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Research Project on

COMMUNITY AND STAKEHOLDERS' PARTICIPATION ON ROADS MAINTENANCE PROJECTS:

THE CASE OF OROMIYA ROADS AUTHORITY

A Research Project Submitted to Addis Ababa University School of Commerce in Partial Fulfillment of the Award of the Master's Degree in Project Management

Advisor: **Abdurezak Mohammed (Ph. D)**

By**: Alemayehu Denboba**

June, 2017

Addis Ababa, Ethiopia

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By Alemayehu Denboba

Approved by Board of Examiners

Advisor	Signature	Date
Examiner (External)	Signature	Date
Examiner (Internal)	Signature	Date

DECLARATION

I, the undersigned, declare that this research project entitled "COMMUNITY AND STAKEHOLDERS' PARTICIPATION ON ROADS MAINTENANCE PROJECTS: THE CASE OF OROMIYA ROADS AUTHORITY", is my original work and has not been presented for a degree in any other university or organization, and that all sources of materials used for the research project have been duly acknowledged.

Declared by:

Name: Alemayehu Denboba Dugassa

Signature: _____

Date _____

CERTIFICATE

This is to certify that this research project, "**Communities and Stakeholders' Participation on Roads Maintenance Projects: the case study of Oromiya Roads Authority**" undertaken by Alemayehu Denboba for the Partial fulfillment of the award of Master's degree in Project Management at Addis Ababa University graduate school, is an original work and not submitted earlier for any degree either at this university or any other university.

_____

Abdurezak M. (Ph.D.)
Research Project Advisor

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ABSTRACT

Roads are clearly a critical enabling condition for improving living conditions in rural areas. Maintenance of rural roads have only relatively recently received attention in development research. Production costs, employment creation, access to markets, and investment depend on sustainable quality of infrastructure, especially transport. The purpose of the study was to examine community and stakeholders' participation on maintenance of URRAP roads projects of Oromiya Roads Authority. The design that used in the research was descriptive survey. The target populations of the study were 40 respondents from Oromiya Roads Authority. The study used the census approach where all the members of the target population were included into the study sample. The study used both primary and secondary data collection methods. The primary data was collected using questionnaires and interviews. Secondary data was derived from the organization's records. The data from the completed questionnaires was studied, re-coded and entered into the computer using the Statistical Package for Social Sciences (SPSS) version 22. Descriptive statistics were employed to analyze quantitative data. The descriptive statistics included frequency counts, means and percentages. Qualitative data was analyzed qualitatively using content analysis based on analysis of meanings and implications emanating from respondents information and documented data. The results of the study showed that CSP on the success of URRAP roads construction in GTP I was high and they had participated more in cash and free labor contribution and their participation was decreasing. It was also evident that communities and stakeholders were not participated on maintenance of URRAP roads projects in GTP I and was monitored and followed up rarely. The recommendations include providing grass root capacity building and training for woredas and developing the management system of CSP, the improvement of the work integration and cooperation between ORA and other pertinent organizations and the support given to ORA by the administrative bodies in realizing the community and different stakeholders' participation on URRAP roads maintenance projects.

***Key words**: Community Participation, Maintenance, Roads, Road Maintenance, Rural Roads*

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ACRONYMS/ ABBREVATIONS

ADB – Africa Development Bank

CP – Community Participation

CSP – Community and Stakeholders Participation

DFID – Department for International Development

ERA – Ethiopia Roads Authority

ESCAP – Economic and Social Commission for Asia and the Pacific

ETB – Ethiopian Birr

GDP – Gross Domestic Product

GNP – Gross National Product

GTP I – Growth and Transformation Plan First

IBRD - International Bank for Reconstruction and Development

ILO – International Labour Organization

MDGs – Millennium Development Goals

NGO - Non-Governmental Organization

ORA – Oromia Roads Authority

RSDP IV - Road Sector Development Program Phase Four

SANRAL – South African National Roads Agency Limited

SDGs – Sustainable Development Goals

UNEP – United Nations Environmental Protection

UNRISD – United Nations Research Institute on Social Development

URRAP – Universal Rural Roads Access Program

USAID – United States Agency for International Development

USD – United States Dollar

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

According to Van Rijn, *et al* (2016), Roads are a major national asset that represents the wealth of all nations. They are central to every country's economic growth, development and poverty reduction initiatives, and can potentially deliver a wide range of economic and social benefits to all sectors of the economy – health, education, tourism, agriculture, rural and urban development, etc. Without sound and well maintained road infrastructure, physical access to resources and markets suffers, growth stagnates and countries can fall into economic decline.

Road construction projects in Ethiopia are means to accessibility of rural areas and for development activities. Development strategies which are fulfilled through successful road projects out end to import accessibility of rural areas, lower costs associated with transport maintenance and open more areas for development activities. Road projects, involving large amount of capital, also contribute to the total economy through employment generation and in a ripple effect to other business activities. (ERA, 2008)

According to Puram (2007), a good road network has an important bearing on the economic growth of the country. Rural connectivity is perceived as one of the major component in increasing the agricultural output and earning capacity of the rural population. There is a marked improvement in quality of life by way of better educational facilities, improved health services, improved attendance by the school teachers as well as students. Accessibility also provides improvement in governance and provision of other facilities like post offices, access to police in case of emergencies and other communication system like telephones.

Currently, road is widely recognized as a primary communication to all sectors of economy and the population. An efficient road infrastructure is also recognized as a big requirement for economic and social development through linking rural roads with major towns and cities. (ERA, 2008).

As described by World Bank (2005), Investment in transport, and particularly road transport, improves the well-being of the poor, especially the rural one. And the provision of all-weather roads has the following benefits to the rural society as described by the World Bank which include:

1. Improves the quality of universal education – it makes it possible to recruit and retain qualified teachers and assistants;
2. Improves access by the poor to human, natural, social and financial resources that they need to raise living standards and welfare;
3. Provides opportunities for the poor to participate more fully in development opportunities
4. Gives access to markets, jobs, schools, social and health facilities;
5. Provides both short (road building) and long-term (road maintenance) employment opportunities; and
6. Reduces the negative impacts of natural disasters and shocks and provides the links needed to manage it.

According to Haule (2005), poor roads and the subsequent inability to transport people and goods, limit the facilitating role of transport in both production and consumption activities. The link and impact lie in the fact that improved transportation leads to improved accessibility to economic and social opportunities by reducing transport costs. It also ensures increased agricultural productivity, opens up room for participation in non-agricultural activities through time saving, improves accessibility to education and health services, and it links rural communities to the rest of the economy. Maintenance works in rural areas have proven to be an important source of income and distribution of wealth. In the case of urban areas, the quality of transportation and other types of infrastructure appear to play a significant role in reducing inflation, because transportation costs have been found to be a significant component in the total cost of foodstuffs, affecting the survival of urban dwellers.

As Robinson (1998) pointed out, timely road maintenance is important because it sustains the quality and safety of the road in a condition close to the original design, and minimizes the road user costs. It is also cheaper to regularly maintain a road in whole life cost terms, than to endure an ongoing cycle of un-managed deterioration and reconstruction. The impacts of inadequate maintenance can be felt immediately on the safety of the road and on vehicle performance. The

World Bank's note on "Why road maintenance is important and how to get it done" gives a helpful overview of the arguments for timely road maintenance and advice on good practice.

As described by ESCAP (2005), experiences from nearly all developing and most developed countries reveal that it is impossible to secure an adequate and stable flow of funds for road maintenance through the general government budgetary allocation procedure, especially if the allocation depends on annual political budget debates.

According to Ahmad (2006), maintenance is always a must for any road and structure in order to maintain its serviceability and to prevent deterioration that may shorten the service life. In reality, maintenance works are not given the attention it should have a budget allocated for maintenance work in which seldom become a prior consideration. However, it is a fact that maintenance is the most important and the activity to be carried out to prolong or at least maintain serviceability of the road and structure until the end of its service life.

As described by ILO (2014), poorly maintained roads constrain mobility, significantly raise vehicle operating costs, increase accident rates and their associated human and property costs, and aggravate isolation, poverty, poor health, and illiteracy in rural communities. Maintenance ensures that the road remains serviceable throughout its design life. Maintenance is important because it:

- reduces the rate of deterioration, thereby safeguarding previous
- investments in construction and rehabilitation,
- lowers the cost of operating vehicles on the road by providing a
- smooth running surface,
- improves safety of road users,
- improves the reliability of the road allowing it to remain open for
- traffic on a continuous basis and thus contributes to more reliable
- transport services, and
- sustains social and economic benefits of improved road access.

Regular maintenance heightens the reliability for road users through the simple fact that damages are dealt with at a stage before they become a hazard. Timely maintenance also includes the up keep of signage and road markings which contribute to road safety.

1.2. Statement of the problem

As described by ESCAP (2005), Road maintenance is less politically attractive than new road construction, road rehabilitation, and social programmes which are more "visible" and therefore carry more political mileage. In addition, the lack of understanding regarding the economic consequences of poor maintenance, even by those administering the road network, further complicates efforts to raise sufficient maintenance funds. Globally very few countries, with Japan and some European countries as notable exceptions, have been able to assign sufficient resources to road maintenance on a sustainable basis.

As major component of the RSDP-IV, URRAP was launched envisaging to connect all kebeles by standard and affordable all-weather roads that provide year round access. Within the program implementation period it was planned to construct 71,523 km of all-weather roads throughout the country at an estimated cost of more than ETB 40 billion. The full-fledged implementation of URRAP will ensure close to 80% of the total rural population year round access to road. (ERA, 2014)

From the country's total URRAP plan, Oromiya Region's was 30,007 kms which constitutes about 42% of the country. According to ORA's report at the end of GTP I, from the planned more than 28,100 km (93.6%) was accomplished by the collaboration of government budget /MDG budget and woredas capital budget/ and CSP (contribution in terms of cash, in kind and free labour form). As a result of this, the region's road asset increased to 47,655 kms of which URRAP accounts for more than 59.14%. The community's contribution constitutes about 25% of the allotted government budget. (ORA, 2015). This huge amount of road asset constructed by the collaboration of the government and community requires special attention for its future service sustainability.

As it is obvious that the Ethiopian Road Fund has the mandate of allocating budget for federal (ERA), regional roads authorities and municipalities for road maintenance on the basis of road segment and work volume that accounts for 70%, 20% and 10%, respectively.

Despite the establishment of Road Funds that have increased funding for road maintenance, financial resources remain insufficient to pay for the ever increasing maintenance as road networks expand. Rural communities are demanding roads that provide year-round unimpeded access and better opportunities for improved mobility. Additionally, the budget which is allocated for ORA from the Road Fund, only for capital projects under maintenance excluding URRAP roads maintenance, was not adequate relative to the number of road segments, conditions of roads and work volume. This presents a major challenge for practitioners in the road sector.

Community participation is one potential source for further development in a country where resources are not in abundance. To mobilize resource, through rural development programs on transport and travel for the needy areas, there seem to be a bright opportunity and potential for future development. This indirectly means that there is an opportunity for further intensification of Road Fund activities on community based support programs, be it by establishing community Road Funds or extending support from existing Road Fund to community initiated work programs. This may extend to bringing public participation on maintenance works and the creation of sense of ownership on low volume access roads. (ERA, 2014)

Therefore, applying the successes of CSP achieved in the construction of URRAP roads in GTP I to the maintenance of these roads is the main focus of this study.

1.3. Research Questions

☞What are the roles of CSP in URRAP roads construction and maintenance projects?

☞How community and stakeholders' participation was managed?

☞What does the work integration and cooperation between ORA and other pertinent offices in community participation looks like?

☞How do the administrative bodies support to community and stakeholders' participation?

1.4. Objectives of the study

1.4.1. General Objective

The general objective of this study is to assess the community and stakeholders' participation on roads maintenance projects.

1.4.2. Specific Objectives

- To analyze the roles of CSP on the construction of URRAP roads projects
- To assess CSP on the maintenance URRAP roads projects
- To describe the management of community and stakeholders' participation
- To identify the work integration and cooperation between ORA and other pertinent organizations in managing CSP
- To identify support given by the administrative bodies in achieving CSP in GTP I

1.5. Significance of the study

This project paper will particularly help ORA by ensuring CSP on roads maintenance projects in which the sustainability of the transport service activities throughout the region ensured and thereby the rural communities can get reliable transport services to fulfill their day to day activities throughout the year.

1.6. Scope of the Study

There are different types of roads maintenance projects undertaken by different organizations. The scope of the study focuses on the maintenance URRAP roads projects of ORA by community and stakeholders' participation. It does not intended to incorporate other maintenance activities such as roads and bridges projects categorized capital projects that are undertaken by ORA at regional level and ERA at federal level.

1.7. Limitation of the study

While conducting this study, the researcher was faced with the following limitations:-

- The researcher faced a challenge of uncooperative and unfriendly respondents. But to this problem was countered by motivating the respondents and by following up on the questionnaires closely to be filled and responded timely.

- Another challenge faced by the researcher during this work was time constraint that the available time for the study was too short. The researcher minimizes this problem by rescheduling the time planned for data collection and to interview the mangers of ORA.

1.8. Definition of Terms

Access - the opportunity to use or the right to or the ability to reach some destiny.

All weather road – A road that is usually passable to motorized traffic in both wet and dry weather.

Asset Management – A systematic process of effectively maintaining, upgrading and operating assets, combining engineering principles with sound business practice and economic rationale, and providing the tools to facilitate a more organized and flexible approach to making decisions necessary to achieve the public's expectations.

Community – A collection of households who live in close geographical proximity such as a ward and commune with one another

Community Participation - the process by which individuals, families, or communities assume responsibility for their own welfare and develop a capacity to contribute to their own and the community's development by being involved in the decision-making processes in determining goals and pursuing issues of importance to them for example, the allocation of funds.

Emergency Maintenance – Maintenance and repairs of an urgent and unforeseen nature often required to re-open or keep open a road.

Kebele - The smallest administrative division in Ethiopia

Length person – An individual given responsibility for the maintenance of a specified section or length of road over an extended period of time (usually at least one year).

Maintenance - Activities required or undertaken to conserve as nearly, and as long, as possible the original condition of an asset or resource while compensating for normal wear and tear.

Participation - the active involvement of a community to take part or share in an activity

Periodic maintenance – Activities on a section of road at regular and relatively long intervals (3-8 years) with the aim of preserving the structural integrity of the road

Road Maintenance - Suitable regular and occasional activities to keep pavement, shoulders slopes, drainage facilities and all other structures and properties margins as near as possible to their as constructed or renewed conditions**.**

Routine Maintenance – comprises a range of small scale and simple activities usually carried out at least once a year but usually widely dispersed.

