive information
   (g) None

6) In which type of project(s) do members of community participate?
   (a) Government
   (b) NGOs
   (c) Self-Help projects
   (d) All the above
   (e)Any other, specify_____

SECTION D

Sustainability of rural infrastructure

1) Do you think effective community participation can boost rural development in the area?

(a)Yes
(b)No
Please justify your answer_____

2) Which strategy or strategies can rural communities use to encourage meaningful participation in projects?_____
3) Is there any abandoned project(s) in your community?
(a) Yes
(b) No
4) If 'No', fill in below

Type	Providers	Year started	Year completed/utilized	Reasons for sustainability

5) What do you think is responsible for abandoned project in your community if any? (tick as many as applicable)
(a) Shortage of qualified staff
(b) Insufficient funds
(c) Lack of sustainability
(d) Non-involvement of community people
(e) Lack of interest on the part of community people

6) Do community members sustain projects?
(a) Yes
(b) No
If 'yes' how? _____
If 'no, why? _____
7) Please assess the sustainability of your community infrastructure using the following indicators (tick which is applicable)

INDICATORS	Poor (1)	Average(2)	good(3)	very good(4)	Excellent (5)
Infrastructural utilization					
Performance/accessibility					
Extent of coverage					
physical/structural conditions					
Infrastructural taste of time/ life span					

SECTION E

Constraints to community participation

1) What do you think hinders rural community participation in development projects?

   _____

   _____

2) What challenges in your opinion does the community face when participating in infrastructural development Process?

   a) _____
   b) _____
   c) _____
   d) _____

3) What should be done to improve community participation in project development in your community? _____

Appendix II

Focus group discussion checklist

- Name of CBO and objective
- the nature of their involvement in the past and present
- Mode of decision on community development and
- Sources of finance (probing on: if they secure government aid, on what type of project and how often and adequate?)
- How community participation is ensured
- Problems faced by these organizations in participating in infrastructural development.
- If there are abandoned projects in the community and why?
- The role played by community people in infrastructural development programmes
- How to improve community participation in rural infrastructural development
- How they ensure sustainability
- What problems hinder their participation of community members