Woreda - the third level administrative division of Ethiopia, similar to district

1.9. Organization of the Research Report

Chapter one of this study demonstrates the introduction part that include the study backgrounds, statements of the problem, basic research questions, objectives, significance and limitation of the study and the second chapter deals with review of related literature and the third chapter describes research design and methodology of the study used, data analysis and interpretation would be discussed in the fourth chapter, finally the last chapter contains the research conclusions and recommendations.

CHAPTER TWO

RELATED LITERATURE REVIEW

2.1. Theoretical Literature

2.1.1. Maintenance

As described by the World Bank (1988) and cited by Ipingbemi (2008), road maintenance means preserving and keeping road structures as near as possible in its original state. It consists of correcting deficiencies that have developed as a result of age or use, and taking steps to prevent the development of other deficiencies. It comprises of the activities to keep pavement, shoulders, slopes, drainage facilities and all the structure and property within the road margins in good condition. Road maintenance is vital in order to prolong the life span of roads. A well-maintained road reduces cost of operating vehicles by providing good running surface. Proper maintenance keeps the roads open and ensures greater regularity, punctuality and safety of transport services.

Effective road maintenance is the most important prerequisite for safeguarding the investment and ensuring that the road serves its purpose over the anticipated lifetime. It must be noted that a road should not be constructed if maintenance cannot be afforded and managed, especially in developing countries where rural roads require continuous maintenance throughout the year especially during the raining season. (Olusiyi Ipingbemi, 2008)

According to Ashoke (2011), maintenance of roads should be considered a part of the overall road asset management system. Asset Management may be defined as minimizing the life cycle cost of managing deteriorating road facilities, including construction costs, while maintaining the level of service provided to road users with limited financial and human resources, maintaining the existing road assets in good condition, and clearly explaining these activities to the public. The asset management process includes the maintenance, renewal and up-grading of existing assets; the creation of new assets and the disposal of surplus assets.

As Isotalo (1992) pointed out, maintenance of rural roads is a major concern in many countries, which has proved very difficult to resolve through conventional approaches. Experience in Finland shows that rural people can be mobilized to maintain their access roads if some financial incentive and an appropriate legal framework are made available by the government. The implication is that more focus should be shifted from the local government level further down to the actual users and beneficiaries of the roads. This is particularly relevant to current efforts to improve rural road maintenance in Sub-Saharan Africa.

As described by Ramachandran (2008), Africa is poorly serviced with rural roads. The significant difference is partly due to diverse levels of development in general, but it also reflects the basic geographic fact that Africa is a very large continent, often with vast distances between the main population and production centers. The large size of the continent and the wide spread of population only raises the significance of transport in almost all development decisions. This lack of adequate transportation impacts the level of business activity by lowering productivity and limiting the entry of new enterprises. Businesses in Africa either supply to fragmented regional markets, or restrict themselves to market opportunities with profits large enough to cover the high transport costs.

As Wattam (1998) described, road maintenance is of crucial importance in Sub-Saharan Africa because of the inherent characteristics of their road networks. Low levels of development mean that levels of traffic are low, which in turn means that it is difficult to justify expensive paved roads. As a result, many roads are commonly built of earth or gravel, which are cheaper to construct but relatively more expensive to maintain. These higher costs invariably result in inadequate maintenance regimes, which suppress the travel and transport benefits and limit their developmental impact and the possibility of further improvement.

According to Robinson (1998), road maintenance costs can vary significantly depending particularly on:

- the type of road, surface and construction quality;
- how much it is used, particularly by heavy vehicles,
- organizational, logistical arrangements,
- technology choice for each operation,

- type and cost of works equipment and transport used,
- local labour and materials costs, and
- the quality and timeliness of current and previous maintenance.

In an ideal world transport infrastructure would be constructed, regularly maintained and infrequently rehabilitated. However, construction rich and maintenance poor budgets have encouraged a cycle of frequent rehabilitation, as ineffective maintenance regimes have shortened the life of newly constructed roads.

Wattam (1998) had used the following road maintenance typology in discussing the issues related to the road maintenance activities.

Table 2.1: Road Maintenance Typology

Routine Maintenance	Operations such as vegetation control, shoulder rebuilding, pothole repair are required to be carried out one or more times per year on a section of road. These operations are typically simple and on a small scale, but are widely dispersed. As such they usually require unskilled or semi-skilled labour and this can be estimated and planned for on a regular basis.
Periodic Maintenance	Operations such as resurfacing that are required on the road after a number of years. These operations are normally large scale and require specialist equipment and skilled resources to implement, and usually necessitate the temporary deployment of those resources on one road section at a time. These operations are costly and require specific identification and planning for implementation, and may require design.
Emergency Maintenance	Emergency operations needed to repair road sections, culverts and bridges damaged by natural calamities – floods, storms, earthquakes or traffic accidents.
Road Rehabilitation	The restoration of a road after deterioration due to a poor maintenance.

Source, Wattam, (1998)

2.1.2. Why is Maintenance Important?

As described by SANRAL (2004), Roads are among the most important public assets in many countries. Road improvements bring immediate and sometimes dramatic benefits to road users through improved access to hospitals, schools, and markets; improved comfort, speed, and safety; and lower vehicle operating costs. For these benefits to be sustained, road improvements must be followed by a well-planned program of maintenance. Without regular maintenance, roads can rapidly fall into disrepair, preventing realization of the longer term impacts of road improvements on development, such as increased agricultural production and growth in school enrollment.

Postponing road maintenance results in high direct and indirect costs. If road defects are repaired promptly, the cost is usually modest. If defects are neglected, an entire road section may fail completely, requiring full reconstruction at three times or more the cost, on average, of maintenance costs. (SANRAL 2004).

Delayed maintenance has indirect costs as well. Neglected roads steadily become more difficult to use, resulting in increased vehicle operating costs (more frequent repairs, more fuel use) and a reluctance by transport operators to use the roads. This imposes a heavy burden on the economy: as passenger and freight services are curtailed, there is a consequent loss of economic and social development opportunities.

Countries need a core road network that carries about 80 percent of national traffic, including key roads in urban areas and roads providing sufficient access to rural areas. Some part of the overall road budget thus has to be spent on construction and some part on maintaining the core network. But many countries have tended to favor new construction, rehabilitation, or reconstruction of roads over maintenance. This has led to a steady increase in the backlog of road repairs and a loss of development impact. In Sub-Saharan Africa for every kilometer of road rehabilitated, an estimated three kilometers of road fall into disrepair, leading to a net deterioration in the total road network (World Bank 2003). The situation is similar in many other developing country regions. Much of the capital cost of road construction is financed by donor funds, with low perceived cost to the country but high real costs, while maintenance is funded locally, requiring difficult and unpopular tax mobilization.

2.1.3. Classification of Maintenance

Road maintenance activities can be classified based on the nature of each activity and the frequency at which they should be carried out. Decisions will have to be made regarding whether these different types of roads should be put under the same management system. It may be appropriate to consider them separately and to develop separate maintenance management systems for them. Funds may be allocated separately for each one of them depending on length and requirements. (World Bank, 1988).

There are four main types of rural road maintenance:

a. Routine Maintenance
b. Recurrent Maintenance
c. Periodic Maintenance
d. Urgent Maintenance

a. Routine Maintenance

Routine maintenance comprises a range of small scale and simple activities - usually carried out at least once a year - but usually widely dispersed. Typical activities include roadside verge clearing and cutting back encroaching vegetation, cleaning of silted ditches and culverts, patching and pothole repair, and light grading/reshaping of unsealed surfaces. This maintenance may be able to use unskilled/skilled labour, or labour based methods supported by light equipment. Conventional or community contracting may be appropriate. These regular operations are a good opportunity to identify periodic maintenance needs.

b. Recurrent Maintenance

Occasionally urgent, unplanned, maintenance works may also be required - sometimes known as Emergency Maintenance - for example because of particularly severe weather conditions, floods, unexpected deterioration, or damage caused by vehicles.

These activities may be required at intervals throughout the year depending on the damaging effects of traffic, rain etc.

c. Periodic Maintenance

Periodic maintenance occurs less frequently - usually after a number of years. Works can include regravelling, resurfacing, resealing and repairs to structures. It is normally large scale and usually requires standard or specialist equipment and skilled resources. Pavement strengthening overlays or pavement reconstruction are normally not considered to be 'maintenance' and are often funded separately under 'development' or 'capital' budgets.

These are required at periods of several years of frequency depending on the damaging factor as well as the standard of maintenance.

They include:

- Base and surface correction, surface application.
- Grading and levelling of shoulders.

d. Urgent Maintenance

Urgent maintenance covers the items to be carried out without delay to avoid danger to the traffic.

They include:

- Restoration of flood damage slides etc.,
- Road diversions,
- Removal of fallen trees and branches

2.1.4. The Importance of Well-Maintained Road Infrastructure

According to Van Rijn, *et al* (2016), well maintained road infrastructure has the following benefits:

i. Contribution to Development

The predominance of road transport as the principal means of passenger and freight movements – averaging 80 per cent worldwide – underlines the economic importance of roads in any country's development. Such roads are a fundamental facilitator of the success of all other service sectors and their contribution to GDP lies in the range 10 to 20 percent. It stands to reason, therefore, that well maintained road infrastructure is essential to allow road transport to play its catalytic role in

delivering a wide range of economic and social benefits to all sectors of the economy as summarized below:

- By reducing transaction costs and facilitating trade, commerce and mobility for all people in society, road transport contributes to fostering sustainable economic and social development.
- By facilitating integration between and within countries, and linking landlocked countries to regional and international routes, road transport plays a key role in the integration of the African countries into the world economy.
- By enabling greater mobility for the poor and by creating employment opportunities, road transport contributes to poverty reduction.
- By improving environmental conditions which link to improved livelihoods, better health and reduced vulnerability to the poor.

ii. Support to the Millennium Development Goals (MDGs)

Maintenance can influence the attainment of the MDGs in a variety of ways.

Table 2.2: Influence of Maintenance in the attainment of MDGs

Goal	Road maintenance contribution
1. Eradicate poverty	Well-maintained road infrastructure facilitates inter- and intra-regional trade, economic growth and poverty reduction.
2. Achieve universal primary education	Reliable Quality of access on rural roads affects school enrolment and attendance.
3. Gender equality in education	Girls' attendance at schools is increased by well-maintained, safer roads.
4. Reduce child mortality	Adequate access to health services is supported by appropriately maintained roads.
5. Reduce maternal mortality	
6. Combat HIV/AIDS, malaria & other iseases	
7. Ensure environmental sustainability	Timely road maintenance saves longer term costs and reduces materials consumption.
8. Develop a global partnership for development	Sharing best practice in road maintenance technology.

Source: Van Rijn, et al (2016)

iii. Avoiding an 'Infrastructure Gap'

The post-independence era of the late 1950 and 1960s in Africa saw a substantial expansion of national road networks in most countries. By the end of 1980 over 2 million kilometres of roads had been constructed with an asset value of US$150 billion. However, the expansion of these networks was not matched with commensurate funding for maintaining this infrastructure. The result was that by 2000 over 33 percent of the asset value had been lost due to lack of routine and periodic maintenance.

A continued lack of supply of adequate infrastructure compared to demand coupled with failure to properly protect earlier investments in infrastructure, such that the infrastructure has deteriorated faster than planned, is gradually opening up a huge infrastructure gap. Reducing the infrastructure gap will require substantial funding to replace infrastructure that has not been well maintained. Such funding could have been substantially reduced had effective maintenance been carried out in a timely manner.

2.1.5. Key Issues in Road Maintenance

Van Rijn, *et al* (2016) pointed out the following key issues in road maintenance:

i. Justification for Good Maintenance

The justification for investing in road maintenance is a compelling one. Having spent time, effort and money in planning, designing and constructing a road, it is vital to ensure that the asset is preserved by timely and effective maintenance. Well planned maintenance not only optimizes the use of existing road assets but it also protects the huge amount of investments made in providing such infrastructure.

In contrast, poorly maintained roads quickly fall into disrepair leading to increased costs for road users in vehicle operation, time, reliability and safety. Such roads also cost more to rehabilitate which drains financial resources that could be spent on deserving causes, such as schools and hospitals. If deterioration goes too far, users will be reluctant to use the road with attendant losses of the economic and social benefits that it confers. Ultimately, poorly maintained roads not only

impose a major constraint to a country's economic growth and poverty reduction potential but also to impose what, in essence, are a hidden tax on civil society.

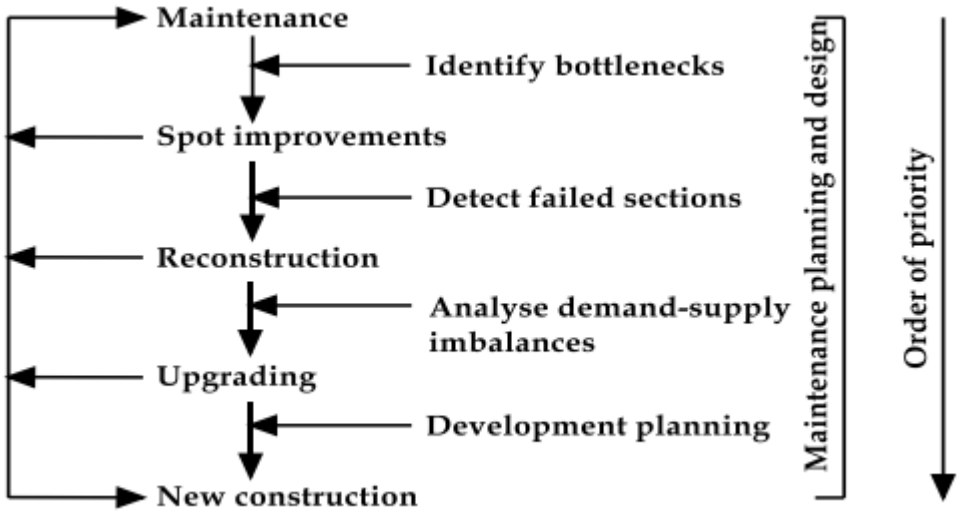
ii. Economic Viability

Effective road maintenance also makes good economic sense. When budgets are constrained, it is far better to invest in maintenance than in new construction or rehabilitation. The profitability of road projects or the economic growth of the invested capital is always in favour of maintenance. This implies that investing on a variety of maintenance projects, instead of an isolated new road construction project, contributes much more to the economic growth of the country than new construction. In other words, investments for road maintenance are best suited for an economy of growth. This suggests a need to rebalance capital and recurrent budgets to give priority to preventative maintenance.

iii. Prioritization of Expenditure

Top priority should be given to maintenance whilst new construction should be given the lowest priority, unless there is overwhelming economic justification for it to pre-empt other activities.

Hierarchy of expenditure options



Source, Van Rijn, et al (2016)

Failure to maintain a road in a timely manner is tantamount to an act of disinvestment, for it implies the sacrifice of past investments in roads.

iv. Timing of Maintenance

The timing of maintenance and rehabilitation actions can greatly influence their effectiveness. They should be carried out at the optimum time. A well-planned maintenance program, in conjunction with an appropriate asset management system, can supplement engineering judgment and help achieve this timing.

Maintenance interventions undertaken before the optimum time are not cost effective. This is because the road agency is spending more than necessary without any benefit to road users. Similarly, maintenance interventions undertaken after the optimum time are also not cost effective.

v. Other Factors

a. Overload Control

Road maintenance requirements are also affected by vehicle overloading which needs to be strictly controlled as, otherwise, the integrity of the road pavement will be undermined and the deterioration of the pavement will be accelerated. Thus, unless serious attention is given to controlling overloading, any efforts aimed at improving road maintenance will be diluted.

b. Dealing with Climate Change

Climate change is expected to lead to increases in frequency and intensity of severe weather events. Vulnerability to climate change arises mostly from poorly maintained assets. Effective maintenance will need to be provided to offer a degree of security against the effects of climate change which will enable countries to obtain optimal service from their existing infrastructure assets. It is therefore crucial that politicians recognize the need for well-developed maintenance resilience policies.

2.1.6. Transport infrastructure

There are a number of definitions of transport infrastructure that differ between countries within the East Africa Region and sometimes within the countries themselves! The type of infrastructure can range from waterways to roads. The following broad classification will be used to distinguish between roads.

Table 2.3: Classifications of road

Classification	Linking	Vehicle per day	Primary Transport Modes	Usual Surface	Ownership
Community roads, tracks and paths	Villager to service	<5	Foot Bicycle	Earth	Village Administration
Feeder roads	Village to larger road or village	<5	Foot Bicycle	Earth	Local central administration
Local Administration Roads	Local urban centre to local urban centre	5-50	Bicycle Motorized	Earth/Gravel	Local central administration
Central Government Roads	Large urban centre to local urban centre or other large urban centre	100^{+}	Motorized	Gravel/Tarmac	Central Government

Source: DFID (2003)

Given these definitions, the context in which they are used is one of diminishing government resources and donor fatigue in supporting the build and rehabilitate cycle of infrastructure maintenance. It is argued that if communities participate in the maintenance of transport infrastructure, not only would this be more cost effective but it would also have important developmental spin-offs. These would include improved cash income opportunities, skill development and a greater sense of ownership. For central government and important local roads, the benefits of community participation particularly apply to routine maintenance, which suits the

skill profile of farming communities and can be adapted to fit in with the agricultural calendar. (IT Transport, 2003)

However, the lack of local government funds means that community participation is increasingly applied to the periodic and emergency maintenance of community and feeder roads. In this situation, the lack of road construction skills and materials can limit the effectiveness of unskilled community labour. It is in this context of the widening popularity and use of community participation.

2.1.7. Community Participation

2.1.7.1. Community

From its dictionary form the term 'community' refers to a group of people living together in one place, especially one practicing common ownership. Even a briefest of literature searches suggests that the concept of a community varies between projects, sectors, regions and countries. In general three different types of community can be identified in terms of their legal/administrative, social and resource characteristics. (Wattam, 1998)

i. Legal/administrative communities

These are usually defined by a countries local government legislation, which recognizes a hierarchy of communities and codifies their administration in terms of traditional or political structures. It may also be the case that both traditional and elected structures exist side by side and these provide alternative channels of communication and potential confusion or conflict for outsiders trying to identify and work with the local 'community'.

ii. Social communities

These are defined by the members themselves and reflect the differentiation of the rural population by prevailing social, economic and cultural norms, which may be reinforced by residential segregation. In this perspective, the community can be seen as having a common characteristic or

bound by its common interests. Examples of these may be traders, farmers, and local administrators.

iii. Geographical communities

These might be defined in geographic or planning terms and for example natural features or levels of demand/supply might be used to identify communal interests or catchment areas.

The implication of these different concepts is that communities will be defined differently according to the project's demands. Road projects and their maintenance are no different in this respect and it is possible to identify all three types of communities in the context of transport planning.

2.1.7.2. Participation

Participation can be defined differently by different scholars and/or organizations for different purposes even though the meaning of the definition broadly remains the same. In simple terms a dictionary suggests that participation is the active involvement of a community to take part or share in an activity.

Indeed, it might be argued that all projects are participatory since they invariably involve a degree of passive and commonly material incentive participation.

According to IBRD (1996:32) participation in infrastructure service management is defined as "a process whereby people-as consumers and producers of infrastructure services and as citizens-influence the flow and quality of infrastructure services available to them. Participation is based on voluntary relationships between various actors, which may include government institutions, individual infrastructure users, community-based organizations, user groups, private enterprises, and non-governmental organizations."

One of the key objectives of participation is to incorporate local knowledge and preferences into the decision-making processes of governments, private providers, and donor agencies. When potential beneficiaries are able to make key decisions, participation becomes self-initiated action—what is known as the "exercise of voice and choice" or "empowerment." Participation is

expected to lead to better-designed development projects, more effective service delivery, and improvements in the targeting of benefits (IBRD, 2013:15).

Brager *et al,* (1987) defined participation as a means to educate citizens and to increase their competence. It is a vehicle for influencing decisions that affect the lives of citizens and an avenue for transferring political power. However, it can also be a method to co-opt dissent, a mechanism for ensuring the receptivity, sensitivity, and even accountability of social services to the consumers. Armitage (1988) defined citizen participation as a process by which citizens act in response to public concerns, voice their opinions about decisions that affect them, and take responsibility for changes to their community.

Westergaard (1986) defined participation as "collective efforts to increase and exercise control over resources and institutions on the part of groups and movements of those hitherto excluded from control" (p.14). This definition points toward a mechanism for ensuring community participation. The World Bank's Learning Group on Participatory Development (1995) defines participation as "a process through which stakeholders influence and share control over development initiatives, and the decisions and resources which affect them" (p.3).

A descriptive definition of participation programs would imply the involvement of a significant number of persons in situations or actions that enhance their well-being, for example, their income, security, or self-esteem (Chowdhury, 1996). Chowdhury states that the ideal conditions contributing towards meaningful participation can be discussed from three aspects:

1. What kind of participation is under consideration?
2. Who participates in it?
3. How does participation occur?

Evens (1974) also points out the importance of the following issues in order to assess the extent of community participation:

1. Who participates?
2. What do people participate in?
3. Why do people participate? There are:
    a) Cultural explanations (values, norms, and roles, etc.)

b) Cognitive explanations (verbal skills and knowledge about the organizations)

c) Structural explanations (alternatives, resources available, and the nature of benefit sought)

4. Implications (how the benefit contributes to the ends or principles they value).

Table 2.4: Types of Participation

Participation Type	Characteristic
Passive participation	People participate by living in the area of the project. They may be told what is going to happen or has already happened but will have no other input
Participation for material incentive	People participate by being paid for labour in food or cash, for a pre-determined project. This may be as a 'community' or as groups
Participation by resource contribution	People participate by contributing a resource such as labour or money, to a pre-determined project
Participation by consultation	People participate by being consulted (perhaps with options) on projects where the majority of the decisions have been made. Their view may or may not be considered
Interactive participation	People participate by joining with external professionals in analysis of their situation, developing action plans and determining common projects
Spontaneous mobilization	People participate by taking their own initiative independent of external professionals to change their situation. This may lead to self-help projects or requests to other institutions for assistance

Source: Wattam, 1998

2.1.7.3. Community Participation

Oakley and Marsden (1987) defined community participation as the process by which individuals, families, or communities assume responsibility for their own welfare and develop a capacity to contribute to their own and the community's development. In the context of development, community participation refers to an active process whereby beneficiaries influence the direction and execution of development projects rather than merely receive a share of project benefits (Paul,

in Bamberger, 1986). Paul's five objectives to which community participation might contribute are:

1. **Sharing project costs**: participants are asked to contribute money or labor (and occasionally goods) during the project's implementation or operational stages.
2. **Increasing project efficiency:** beneficiary consultation during project planning or beneficiary involvement in the management of project implementation or operation.
3. **Increasing project effectiveness**: greater beneficiary involvement to help ensure that the project achieves its objectives and that benefits go to the intended groups.
4. **Building beneficiary capacity:** either through ensuring that participants are actively involved in project planning and implementation or through formal or informal training and consciousness- raising activities.
5. **Increasing empowerment:** defined as seeking to increase the control of the under privileged sectors of society over the resources and decisions affecting their lives and their participation in the benefits produced by the society in which they live. (p. 4–5)

Bamberger (1986) says the objectives and organization of project- level activities are different from those of programs at the national or regional levels. The level or scope of the activity must be taken into consideration when defining objectives. According to Bamberger, three distinct kinds of local participation included the following:

1. Beneficiary involvement in the planning and implementation of externally initiated projects or community participation.
2. External help to strengthen or create local organizations, but without reference to a particular project, or local organizational development.
3. Spontaneous activities of local organizations that have not resulted from outside assistance or indigenous local participation.

The first two are externally promoted participatory approaches used by governments, donors, or NGOs, while the third is the kind of social organization that has evolved independently of (or despite) outside interventions (Bamberger, 1986). At a community level, there is a separation of community participation into two distinct approaches:

1. The community development movement and

2. Community involvement through conscientization (Freire, 1985). The basis of conscientization, according to De Kadt, started from "the existence of socioeconomic inequalities, the generation of these by the economic system, and their underpinning by the state" (De Kadt, in Abbott, 1995).

Community participation 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 and Nampila, 2005). Communities will be able to assess their own situation, organize themselves as a powerful group and work creatively towards changing society and building up a new world. These increased capacities of individuals allow communities to mobilize and help themselves to minimize dependence on the state and leads to a bottom-up approach (Nampila, 2005).

Participation of the community in development projects leads to capacity building which enables the community to be more effective and efficient in the process of identifying, implementing, monitoring and evaluating of developmental projects (Davids *et al*., 2009). According to De Beer (1998), by continuously fulfilling their needs, people learn to realize their objectives more easily. It is a mechanism that enables local people to determine their own values and priorities and act on their own decisions. Full potential of individuals is realized after they have been made aware; then, depending on their capabilities, they act in order to achieve their goals and objectives (Freire, 1993).

People-centred development shifts the emphasis in development action to people, rather than to objects and production, and to the enhancement of their capacity to participate in the development process. Heavily relying on outside resources, such as funding, has resulted in most interventions being unsustainable. A people centred approach enhances self-reliance in communities (Kotze, 1997).

As Bens (1994) pointed out, resources for social welfare services are dwindling internationally. Population pressures, changing priorities, economic competition, and demands for greater effectiveness are all affecting the course of social welfare. The utilization of nonprofessionals

through citizen involvement mechanisms to address social problems has become more common place (Kaufman and Poulin, 1996).

Korten (1990) says that authentic community participation enhances the sustainability of the community development projects and this can only be achieved through a people centered development. Effective community participation may lead to social and personal empowerment, economic development, and socio-political transformation (Kaufman and Alfonso, 1997).

Community participation brings forth several advantages to communities in terms of empowerment, capacity building, improving project effectiveness and efficiency; project cost sharing and enhancing ownership (Thwala, 2010). The extent of participation varies from information sharing, consultation, decision-making and initiation of action. The concept is successful in situations where community members and community-based organizations take up active roles and responsibilities than where development actors merely target them by baseline surveys or consensus-building meetings (Thwala, 2001; 2010). Community-based organizations serve as channels for information flow to communities to enable them make informed decisions and choices (Thwala, 2009).

The World Bank (2004) also points out that the success of community participation depends on the extent to which community members are involved to support various phases of project life, including design, implementation, supervision and evaluation. Furthermore, community participation improves through local committees and governance structures for better mobilization, participation and serve as interface between project management and community members (Adams, 1999). However, this model of community has elicited criticisms for being too project-based, implying that it does not include full spectrum of community participation approaches. As such, the framework adopts a means-oriented approach; through which community participation is emerge as a means towards the realization of project goals (Thwala, 2010).

The alternative approach, which is ends-oriented, perceives community participation as processes through which communities are empowered to play a more active role in mobilization, planning, setting objectives, goals and targets; management, implementation as well as monitoring and evaluation by participating in the appraisal of road works, as well as recognition of achievements,

and redefinition of community needs. In the process of participation, community members may be capacitated through training in basics of accounting and communication skills to enable them understand and correctly interpret financial disclosures by road agencies (Thwala, 2010). In the same vein, Adams (1999) points out that community participation does not simply mean being involved in through casual labour; rather, it means contributing ideas, making decisions and taking responsibility.

Arrossi (1994) also maintains that the term participation can apply in different ways, such as a means to reduce project costs, provision of cheap labour and a means for support mobilization. However, a very different understanding of participation is the one that encourages the community to become involved in the project's decision-making process, influence resource use and activity choices. Similarly, the Asian Development Bank, contend that community participation is far more than mere contribution through labour or supplies, it involves taking greater responsibility in decision-making processes, as well as feedback to project implementers.

Despite an important role played by community participation, it associates with some problems. In this regard, Connor (1997) found that one of the problems relates to coordination and integration of diverse interests into the project plan and implementation. When community participation involves many diverse groups, bringing together their different needs in the design and implementation of the project can prove to be very challenging. Moreover, diverse interests may give rise to collective action problems as well as conflict among participants. In this regard, some participants may perceive inadequate integration when the outcomes seem to be significantly different from what they perceived in the outset of planning process (Nelson & Wrights, 1995).

2.1.8. Benefits of Community Participation

According to Tubey, *et al* (2013), Participation in projects by members of the community has major advantages. It allows people to build their capacities and identify and own the project. This leads to efficiency and sustainability. Kumar (2002, p.27-28) has identified a number of factors which he considers as benefits that come with participation of people in a programme.

First, he states that participation ensures efficient utilization of resources. People work together towards achieving their objectives. If the objective is to construct a bridge of a health centre then they are likely to move together towards that direction.

Second, people's participation increases effectiveness; projects can be finalized within the time schedule; they can also carry out monitoring and evaluation and draw a progress report. Participation also increases effectiveness by granting them a say in deciding the objectives and strategies in the project.

Third, it reduces dependency and increases self-reliance. People would not always look at the government to solve all their problems. With active involvement and participation in the process of development, it is possible to break the mentality of dependency and utilize their own resources-both human and material on the basis of the decision taken by the people themselves and from the realization that they have the solutions to their local problems.

Fourth, peoples' participation can be a potent way of ensuring the flow of the benefits to the beneficiaries.

Furthermore, the cost-effective operations can ensure that resources are available for wider coverage of weaker sections of society. Generally, development interventions are funded either by the government or by external donor agencies. Experience has shown that development interventions from externally assisted projects fail to sustain the required level of development activity once funding has been withdrawn (Kumar, 2002, p.28). The involvement of the people and the utilization of local resources generates a sense of ownership over the development interventions by the local people (Ibid: 28).

2.1.9. Community Participation Approaches

Although there is no consensus, some of the most important approaches to participation are presented below.

i. United Nations Research Institute on Social Development (UNRISD) Approach

The most important and original aspect of UNRISD is the focus on people power and organization of disadvantaged groups, previously bypassed in development. The significant factor in this approach was not that it concentrated on the poorest of the poor but that it emphasized questions of power and organization and also viewed the allies and adversaries of the previously excluded as included in the scope of investigation (Chowdhury, 1996, p.10).

ii. Norman Uphoff's Team: Framework on Participation

In 1976, USAID asked the interdisciplinary Rural Development Committee at Cornell University to come up with some practical concepts and measures of community participation in development (Uphoff, 1997). The committee focused on participation and its framework. In fact, they gave a new thrust to old Community Development (CD) approaches (Chowdhury, 1996). The four kinds of participation they identified are: decision- making, implementation, benefits, and evaluation. Even if these kinds of participation are distinguishable, there are usually connections and feedback among them; for example, participation in decision making is likely to contribute to participation in benefits. The more there is of any one kind, the more participation there is in total (Uphoff, 1997).

Uphoff also emphasized that who participates (and how they participate) is as important to consider as to whether there is participation, and of what kind. Just saying, "there was participation" does not tell us very much. We want to know who participated, why they participated, and how they participated. (Uphoff, 1997).

iii. Self-reliance and Self- Help Approach

During the development decade of the 1960s, self- reliance and self- help projects became the order of the day (Chowdhury, 1996). Chowdhury (1996) also notes that this trend is further developed by the social worker S. Tilakratna of Sri Lanka in his participatory rural development strategy, which aims to combine the best of community development and UNRISD ideas. According to Tilakratna, the idea of people's participation in development means improving the potential of the previously neglected rural poor, enabling them to make decisions for their own welfare.

Chowdhury (1996) also notes that, essentially, the main components of this developmental process are participation in taking initiatives to identify unmet needs, and self- reliance—breaking away from dependencies that suppress the creativity of the poor. This approach is nearest to the type of people's participation practice in Bangladesh. It is more a psychological than an economic or physical process. (p.13)

a. Identification of Appropriate Stakeholders

The public involvement of stakeholders in development projects is widely recognized as a fundamental element of the process. Timely, well- planned, and well implemented public involvement programs have contributed to the successful design, implementation, operation, and management of proposals (UNEP, 1996). For instance, the range of stakeholders involved in an Environmental Impact Assessment (EIA) project typically includes:

1. The people, individuals, or groups in the local community
2. The proponent and other project beneficiaries
3. Government agencies
4. Nongovernmental Organizations (NGOs)
5. Others, such as donors, the private sectors, academics, and so forth

b. Needs Identification and Goal Determination

Participation of the masses in development activities implies enhanced capacity to perceive their own needs. Through participation, local people identify their needs as well as the relevant goals of a program. By participating in decision making and implementation activities, local people help project officials identify (1) needs, (2) strategies to meet those needs, and (3) the necessary resources required to implement the various strategies (Yadama, 1995). For example, community participation will be discouraged if environmental issues are given priority in agendas without addressing issues such as poverty, homelessness, health, and other basic necessities perceived to be more important by the coastal communities.

c. Information Dissemination

This is a one- way flow of information from the proponent of the development project to the public. The proponent should provide sufficient relevant information about the project such as the benefits of the project to the beneficiaries, the costs of implementation, the potential for financing and implementation, and possible risk factors. The proponent must allow sufficient time for individuals to read and discuss the information provided, and listen to the views held by individuals as well as to issues and problems. Lack of transparency often fosters mistrust and misunderstanding between project authorities and local communities (UNEP, 1996).

d. Consultation

Consultation involves inviting people's views on the proposed actions and engaging them in a dialogue. It is a two- way flow of information between the proponent and the public. Consultation provides opportunities for the public to express their views on the project proposal initiated by the project proponent. Rigorous planning and implementation of projects should be undertaken only after considerable discussion and consultation. Consultation includes education, information sharing, and negotiation, with the goal being a better decision making process through organizations consulting the general public (Becker, 1997, p. 155). This process allows neglected people to hear and have a voice in future undertakings. Depending on the project, various methods are used during consultation such as public hearings, public meetings, general public information meetings, informal small group meetings, public displays, field trips, site visits, letter requests for comments, material for mass media, and response to public inquiries. The knowledge of local people should be recognized and they should be enrolled as experts in designing development projects. Participants should be encouraged to articulate their ideas and the design of the project should be based on such ideas.

e. Genuine Interests

Participation depends on people's legitimate interests in the project or development activities. Therefore, participation needs to be considered as an active process, meaning that the person or group in question takes initiatives and asserts an independent role (Chowdhury, 1996).

f. Public Involvement in Decision Making

The project should encourage a maximum number of people in the participation of development projects. Such involvement should give the participants full inclusion in designing, organizing, and implementing activities and workshops in order to create consensus, ownership, and action in support of environmental change in specific areas. It should include people and groups rather than exclude any individuals. Public involvement is a process for involving the public in the decision making of an organization (Becker, 1997, p.155). Participation actually brings the public into the decision-making process.

White (1989) stressed community involvement in management of marine protected areas. According to the author, public involvement can take place at several stages in the establishment and management of marine protected areas. These stages are:

(1) The recognition of a need;

(2) Discussions with interested parties and integration with the community;

(3) Baseline studies and monitoring;

(4) Education;

(5) Core group building and formalization of reserves; and

(6) Enforcement.

g. Accountability

The requirement of accountability applies to all parties involved in the project, such as project management, external organizers, and traditional leaders, as well as any emergent leadership from the ranks of the poor and the disadvantaged (Adnan, *et al.*, 1992, p. 32). The authors also note that the agencies involved in project management and implementation are procedurally and periodically answerable to the people in the project area, as well as the citizens of the country in general. All people should be aware of their roles in the project and the planning of activities of the project. Accountability of concerned community members must be ensured, particularly after the decision is taken.

h. Repeated Interaction

Often there is interaction at the beginning of the project but no dialogue or any other form of interaction occurs during the project. This ultimately creates a big gap between the proponents of the development projects and the communities. Consequently, the local people abandon a project based on such an idea. Therefore, it is suggested that there should be ongoing communication throughout the project period.

i. Ownership and Control

Participation plays a major role in people's management of their own affairs. Ownership and control of resources have a profound impact on participation in development projects (Mathbor,

1990b). Ferrer (1988) emphasized four areas to be worked toward in a participatory coastal resource management program: greater economic and social equality, better access to services for all, greater participation in decision making, and deeper involvement in the organizing process resulting from the empowerment of people.

j. Sharing Benefits

It is evident that without sharing the benefits of the project, participation is a frustrating process for the poorer people. Zachariah and Sooryamoorthy (1994) note that there should be a fair and equitable distribution of benefits, as well as redistribution of goods and services, to enable poorer people to get a fairer share of society's wealth and to participate fully in the development process.

The Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP, 1984), a regional rural development organization in South Asia, mentions that participation entails three distinct processes:

- first, the involvement of the people in decision making;
- second, eliciting of their contribution to development programs; and
- third, their participation in sharing the benefits from the development process.

k. Partnerships

Partnership in development processes allows stakeholders to work, talk, and solve problems with individuals who are often perceived as the masters. Instead of demonstrating the relationship as a worker- client tie, the parties involved should agree on working in partnerships. An expression used by the Latin American activists to describe their relationship with the people (communities, groups) with whom they are working is accompanamiento, or "accompanying the process" (Wilson and Whitmore, 1997). Wilson and Whitmore identified a set of principles for collaboration in a variety of settings and situations. These include nonintrusive collaboration, mutual trust and respect, a common analysis of what the problem is, a commitment to solidarity, equality in the relationship, an explicit focus on process, and the importance of language.

l. Environmental Legislation

The environment is considered as an integral part of development, since any impacts on an individual's environment also impacts on well- being or welfare. It has been shown that the lack of environmental legislation in developing countries limits environmental protection (Kakonge, 1996). This ultimately creates considerable environmental problems in the name of development in third world countries. Therefore, lack of legislation to protect human rights as well as the environment may impede public participation in development projects.

2.1.10. The Forms of Community Participation

As described by Sunday Oni (2015), community participation has the following forms which include:

i. Consultation

This is the basic means of giving the community some voice by involving it in decision making. The main rationale here is to ensure that the project or programme introduced by the outside agency is adapted to meet the needs of community members and to avoid difficulties. This may involve consultation with community representatives or leaders only on one hand and consultation with all sections of the community on the other.

ii. Financial Contribution by the Community

Cash collection made by and within the community generally prior to or at the time of implementation of a project, usually as a contribution to capital construction. Excluded as not really constituting community participation are cases which amount to a payment by individual families for service even when it is an advance payment.

iii. Self-Help Projects by Groups of Beneficiaries

In these projects, a specific grow of local inhabitants contributes their labour (and perhaps other inputs) to its implementation while there is also the assistance of an external agency. Those who contribute will recompense by reduced fees for the services they receive, while non-members pay more.

iv. Self-Help Projects involving the whole Community

Projects in which every family in the community is expected to make a contribution (usually in labour), while there is also an input from an external agency. Food-for work projects may perhaps be included here, though the element of community participation may be considered slightly if it consists only of labour which is paid in cash or kind.

v. Community Specialized Workers

The training and appointment of one or a few community members to perform specialized tasks (e.g. as community health worker, or operation of a community water supply system). The training and technical supervision are carried out by an external agency, but some form of community authority is usually also exercised over the specialized workers.

vi. Mass Action

Collective work in the absence of a major input from an external agency. Often such actions as stated by White (1981) are directed at environmental improvements (e.g. to drain waste water or clear rubbish during monthly sanitation exercises).

vii. Collective Commitment of Behaviour Change

Cases where a community makes a collective decision to change customs or personal habits, and collective social pressure is exercised for the realization of such changes. Examples range from penning of domestic animals to construction and use of latrines or to the reduction of excessive expenditure in connection with weddings, funerals, etc. While changes of behaviour may of course occur in other ways, community participation is involved when explicit decision is collectively taken.

viii. Endogenous Development

Cases in which there is no autonomous generation within the community of ideas and movements for the improvements of living conditions - as opposed to stimulation by outside agents. The community may, however have recourse to external agencies to help with implementation or indeed press for such help. On the other hand, where this is simply pressure for services to be

provided, it hardly qualifies for the term community participation: though in a wider sense this is an example of political participation.

ix. Autonomous Community Projects

The ambiguous "self-reliance" is often understood in this sense projects where any external resources are paid for by the community with funds raised internally including the hiring of any outside expertise or professional staff. Such projects are therefore under community control.

2.1.11. Factors affecting community participation

As DFID (2003) describes, the following factors affect community participation which include:

i. Group homogeneity

Within a community there are numbers of different social and economic groupings. These groups are not mutually exclusive and are often inter-linked; for example, a beekeeper might be a woman managing her husband's coffee farm and a member of the Kebele council. Research has proven that for community participation to be successful and sustained, there needs to be large homogeneous group within the community that accrue a benefit from having good roads.

ii. Importance and type of access

The community maintains the road to match its need for a particular level of access - dry season access for motorized transport. If sufficient people do not feel such a need for example if the majority of the people walk or head load crops to a nearby market, it is likely that the community will be reluctant to participate in other than footpath and footbridge maintenance.

iii. Administrative strength

In most parts of Ethiopia, there are practices that abide rural households to carry out a certain number of labor days for the benefit of the community. This is particularly practical when the communities are mobilized for the maintenance almost every year when fertilizer is brought to a Woreda connected by a trail. The ability of the community to organize these works shows the strength of the administration. This had even led to a change in the labor levy system and some

wealthier households were regularly paying a 'fine' and this was being used to pay someone else to do the work – a kind of local taxation.

iv. Infrastructure history

Previous work carried out on the communities' transport infrastructure has a profound impact on its willingness to participate. If work has been done on the road and there has been little or no consultation with the villagers, they feel that the responsibility for the road maintenance has passed over to the organization conducting the works. Therefore the willingness of communities to participate further could be reduced.

v. Capacity to conduct maintenance

The construction method used can greatly affect the willingness of communities to participate in road maintenance. If a road had been worked on using large plant machinery with a number of experts and imported labor, it dis-empowers the community and undermines its ability to conduct further works. In contrast, the use of labor-based techniques and manual tools like the hoe and slasher reduces the organization and time scale of road construction at the community level and they could identify with and apply these techniques to their own activities.

2.1.12. Community Maintenance

According to (Robinson, 2008), Road maintenance is a critical issue that requires not only consideration of the technical aspects of maintenance, but also the 'softer' institutional, financial and managerial issues. Inadequate maintenance is often blamed on budget constraints. However, in many cases, the problems of rural road maintenance are not simply a matter of inadequate finance, but also relate to poor planning, inadequate information relating to the state of the network and institutional factors such as unclear responsibilities for planning, budgeting and implementation at the various decentralized levels. This means that issues such as the identification of the work to be done, the definition of who is responsible for the works, the specification of the budgets required and identification of the sources of funding is neglected.

In some contexts, one solution to the maintenance problem has been to pass over a certain amount of responsibility to the local community. This has been seen as a means of saving on maintenance costs in budget constrained environments and also building a sense of ownership and responsibility among those who have most to gain from improved access i.e. road adjacent communities. This is particularly the case for the lower order rural and community access roads. For the higher order road network, community participation is less likely to work without financial incentive. (Robinson, 2008)

Many of the initiatives to involve the community in road improvement and maintenance have been on a project (generally donor-funded) basis with considerable support in the form of community mobilisers and technical support. Many of these initiatives have raised a number of important issues, including: the level to which communities can and should participate; what communities are technically and financially capable of taking responsibility for; what incentives should be provided to encourage community participation; what are the appropriate institutional arrangements to support community participation; and, what is the legal status of the community over the public road network, amongst others. (Robinson, 2008)

One key issue relates to the level to which communities participate in or contribute to the process. In simple terms, participation requires the active involvement of a community in a particular process. There are various levels to which communities can participate. At the lowest level is participation by virtue of living in the area of the maintenance initiative. This is passive participation wherein community members may contribute labour or other resources but are not generally consulted during the planning or implementation process for construction or maintenance of the road. A more ideal level of participation is where the community have demanded the intervention and play a full and active role in the planning and implementation process. Where there has been limited experience of involving communities in infrastructure construction and maintenance and where communities have not been consulted or involved in any meaningful way, it is often difficult to change the perception of the community that it is the government's responsibility to provide and maintain infrastructure. In any case, it is necessary to be sensitive to the cultural and socio-economic context since community responsibility for maintenance may not be the most appropriate or attainable solution in all cases. (Robinson, 2008)

Community participation in the maintenance of transport infrastructure is characterized by:

- more cost effective
- improved cash income opportunities
- skill development
- greater sense of ownership
- routine maintenance suits the skill profile of farming communities can be adapted to fit in with the agricultural calendar

2.2. Empirical Literature

2.2.1. Roads Funds: Sustainable Financing and Management of Latin America's Roads

According to Zietlow (2005), the extensive road networks of Latin America and the Caribbean, valued at over US$ 350 billion, show alarming signs of neglect and decay. It is estimated that more than US$ 30 billion are wasted annually in the absence of adequate road maintenance. Individual countries in the region are losing 1 to 3 per cent of their annual GNP from increase in vehicle operating costs and loss of road asset values alone. Consequently, several countries in the region have started to place road maintenance on a fee-for-service basis and are transferring road maintenance management from a government environment to a company environment. A new generation of road maintenance funds has been created in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and in the four Brazilian states of Mato Grosso, Mato Grosso do Sul, Paraná, and Goiás.

For the last 50 years, roads have been the backbone of Latin America's freight and passenger transport system with road networks continuing to grow rapidly throughout most of this period. However, in recent years the rate of expansion has slowed and ageing of road networks has proceeded rapidly. Scarcity of resources, especially in the 1980s, has contributed to an ever-decreasing amount of money allocated to road maintenance. Towards the end of the decade many countries in the region spent less than 20 per cent of the amount necessary to maintain their road networks in serviceable condition. In the early 1990s, funding levels for the road sector improved slightly. However, the available funds were mostly being used for road rehabilitation.

Only a small portion was being spent on the more cost-effective routine and periodic maintenance activities. This situation remains unchanged in most of the countries of the region.

As Zietlow (2005) described, some countries in Latin America used to finance road construction, rehabilitation and maintenance through earmarked taxes, especially on fuels used by motor vehicles. However, none of these funds could be sustained in the long run. The main problem was that governments began utilizing these funds for other purposes. This was especially true in times of crisis. As many of these crises were never resolved, dedicated road maintenance funds have effectively been permanently reallocated.

In the region, government departments carry out the management of road infrastructure. While most of the construction, rehabilitation and some maintenance projects are contracted out, the government departments are responsible for planning, contracting, and supervising these projects in addition to performing most of the road maintenance works. Overstaffing, lack of discipline and control, lack of incentives and corruption are common problems in many of these departments. Internal inefficiencies of government departments also act as a major hindrance to sustainable road maintenance at a reasonable cost.

2.2.2. Experience in reforms of road maintenance financing and management in sub-Saharan Africa

As Brushett (1998) pointed out, the public road network has been identified as the largest public infrastructure asset. Estimation of road asset values, and costing out the implications of deferred maintenance to the economy and the road user, have given a strong impetus to asset preservation policies and maintenance prioritization. For sub-Saharan African countries this is a particularly important consideration as they generally carry higher road asset values per GDP than average. Thus, the costs to economies of degraded networks are very high and constrain national economic development potential.

Brushett (1998) stated that, the predominance of road transport as the principal means of passenger and freight movements – averaging 80 per cent worldwide and generally higher than 60 per cent in sub-Saharan Africa – underlines the economic importance of roads. Growth rates of road

networks have accelerated, particularly in transition and developing countries, which have sought to respond to increasing demand. Expansion has been particularly fast in Asia and Latin America, but somewhat lagging in sub-Saharan Africa. The investment implications are significant. Fay and Yepes (2003) estimate that needed yearly infrastructure expenditure in developing countries is around US$ 233 billion with a similar amount required for maintenance, approximating about 5.5 per cent of GDP in total. On average, roads are projected to require about 19 per cent of all infrastructure investment needs, or up to 1 per cent of GDP, to which allowance for current maintenance has to be added. For sub-Saharan Africa the numbers will be generally higher in view of past underinvestment and the accumulation of arrears on maintenance. For example, recent World Bank reports cite annual road sector expenditure as a percentage of GDP amounting to 2.2 to 2.5 per cent in Malawi (World Bank, 2001) and 1.9 per cent in Zambia (World Bank, 1997) in neither case was this regarded as sufficient to meet all needs.

According to Brushett (1998), road deterioration, and the subsequent loss of road assets, started to receive serious attention in the 1980s. As stated by Harral and Faiz (1988) and cited by Brushett (1998) "failure to maintain roads is tantamount to an act of disinvestment, for it implies the sacrifice of past investments in roads." Their study identified that the loss of approximately US$ 45 billion in road infrastructure in the 1970s and 1980s could have been averted by spending just US$ 12 billion on preventive maintenance. Crucially, they also drew attention to the inadequacies of traditional road management structures and functions in coping with the scale of the maintenance problem. They also made important contributions in focusing external support, including World Bank lending, on road maintenance and on setting up appropriate and adequately funded road maintenance organizations.

At this time it could fairly be stated that road maintenance in sub-Saharan Africa was as problematic as in any region. Heggie (2003) estimated that less than half of the required expenditure to prevent further deterioration was being met and that the required increases were on average 0.85 per cent of GDP. On average the quality of main road networks was extremely low, with not less than 25 per cent of paved and 33 per cent of unpaved roads in poor condition. These road conditions led to higher vehicle operating costs and lengthier travel times. The situation was even worse for feeder road networks, with about 90 per cent of roads in poor condition, heavily penalizing agricultural production and the rural poor. Despite the allocation of a significant

proportion of public resources, 5 to 10 per cent of recurrent budgets and 10 to 20 per cent of development budgets, the capacity to absorb and efficiently utilize these funds was very low. The combination of these factors was contributing to a substantial degree of frustration on the part of road users and other beneficiaries, as well as disenchantment among financiers.

2.2.3. Sustainable road maintenance in India

According to Gupta (2005), roads in India have come to occupy a dominant position in country's transport system. They are considered critical to economic growth and social development. At 3.2 million km (excluding urban/municipal roads), India's road network is one of the largest in the world. When viewed as assets, roads have enormous value. The current replacement value of the existing network has been estimated at Rupees 5,000 billion (equivalent to US$ 115 billion). Assets deteriorate as a result of normal wear and tear and owing to the ravages of weather and time. The life of a road is subject to an inexorable cycle of construction, inadequate (or non-existent) maintenance, deterioration, collapse and reconstruction. The loss in asset value resulting from the deterioration of existing road networks is high. Regarding as precious infrastructure road assets must therefore be maintained like any other asset.

As Gupta (2005) pointed out, road maintenance in India has suffered in the past due to shortages of resources. In addition, road maintenance has been considered a low priority compared with capacity augmentation of main roads and construction of all-weather roads to provide connectivity to villages. Maintenance is considered a non-plan activity. Budget allocations are often cut at short notice in response to difficult fiscal conditions. In such situations, it is usually the non-plan activities which receive the axe. As a result, maintenance becomes the common casualty.

As Gupta (2005) noted, maintenance is postponed in the hope that fiscal conditions will improve. But this seldom happens and road maintenance continues to be cut or deferred. It is because of this structural problem that both Japan and the United States of America, which are recognized as having well-developed budgetary systems, opted in the mid-1950s for earmarking of road funds to ensure a stable flow of finances to support their road sectors.

2.2.4. A sustainable approach to road maintenance management in Nepal

According to Chalise (2005), Roads are the principal mode of transport in Nepal, with no other mode playing a significant role in Nepal's transport sector. Over the years, there has been considerable expansion of the road network from a meagre 376 km in 1950 to 16,835 km in 2002 (Nepal 2002). New road developments are taking place at a rate of about 700 km per year, of which about 100 km are strategic roads and the rest are local roads.

As Chalise (2005) pointed out, a policy shift in the maintenance of road assets was initiated with the realization that the transport system could only be sustained in the long run with strong commitment to preserving the existing infrastructure. Allocation of resources for maintenance will have to be based on the availability of resources and network priority. To ease pressure on the national budget, the investment on road maintenance will be recouped from user charges.

The negative impacts of inadequate investment on road maintenance came to light in 1988 when a study by SDC showed that Nepal was losing between 1 to 2 billion Nepalese rupees annually due to lack of proper road maintenance (SDC, 1988). Past road maintenance activities were largely ad hoc in nature responding only to pressing maintenance problems. Actors involved in the road sector have focused more on new development than on the maintenance of existing assets. This has ultimately harmed road users as they have had to bear higher vehicle operating cost. In the long run, failure to maintain roads also ensures the need for expensive rehabilitation and reconstruction. Despite developing a planned road maintenance management system comprised of routine, recurrent, periodic, and emergency maintenance, its implementation proved to be difficult. (Chalise, 2005)

2.2.5. Sustainable financing for the maintenance of Pakistan's Highways

Under-financing and over-reliance on road transportation in Pakistan have led to the rapid and premature deterioration of its road assets, which are valued at over US$ 41.6 billion. In order to address this problem and meet the highway maintenance needs of the country, the Government has started an off-budget financing arrangement by establishing a road fund. The National Highway Authority has introduced a fee-for-service system on national highways under its

jurisdiction. Toll revenues and receipts from other sources specifically earmarked for highway conservation are channeled through the road fund. (Farrukh, 2005)

According to Farrukh (2005), the transport sector currently accounts for about 10 per cent of Pakistan's GDP and 17.3 per cent of the gross capital formation. It comprises 35 per cent of Pakistan's annual fuel energy consumption. The sector generates a large number of employment opportunities, currently estimated at 2.3 million jobs or about 5.9 per cent of the employed labour force.

The performance of the transport system has been poor, with high economic losses from congestion and poor road quality. The situation is aggravated by a mismatch between supply and demand for transport infrastructure and services. It is estimated that the inadequate and inefficient transport system is imposing a cost to the economy in excess of Pakistan Rupees 220 billion or about 8.5 per cent of GDP, constraining economic growth, reducing export competitiveness and hindering social development. Pakistan's economic development depends much on the improvement and modernization of its key transport systems. To address this issue, the transport sector has been allocated 20 to 25 per cent of the Federal Public Sector Development Programme in recent years. Despite this, road maintenance expenditure has continued to fall short of the required amount. (Farrukh, 2005)

2.2.6. Financing roads in the United Republic of Tanzania: Challenges and strategies

According to Haule (2005), available funds for road maintenance in the United Republic of Tanzania declined so much over the years that by 1990 only 15 per cent of trunk roads and 10 per cent of rural roads were in good condition. To reverse the situation, the road sector has undergone reforms with far-reaching effects. As a part of this reform process, the Roads Fund and the Roads Fund Board were established by an act passed by the Parliament in 1998. The main functions of the Roads Fund Board are to collect and disburse funds and to monitor its utilization by roads agencies. The Board has made a number of achievements, including an increase in revenue collection, allocating 100 per cent of the maintenance budget based on available funds and ensuring a stable and regular flow of funds.

As Haule (2005) noted, the envisaged reforms helped to address many of the institutional problems, namely inadequate funding for road maintenance, cumbersome administrative and procurement procedures and unmotivated staff. These problems in the past led to considerable project delays, cost overruns, backlog of maintenance works and loss of confidence from road users as well as donors.

As described by Haule (2005), Road conditions in Tanzania have visibly improved owing to increased maintenance activities. For example, the percentage of roads in good condition under local authorities has increased from a mere 8.7 per cent in 2001-2002 to 25 per cent in 2003-2004. Many important rural roads that were impassable during the rainy season are now passable throughout the year.

2.2.7. Present Community Participation

As Isotalo (1992) pointed out, the lessons learned from rural roads programs in Africa have shown systemic shortcomings due to insufficient focus on road maintenance and community involvement. A recent Bank-wide review of rural road maintenance projects found widespread problems in project effectiveness and sustainability, and called for prescriptions of good practice to be followed in sector and project work. Experience from other community participatory projects of the Bank are also of great importance to rural road lending:

Firstly, local participation has in most cases been implemented through local governments, which typically have a very weak revenue basis, meager technical skills, and insufficient support of the Central Government and, in some cases, a lack of commitment to village level road problems.

Secondly, the users rather than a weak bureaucracy are better able to manage local operative assignments. Experience indicates that sustainability of projects, and in a large sense of development, cannot be achieved without mobilizing the beneficiaries and their institutions. Priority should therefore be given to engaging participation of the beneficiaries and strengthening of their institutions, and not so much to those of the government personnel. Lessons learned from traditional systems like the Umunganda in Rwanda and the Burungi-Bwansi in Uganda indicate that more sustainable resource mobilization can take place at a lower grass roots level under traditional chief or village head.

Thirdly, given the severe lack of resources at the local level, rural road development will require central funding and commitment. Experience has proved a small centralized agency, acting as a focal point for policy development, overall planning, funding and overseeing regional organizations, to be the most effective institutional arrangement for delivering these funds. Recommendations for the disbursement of these funds have included multi-tiered planning and programming systems, allowing the participation of national, sectorial, regional and local level communities.

Finally, locally administered fees, based on the benefit accrued through the use of the road, may be a more acceptable and suitable form of revenue for road maintenance than local government taxes based on land ownership. Options for revenue mobilization for rural road maintenance include financing from:

- ✓ Central government,
- ✓ External sources, multilateral or bilateral,
- ✓ Local revenues and
- ✓ Revenues based on the use of the road concerned.

In summary, one of the main reasons for the poor maintenance record of rural roads in Sub-Saharan Africa is the attempt to consolidate the rural road rehabilitation and maintenance only at the local government level, instead of approaching the basic traditional units of the society, that is, chieftaincies, villages and extended families. These grass roots entities have vested interests in the well-being of their own roads.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter presents the procedures to be used in conducting the study, focusing on research design, target population, sample and sampling procedures, research instruments, and data collection and analysis procedures.

3.2. Design of the study

Since the study is intended at assessing the role of CSP on roads maintenance projects, descriptive survey method was used in order to investigate and describe the roles of community and stakeholders' participation of roads maintenance projects. Quantitative approach was also used in the study.

3.3. Target Population

Target population is defined as all the members of a real or hypothetical set of people, events or objects to which a researcher wishes to generalize the results of the research study. The questionnaires, which are designed by the researcher were distributed to 55 respondents from ORA and zones who are direct involvement with the URRAP roads project works and 40 of the questionnaires were responded and collected in which its response rate constitutes for 72.73% . Therefore, the target population of the study was 40 respondents from ORA who are currently working as process owner, team leader and expert position.

Table 3.1: Summary of questionnaire distribution and response rate

SN	Respondent	Distributed	Responded	Response Rate (%)
1	ORA employees	55	40	72.73
	Total	**55**	**55**	**72.73**

Source: Own Survey, 2017

3.4. Data Sources

Both primary and secondary sources of data were used to get ample information about the CSP on URRAP roads construction and maintenance projects. The primary sources were used to get-first-hand information. The primary source was interview with Managers of Oromia Roads Authority and concerned process owners, team leaders and experts at regional and zonal level through survey questionnaires those have direct involvement on the work. The secondary source was used to strength the primary sources of data. The secondary sources are the second-hand information which includes ORA's different documents such as annual reports, journals, articles, reference materials, various books, websites, other published and unpublished sources and relevant documents were used to avoid the inadequacies of the data and to make the study reliable.

3.5. Instruments of Data Collection

Questionnaires, interviews, and document analysis were the main data gathering tools for this study. Regarding this, Creswell (2009) states that employing multiple data collection instruments help the researcher to combine, strengthen and amend some of the inadequacies and for triangulation of the data.

3.5.1. Questionnaires

Questionnaire was used to collect relevant and first-hand information from the respondents who are currently working on process owner, team leader and expert positions at the organization. The items of the questionnaire, which was designed by the researcher, was mainly close-ended questions and accompanied by some open ended ones.

The grounds why questionnaire was used is that it is easier to grip and is simpler for the respondents to reply to answer within a short period of time (Koul, 2008).

3.5.2. Interview

Structured interview was used to collect data from the managers of Oromia Roads Authority at regional level. The motive why structured interview employed is that the procedure to be used is

standardized and determined in the advance of the interview (Koul, 2008). Using this data gathering instrument is imperative to get substantial data about the issue under study.

3.5.3. Document Analysis

Document analysis was also used to gather the essential information about the role of CSP on URRAP roads construction to strengthen the data obtained through questionnaires and interview. Due to this reason, documents, books, articles, and reports were used. In addition to this, Best and Khan (1989) states that document analyses are important and relevant sources of data and useful in yielding information and exploring educational practice.

3.6. Data Analysis Techniques

The data from the completed questionnaires was studied, re-coded and entered into the computer using the Statistical Package for Social Sciences (SPSS) version 22. Descriptive statistics were employed to analyze quantitative data. The descriptive statistics included frequency counts, means and percentages.

3.7. Validity and Reliability of Research Instrument

Validity and reliability are essential ways by which any research instruments are evaluated before being undertaken to the field for data collection.

3.7.1 Validity

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure. According to Paton (2000), validity is the quality attributed to proposition or measures to the degree to which they conform to established knowledge or truth. Content validity of the research instruments is established in order to make sure that they reflect the content of the concepts in question and it is the extent to which a measuring instrument provides adequate coverage of the topic under study. The researcher went through the instruments and compared them with the set objectives and ensures that they contained all the information that answers the set questions and address the objectives.

3.7.2 Reliability

According to Mugenda and Mugenda (2003), the reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials. In order to test the reliability of the instrument to be used in the study, the Cronbach's alpha method was used and the result was 0.891 which is possible to proceed to the distribution and collection data from the respondents for the study. The instruments were taken for piloting on a population that is similar to the target population in ERA. The objective of piloting was to eliminate some ambiguous items, establish if there were any problems in administering the instruments, test data collection instructions, establish the possibility of the study, get ahead and amend any sound and procedural difficulties regarding the study, and allow preliminary data analysis. Piloting also assisted the researcher in testing the reliability of the instrument. The pilot study was conducted at Ethiopian Roads Authority by involving 10 respondents.

3.8. Ethical Issues

The information obtained from this study was used for the fulfillment of the researcher's academic requirement. The information was not divulged to any third parties at any cost. Apparent explanation about the purpose and usefulness of the study and by excluding names and other identifying numbers from the questionnaire in order to pledge confidentialities of information and assure the respondent not participating in the research could not cause any harm and they were not disclosed to protect their rights and personal details was limited to general information.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATIONS, DISCUSSION AND INTERPRETATION

4.1. Introduction

This chapter presents the analysis, discussions and findings on CSP on roads maintenance projects. The researcher administered questionnaires and used interviews to collect the data. The data that was collected was analyzed to be able to come up with results.

4.2 Background Information of the Respondents

The information collected from respondents involved their gender profile, age bracket, working experience, academic qualifications and position at the organization. The responses are given in subsections below.

The research results showed that 65.0% of the respondents were male and 35.0% of the respondents were female. Regarding the age bracket, the research findings indicated that 50.0% of the respondents were in the age bracket of 31-40 years; 22.50% of the respondents were in age bracket of 41-50 years; 17.50% of the respondents were in age bracket of 20-30 years and the 10.0% of the respondents were in the age bracket of 51 and above. Additionally, research responses indicated that 75.0% of the respondents had acquired degree level of academic qualification while the 25.0% of the respondents has acquired master's level of academic qualification. The research responses further showed that 52.5% of the respondents have worked in the organization for a period of 5 to 10 years while 47.5% of the respondents have worked in the organization for a period of above 10 years. Furthermore, the research responses showed that 52.5% of the respondents are working on the position of expert in the organization; 30.0% of the respondents are working on the position of team leader while 17.5% of the respondents are working on the position of process owner.

Table 4.1: Background Information of the Respondents

Background Information	Frequency	Percent
Gender Profile		
Male	26	65.0
Female	14	35.0
Total	**40**	**100.0**
Age Bracket		
20-30 years	7	17.5
31-40 years	20	50.0
41-50 years	9	22.5
Above 50 years	4	10.0
Total	**40**	**100.0**
Education Level		
Degree	30	75.0
Masters	10	25.0
Total	**40**	**100.0**
Work Experience		
5 to 10 years	21	52.50
Above 10 years	19	47.50
Total	**40**	**100.0**
Position at the Organization		
Expert	21	52.5
Team Leader	12	30.0
Process Owner	7	17.5
Total	**40**	**100.0**

Source: Own Survey, 2017

4.3. Community and Stakeholders' Participation on Roads Maintenance Projects

The aim of the study was to assess the community and stakeholders' participation on roads maintenance projects. The same was sought from the respondents and the findings presented in the following sub-sections.

4.3.1. Community and Stakeholders Participation on Construction of URRAP Roads Projects

In line with the first objective, the study wanted to assess the role of CSP on the construction of URRAP roads projects in GTP I.

4.3.1.1. CSP on Construction of URRAP Roads Projects

The study first asked the respondents to indicate CSP on the success of the construction of URRAP roads projects that was planned and undertaken in GTP I. Their responses presented on the table 4.2.

Table 4.2: CSP on Construction of URRAP Roads Projects

Level	Frequency	Percent
Very High	6	15.00
High	14	35.00
Medium	19	47.50
Low	1	2.50
Total	**40**	**100.00**

Source: Own Survey, 2017

The research findings showed that majority of the respondents (47.50%) replied that CSP on the success of URRAP roads construction that was planned and performed in GTP I was medium; 35.0% of the respondents answered that CSP on the success of URRAP roads construction that was planned and performed in GTP I was high and 15.0% of the respondents replied that CSP on the success of URRAP roads construction that was planned and performed in GTP I was very high while minority of the respondents 2.50% responded that community and stakeholders' participation was low. This implies that the URRAP roads projects planned and performed in GTP

I were successful in that more than 28,100 kms were constructed which accounts for 93.6% of the planned.

4.3.1.2. The types of CSP on Construction of URRAP Roads Projects

The study further investigated the form of contributions that communities and stakeholders were participate more on the construction of URRAP roads projects during GTP I. The result was responded by the respondents who were participated in the questionnaires. Their response presented on table 4.3.

Table 4.3: The Types of Contributions by Community and Stakeholders

Category	Frequency	Percent
In cash	25	62.50
In Kind	1	2.50
Free labor	13	32.50
Other	1	2.50
Total	**40**	**100.00**

Source: Own Survey, 2017

The research results showed that majority of the respondents (62.50%) replied that communities and stakeholders were participated more by cash contribution on the construction of URRAP roads projects in GTP I and 32.5% replied that communities and stakeholders were participated more by free labor contribution on the construction of URRAP roads projects in GTP I while minority of the respondents (2.50%) responded that communities and stakeholders were participated more by 'in kind and other' contributions on the construction of URRAP roads projects in GTP I. The effectiveness of the methods was measured in terms of URRAP roads projects constructed and the road asset of the region increased to 47,655 kms of which URRAP constitutes about 59.14%.

4.3.1.3. The Types of Methods used to Achieve CSP on the construction of URRAP roads projects and to make the participation more sustainable

The study also further sought to investigate the types of methods used to achieve CSP on the construction of URRAP roads projects in GTP I and to make the participation more sustainable.

The research results showed that majority of the respondents replied that different types of methods have been used to achieve CSP on the construction of URRAP roads projects in GTP I to make the participation more sustainable. These methods include annual awareness creation (on meetings, orientations and congregations), bazar, celebrating road development week on free labour & different contributions, by experience sharing of best practices and creating sense of competition among kebeles, woredas and zones, by giving recognition for the contributors.

4.3.1.4. Effectiveness of the Methods used

The study also wanted to know from the respondents that how the methods used were effective in realizing the CSP on the construction of URRAP roads projects in GTP I. The results presented on the following table.

Table 4.4: Effectiveness of the Methods used

Level	Frequency	Percent
High	18	45.00
Medium	21	52.50
Low	1	2.50
Total	**40**	**100.00**

Source: Own Survey, 2017

The research findings indicated that majority of the respondents (52.50%) responded that the effectiveness of the methods used for the achievement of CSP on the construction of URRAP roads projects in GTP I was medium and 45.0% of the respondents answered that the effectiveness of the methods used for the achievement of CSP on the construction of URRAP roads projects in GTP I was high while minority of the respondents (2.50%) replied that the effectiveness of the

methods used for the achievement CSP on the construction of URRAP roads projects in GTP I was low.

4.3.2. Community and Stakeholders' Participation on Maintenance of URRAP Roads Projects

In line with the second objective, the study sought to assess whether communities and stakeholders were participate on maintenance of URRAP roads projects in GTP I.

4.3.2.1. Community and Stakeholders' Participation on Maintenance of URRAP Roads Projects

The study further asked to know whether communities and different stakeholders were participated on maintenance of URRAP roads projects and the findings presented on table 4.5.

Table 4.5: Community and Stakeholders' Participation on Maintenance of URRAP Roads Projects

Category	Frequency	Percent
Yes	8	20.00
No	32	80.00
Total	**40**	**100.00**

Source: Own Survey, 2017

The research results indicated that majority of the respondents (80.00%) responded that communities and stakeholders were not participated on maintenance of URRAP roads projects while minority of the respondents (20.00%) replied that communities and stakeholders were participated on maintenance of URRAP roads projects. This implies that most of the URRAP roads that were constructed in GTP I were not maintained. There are few zones and woredas that maintain URRAP roads projects on limited road segments with simple maintenance activities by communities on free labour contribution. The maintained URRAP roads projects constituted less than 7% (1939.3 kms) of the constructed roads projects and this maintenance work was undertaken only in six zones (East Hararge, Jimma, West Wollegga, North Shoa, East Wollegga and Bunno Bedelle) of the region. This requires special attention on from all the conrned bodies to care, repair, maintain and protect the constructed URRAP roads projects. The maintenance work performed in these zones presented on the following table.

Table 4.6. URRAP roads maintenance undertaken by community participation on free labour contribution

SN	Zone	Road Maintained in km	Number of participants	Estimated amount in money
1	Bunno Bedelle	54.5	17,060	1,535,400.0
2	East Hararge	786.2	246,108	22,149,720.0
3	East Wollegga	76.4	23,916	2,152,440.0
4	Jimma	275.1	86,116	7,750,440.0
5	North Shoa	68.1	21,318	1,918,620.0
6	West Wollegga	669	209,421	18,847,890.0
	Total	**1,929.3**	**603,939**	**54,354,510.0**

Source: ORA, 2017

4.3.2.2. How the constructed URRAP roads projects were maintained

The study also wanted to know how the constructed URRAP roads projects were maintained. The results presented on the following table.

Table 4.7: The Maintenance of URRAP Roads Projects

Category	Frequency	Percent
Maintained by existing roads maintenance branches	8	20.0
Not Maintained	32	80.0
Total	**40**	**100.00**

Source: Own Survey, 2017

The research findings indicated that majority of the respondents (80.0%) replied that URRAP roads projects were not maintained while the minority of the respondents (20.0%) replied that URRAP roads projects were maintained by the existing roads maintenance branches.

4.3.2.3. Types of Community and Stakeholders' Participation on Maintenance of URRAP Roads projects in future

The study also wanted to identify the types of community and stakeholders' participation on maintenance of URRAP roads projects in future. The results presented on the following table.

Table 4.8: Types of Community and Stakeholders' Participation on Maintenance of URRAP Roads projects in future

Category	Frequency	Percent
In cash	21	52.50
In Kind	2	5.00
Free labour	17	42.50
Total	**40**	**100.00**

Source: Own Survey, 2017

The research result indicated that majority of the respondents (52.50%) responded that they wanted to participated communities and different stakeholders 'in cash' contribution for maintenance of URRAP roads projects and 42.50% of the respondents answered that they wanted to participated communities and different stakeholders in 'free labour' contribution for maintenance of URRAP roads projects while minority (5.00%) replied that they wanted to participated communities and different stakeholders 'in kind' contribution for maintenance of URRAP roads projects.

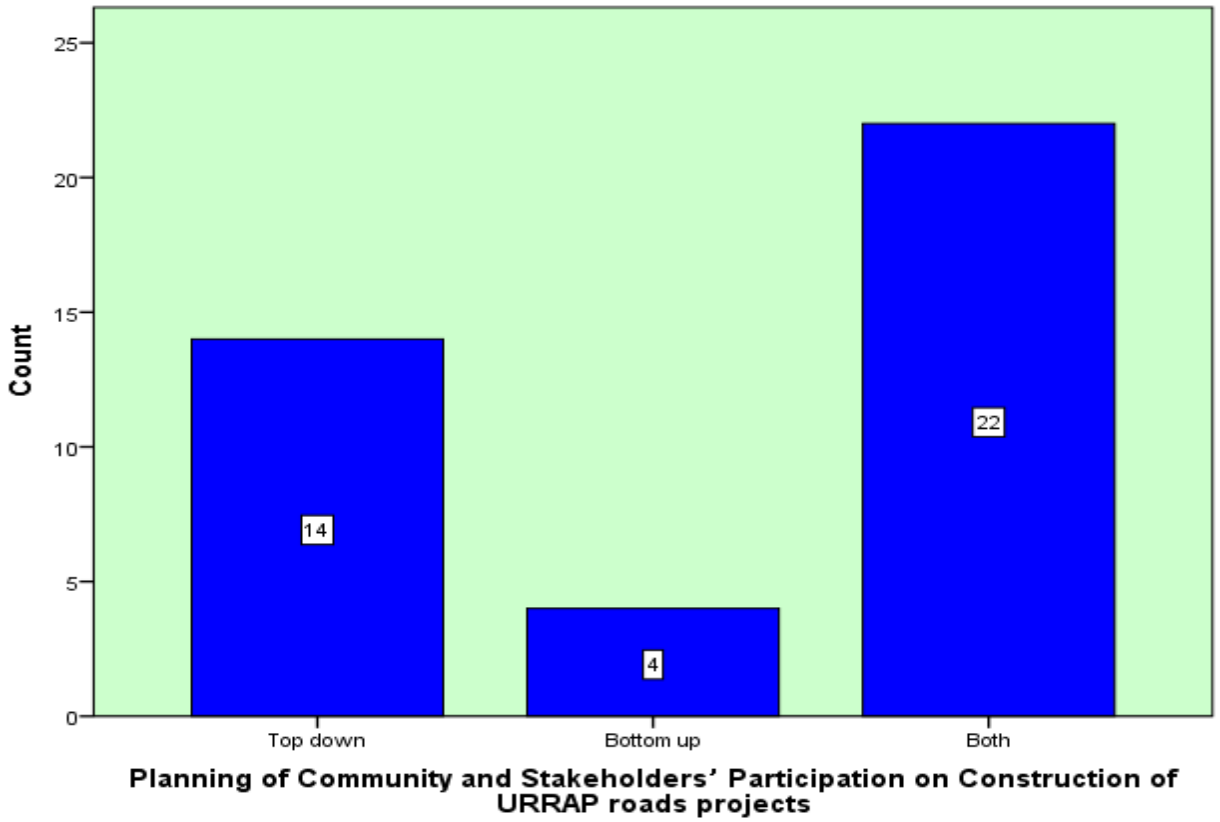
4.3.3. Management of Community and Stakeholders' Participation

In line with the third objective, the study wanted to find out how the community and different stakeholders' participation was managed in GTP I.

4.3.3.1. Planning of Community and Stakeholders' Participation on Construction of URRAP Roads projects

The study further sought to know how community and stakeholders' participation on construction of URRAP roads projects was planned. The result was illustrated on figure 4.1.

Figure 4.1: Planning of CSP on Construction of URRAP Roads projects



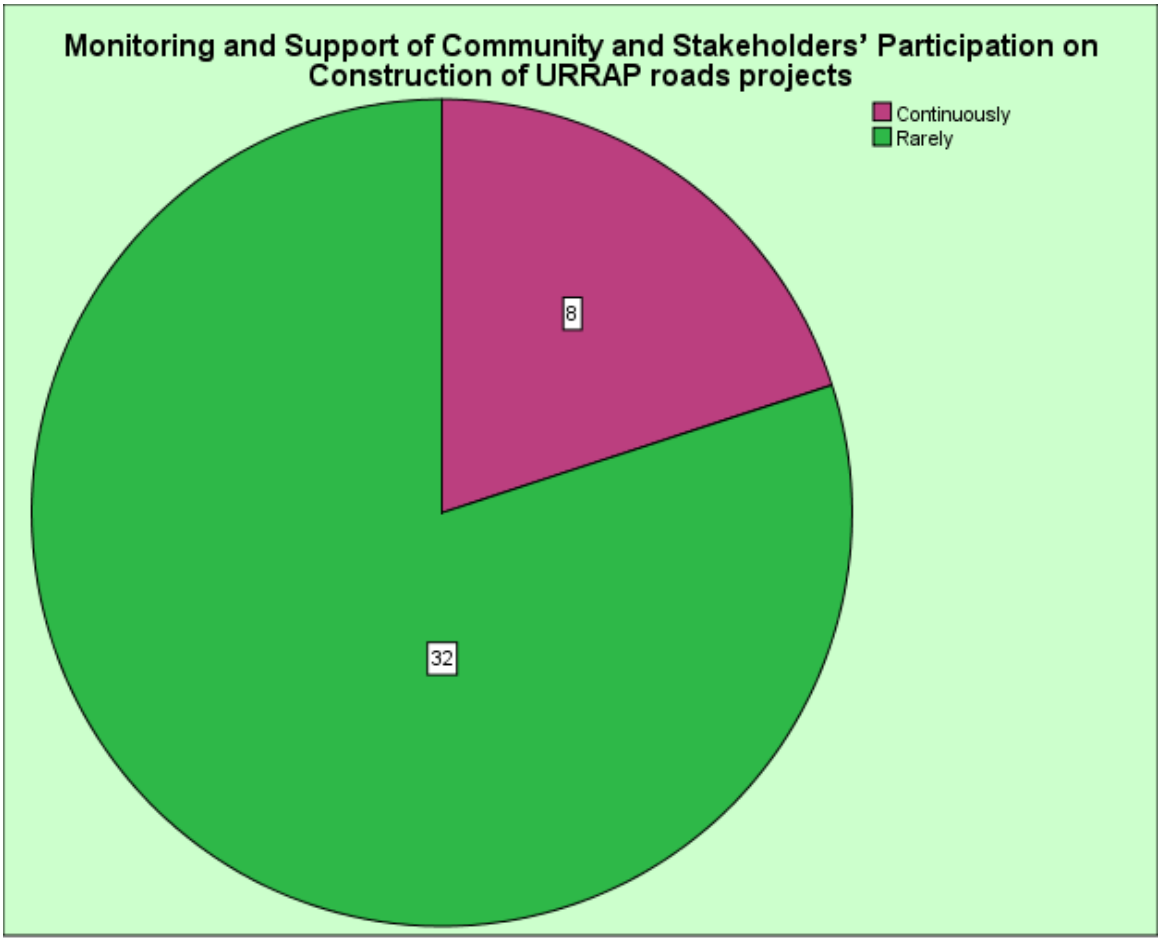
Source: Own Survey, 2017

The research findings showed that majority of the respondents (55.0%) replied that CSP was planned both at top down from the regional level and bottom up from the woredas level and 35.0% of the respondents replied that CSP was planned from top down while minority of the respondents (10.0%) responded that CSP was planned from bottom up.

4.3.3.2. Monitoring and Support of CSP on Construction of URRAP roads projects

The study also sought to know the monitoring and support of CSP on construction of URRAP roads projects in GTP I. The findings of the study was presented on the following figure.

Figure 4.2: Monitoring and Support of CSP on Construction of URRAP roads projects



Source: Own Survey, 2017

The research findings indicated that majority of the respondents (80.0%) answered that the monitoring and support of community and stakeholders' participation in GTP I was undertaken on 'rarely' on the construction of URRAP roads projects while minority of the respondents (20.0%) replied that the monitoring and support of community and stakeholders' participation in GTP I was undertaken 'continuously' on the construction of URRAP roads projects.

4.3.3.3. Evaluation of CSP on Construction of URRAP roads projects

The study also sought to investigate how CSP was evaluated in GTP I plan regarding the construction of URRAP roads projects. The results presented on table 4.9.

Table 4.9: Evaluation of CSP on Construction of URRAP roads projects

Category	Frequency	Percent
Increasing	4	10.00
Decreasing	36	90.00
Total	**40**	**100.00**

Source: Own Survey, 2017

The research result showed that majority of the respondents (90.0%) replied that CSP on the construction of URRAP roads projects was decreasing while minority of the respondents (10.0%) replied that CSP on the construction of URRAP roads projects was increasing.

4.3.3.4. Reasons for decline in Community and Stakeholders' Participation

The study also sought to investigate the reasons for the decline in community and stakeholders' participation.

The research result showed that majority of the respondents replied that there are numerous reasons for the decline in CSP; among these, best practices of the community and stakeholders' participation was not promoted and expanded as was expected, the communities those have accessed by the roads first were refused to contribute as before, the money contributed by the community lacked transparency and not managed properly, all kebeles were not equally served by the roads access, community's money was not audited properly, the collected money was not used for roads.

4.3.3.5. Evaluation of Community and Stakeholders' Participation on Construction of URRAP roads projects in terms transparency and free from corruption

The study further wanted to identify whether CSP 'in cash contribution' for construction of URRAP roads projects was transparent and free from corruption or not. The findings presented on table 4.10.

Table 4.10: Evaluation of Community and Stakeholders' Participation on Construction of URRAP roads projects in terms transparency and free from corruption

Category	Frequency	Percent
Transparent but not free from corruption	10	25.00
No transparent and not free from corruption	30	75.00
Total	**40**	**100.00**

Source: Own Survey, 2017

The research response depicted that majority of respondents (75.0%) responded that the contribution of communities and stakeholders in cash form for the construction of URRAP roads projects during GTP I lacked transparency and not free from corruption while minority of the respondents (25.0%) replied that the contribution of communities and stakeholders in cash form for the construction of URRAP roads projects during GTP I was transparent but not free from corruption.

4.3.3.6. Preparation of uniform directives for Community and Stakeholders' Participation

The study also wanted to know whether uniform directive was prepared for community and different stakeholders' participation for its implementation or not. The findings presented on the following table.

Table 4.11: Preparation of uniform directives for Community and Stakeholders' Participation implementation

Category	Frequency	Percent
Yes	18	45.00
No	22	55.00
Total	**40**	**100.00**

Source: Own Survey, 2017

The research findings showed that majority of the respondents (55.0%) replied that uniform directive was prepared and used for community and different stakeholders' participation for its implementation in GTP I while minority of the respondents (45.0%) answered that uniform directive was not prepared and used for community and different stakeholders' participation for its implementation in GTP I.

4.3.3.7. How communities and stakeholders participation was managed

The study also sought to know how communities and stakeholders participation was managed in GTP I.

The research findings showed that majority of the respondents responded that communities and stakeholders participation was managed in GTP I was characterized poor management system, there were no continuous supervision and follow up from the concerned bodies specially from ORA and its subsequent structures at zonal level, there were established committees at each level but not well managed accordingly mostly left for roads authorities.

4.3.3.8. Problems and Challenges in managing community and stakeholders' participation

The study also sought to identify the problems and challenges faced in managing community and stakeholders' participation in GTP I. The result presented on table 4.12.

Table 4.12: Problems and Challenges in managing community and stakeholders' participation

Category	Frequency	Percent
Yes	31	77.50
No	9	22.50
Total	**40**	**100.00**

Source: Own Survey, 2017

The research findings indicated that majority of respondents (77.50%) replied that they faced problems and challenges in managing community and stakeholders' participation while minority of the respondents (22.50%) responded that they did not faced problems and challenges in managing community and stakeholders' participation in GTP I.

4.3.3.9. The problems and challenges

The study also sought to investigate the problems and challenges that ORA encountered in managing community and stakeholders' participation in GTP I.

The research findings indicated that majority of respondents replied that there were different problems and challenges encountered in GTP I; among these misuse of money collected from community, problems related to receipt distribution & collection and its audit, the committees were not functioning as was expected, the management was left to roads authorities, corruption, utilizing for self, community lose confidence due to the corruptions, resistance of the community in accepting labour based technology, no time limit for the money collected to deposit in banks.

4.3.3.10. How these problems and challenges were solved?

The study also wanted to know how the problems and challenges were solved. The research findings showed that majority of the respondents replied that the problems and challenges that were encountered in managing community and stakeholders' participation in GTP I were minimized by different mechanisms, even though these mechanisms were not effective as was expected, among these; annual awareness creations, auditing the receipts and take measures through arbitration at court.

4.3.3.11. Planning for the management of CSP on Maintenance of URRAP roads projects

The study also sought to know whether the management of community and stakeholders' participation on maintenance of URRAP roads projects was planned or not.

The research findings indicated that majority of the respondents replied that the management of CSP on maintenance of URRAP roads projects was not yet planned and this entails special attention due to the fact that the constructed roads could be deteriorated if not maintained properly on time.

4.3.4. Work Integration between ORA and other Pertinent Organization

Following the fourth objective, the study wanted to identify the work integration between ORA and other pertinent organizations in achieving CSP on the construction of URAP roads projects.

4.3.4.1. Evaluation of work integration and cooperation between ORA and other pertinent organizations

The study also asked to know the work integration and cooperation between ORA and other pertinent organizations in achieving CSP in GTP I and the result presented on the following table.

Table 4.13: Evaluation of work integration and cooperation between ORA and other pertinent organizations

Level	Frequency	Percent
Good	21	52.50
Medium	15	37.50
Low	4	10.00
Total	**40**	**100.00**

Source: Own Survey, 2017

The research findings indicated that majority of respondents (52.50%) answered that work integration and cooperation between ORA and other pertinent organizations in achieving community and stakeholders' participation in GTP I was good and 37.5% of the respondents replied that work integration and cooperation between ORA and other pertinent organizations in achieving community and stakeholders' participation in GTP I was medium while minority of the

respondents (10.00%) replied that the work integration and cooperation between ORA and other pertinent organizations in achieving community and stakeholders' participation in GTP I was low.

4.3.4.2. Work integration and cooperation between ORA and other pertinent organizations in achieving CSP on maintenance of URRAP roads projects

The study also sought to identify the work integration and cooperation between ORA and other pertinent organizations in achieving CSP on maintenance of URRAP roads projects in GTP I.

The research results showed that the work integration and cooperation between ORA and other pertinent organizations should be smooth for performing maintenance of URRAP roads projects particularly with Finance and Economic Cooperation for budget allocation and directions, Road Fund for any budget support, Roads Maintenance Branches for proper professional planning, maintenance supports, machinery and technical supports, Administrative offices for community awareness creation and political willing and acceptance.

4.3.5. Support from Administrative Bodies

In line with the fifth objective, the study required to know the support given by the administrative bodies to community and stakeholders participation in realizing the construction of URRAP roads projects in GTP I.

4.3.5.1. Evaluation of support from administrative bodies

The study also sought to investigate the support given by the administrative bodies to CSP in realizing the construction of URRAP roads projects in GTP I. The findings presented on table 4.14.

Table 4.14: Evaluation of support from administrative bodies

Level	Frequency	Percent
High	8	20.00
Medium	27	67.50
Low	5	12.50
Total	**40**	**100.00**

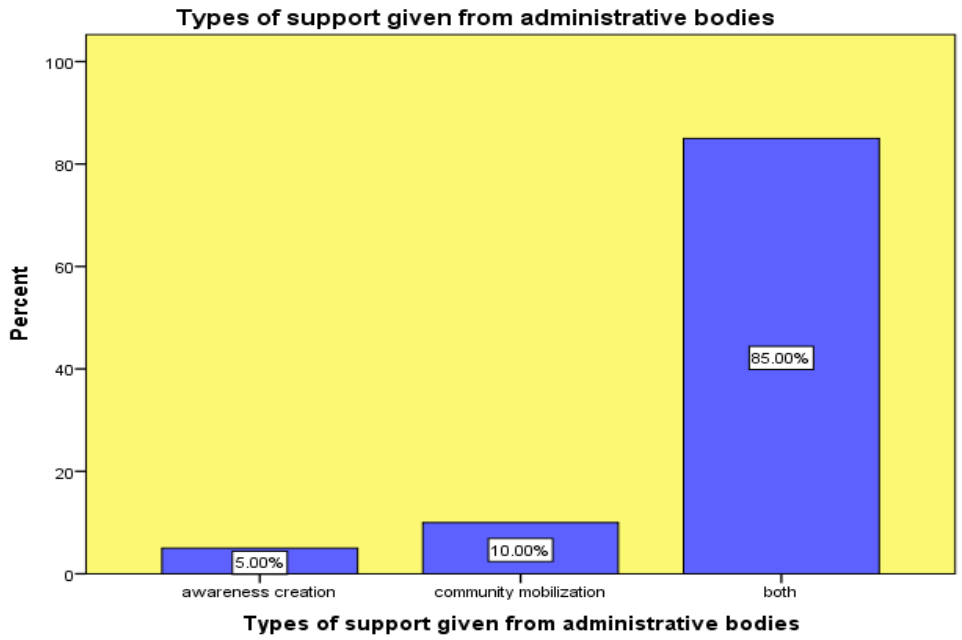
Source: Own Survey, 2017

The research results showed that majority of respondents (67.50%) responded that the support given by the administrative bodies to community and stakeholders' participation in realizing the construction of URRAP roads projects in GTP I was medium and 20.0% of the respondents replied that the support given by the administrative bodies to community and stakeholders' participation in realizing the construction of URRAP roads projects in GTP I was high while minority of the respondents (12.5%) answered that the support given by the administrative bodies to community and stakeholders' participation in realizing the construction of URRAP roads projects in GTP I was low.

4.3.5.2. Types of support given from administrative bodies

The study also wanted to identify the types of support given from administrative bodies to community and stakeholders' participation in realizing the construction of URRAP roads projects in GTP I. The results illustrated on the following figure.

Figure 4.3: Types of support given from administrative bodies



Source: Own Survey, 2017

The research findings showed that majority of respondents (85.0%) replied that the support given by administrative bodies to CSP in GTP I was on both awareness creation and community

mobilization and 10.0% of the respondents responded that the support given by administrative bodies to communities and stakeholders' participation in GTP I was on community mobilization while minority of the respondents (5.00%) answered that the support given by administrative bodies to communities and stakeholders' participation in GTP I was on awareness creation.

4.3.5.3. Evaluation of attention given by the administrative bodies to ORA

The research study further sought to identify the attention given by the administrative bodies to ORA in achieving CSP in GTP I. The results presented on the following table.

Table 4.15: Evaluation of attention given by the administrative bodies to ORA

Level	Frequency	Percent
High	15	37.50
Medium	22	55.00
Low	3	7.50
Total	**40**	**100.00**

Source: Own Survey, 2017

The research response showed that majority of the respondents (55.0%) replied that the attention given by the administrative bodies to ORA in achieving community and stakeholders' participation in GTP I was medium; 37.5% of the respondents answered that the attention given by the administrative bodies to ORA in achieving community and stakeholders' participation in GTP I was high while minority of the respondents (7.5%) responded that the attention given by the administrative bodies to ORA in achieving community and stakeholders' participation in GTP I was low.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS

From the findings of the research, the following conclusions can be drawn with regard to the community and stakeholders' participation on roads maintenance projects:

The research findings showed that CSP on the success of URRAP roads construction in GTP I was high and they had participated more in cash and free labor contribution. This contribution should be applied to the maintenance of URRAP roads projects with certain improvements relevant to roads maintenance practices. Different types of methods have been used to achieve community and stakeholders' participation on the construction of URRAP roads projects in GTP I and to make the participation more sustainable. These methods include annual awareness creation (on meetings, orientations and congregations), bazar, celebrating road development week, by giving recognition for the contributors, etc. and the effectiveness of these methods were high.

The findings also showed that communities and stakeholders were not participated on maintenance of URRAP roads projects in GTP I. This implies that much emphasis was not given to the maintenance as that of construction. The community and stakeholders' participation was planned both at top down from the region and bottom up from the woredas and it was monitored and followed up rarely. This is the area that requires certain improvements to be monitored continuously and followed up closely. Even though it has showed a good progress at the beginning of the program, community and stakeholders' participation was decreasing due to many reasons among these the major one was that attention was not given to community and stakeholders' participation rather than dependent on government assigned budget.

Furthermore, the participation and contribution made by the community and different stakeholders in GTP I was lacked transparency and not free from corruption especially in terms of its collection and implementation; this implies that community and stakeholders participation and contribution for the construction URRAP roads projects in GTP I was not managed properly.

The research findings also showed that the work integration and cooperation between ORA and other pertinent organizations in achieving community and stakeholders participation in GTP I was good and if improved for future, it could help in realizing the participation and contribution of the communities and stakeholders for maintenance of URRAP roads projects in next time for its sustainability and serviceability.

The research findings also indicated that the support given by the administrative bodies to community and stakeholders' participation in realizing the construction of URRAP roads projects in GTP I was medium and the administrative bodies gave support on both awareness creation and community mobilization. The attention given by the administrative bodies to ORA in achieving community and stakeholders' participation in GTP I was medium which implies that this area should have to be improved for future community and stakeholders participation for maintenance of URRAP roads projects.

5.2. RECOMMENDATIONS

The study therefore recommended the following:

☞ It would have been better if communities regularly well awared that the road is their own property for which they should care, repair, maintain and protect from any damage by others. This awareness should be given on continual basis to the nearby society in particular and to the community in general who benefit directly as well as indirectly timely by the woredas officials and experts.

☞ It would have been better if work plan and schedule of URRAP roads maintenance prepared in collaboration with kebeles to consider and inculcate their specific needs; work with rural community mobilization arrangements/ teams in order to group and mobilize the work teams and consider the communities' capacity to contribute, manage and supervise maintenance of the URRAP roads projects.

☞ It would have been better if the role of government focuses on strengthening maintenance capacities of the already operating Road Maintenance Branches;

- Machineries wise: dozer, grader, roller, excavator, dump trucks, low beds, etc. It is a long tradition to dump old and worn out machineries from construction units to maintenance units and the new machineries to construction units and this emanates from improper stand, view and treatment for maintenance. Therefore, due attention should be given for road maintenance as that of road construction projects by assigning sufficient machineries so as to reduce the cost of maintenance.

- By financial support (budget allocation) for technical staff specially by paying them attractive salary, providing training, recruiting new employees, transfers.

- With Garage (ideally all the branches have their own mini garages but these garages do not have even minor machineries, equipments, hand tools; therefore could not give full-fledged services thereby subjected to expensive external garage services which cannot be with stood with their limited annually allotted government budget from the Road Fund.

☞ Due to the complexity of its management and lack of interest to be engaged on such tiresome community participation schemes, it is better to encourage the community on labor than on cash contributions - inject money contribution slowly but continuously in increasing amounts with community consultation and awareness creation, above all, on genuine interest and love – this is the way in which ownership deepens its roots.

☞ It would have been better if appropriate care should be taken at the beginning not to fail from the start on community contribution and stakeholders participation; and to better realize these participations, woredas should allocate adequate budget for road maintenance in their respective administrative boundaries and celebrations of road maintenance days at woredas level should be declared for a week or as appropriate to participate stakeholders one after another: civil servants, the community, the leaders, the police and other organizations at the area; encourage event celebrations by maintaining roads (exhibition, bazar, etc.), support with media publicity and thanks giving and recognitions for the participation by celebrities.

☞It would have been better if there is capacity building for the woredas to transfer the ownership of the road asset management and this should be done from planning to execution phase and the

capacity building should be given not only on property registration but also on property administration, road asset management practices and be encouraged to participate on different training activities to build their capacities.

☞ It would have been better if road fund established, which will have its working manuals, directives, etc., first at woredas level, then, at regional level to solicit and manage resources gained from community contributions, stakeholders' participation, government and NGOs supports.

☞ It would have been better if financial management of community and stakeholders contributions and participation have transparency on income and expenses and there should be responsible structures (bodies and individuals) on receipt collection, recording, documentation, follow up and audit; if problems occurred, corrective measures should be taken via local arbitration, administrative measures and at court.

☞ It would have been better if monitoring, close follow up, evaluation and feedback should be undertaken on continual basis to make community and stakeholders' participation sustainable on road maintenance activities and community contributions in cash', 'in kind' and 'on free labor' form; and stakeholders' contributions: in money form, machinery support, technical support as well as material supports.

☞ It would have been better if the work integration and cooperation between ORA and other pertinent organizations should be improved for the maintenance of URRAP road projects particularly Finance and Economic Cooperation for budget allocation and directions, Road Fund for any budget support, Roads Maintenance Branches for proper professional planning, maintenance supports, machinery and technical supports; Administrative offices for community awareness creation and political willing and acceptance.

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APPENDICES

APPENDIX A: LETTER

Dear participant,

I am currently working a research project on the **"Community and Stakeholders' Participation on Roads Maintenance Projects"**, as a partial fulfillment for my M.A study in Project Management at Addis Ababa University. This research is aimed to assess and analyze community and stakeholders' participation on roads maintenance projects specifically URRAP roads projects in Oromia.

To successfully conduct this research, it is mandatory to investigate the issues from different insights by involving different stakeholders and professionals. In this regard, you are the one who can give the correct information; hence I kindly request you to respond to the questions. The result of this findings help ORA in undertaking the road development and maintenance in the region.

I would like to confirm you that your response will be kept strictly confidential and it will be used exclusively for the purpose of this research. Besides, your swift response is enormously important in order to finalize the research timely and I would appreciate if you complete and return it within a short period of time of your receipt of same.

Your cooperation is highly appreciated in advance, and looking forward to receiving your response.

Yours faithfully,

Alemayehu Denboba

Addis Ababa University,

College of Business and Economics

School of Commerce

Department of Project Management

My Address

Tel: +251913720368

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Thank you very much!

APPENDIX B: QUESTIONNAIRES

Please tick (√) or circle the appropriate answer for your opinion.

PART A. GENERAL INFORMATION

1. Please indicate your gender
   - A. Male ☐
   - B. Female ☐
2. Please indicate your age from the categories below
   - A. 20-30 years ☐
   - B. 31-40 years ☐
   - C. 41-50 years ☐
   - D. above 50 years ☐
3. Kindly indicate your highest academic qualification.
   - A. Diploma ☐
   - B. Degree ☐
   - C. Masters ☐
   - D. Ph. D ☐
4. How long have you worked in ORA?
   - A. less than 3 years ☐
   - B. 3 to 5 years ☐
   - C. 5 to 10 years ☐
   - D. above 10 years ☐
5. What is your current responsibility at ORA
   - A. Process Owner ☐
   - B. Team Leader ☐

C. Expert ☐

D. Other ☐

PART B. COMMUNITY AND STAKEHOLDERS' PARTICIPATION ON ROADS MAINTENANCE PROJECTS

I. Community and Stakeholders' Participation on Construction of URRAP Roads Projects

1. How did you evaluate community and stakeholders' participation on the success of the construction of URRAP roads projects that was planned during GTP I?

A. Very High

B. High

C. Medium

D. Low

E. Very low

2. In which form of contribution that communities and stakeholders were participate more?

A. In cash

B. In Kind

C. Free labor

D. Other

3. What types of methods you have been used to achieve community and stakeholders' participation on the construction of URRAP roads projects and to make the participation more sustainable?

_____

_____

4. How these methods were effective?

A. High

B. Medium

C. Low

D. Not Effective

II. Community and Stakeholders' Participation on Maintenance of URRAP Roads Projects

1. Did communities and stakeholders' participate on the maintenance of URRAP roads projects?
   A. Yes
   B. No
2. If your answer for the above question is 'yes', in which kind of contribution that communities and stakeholders were participate?
   A. In cash
   B. In Kind
   C. Free labor
   D. Other
3. If your answer of question no '1' is **No**, how was the constructed URRAP roads projects were maintained and sustained for their future service sustainability?
   A. Maintained by existing road maintenance branches
   B. Not maintained
5. In which form of participation you want to participate the community and different stakeholders for the maintenance of URRAP roads projects?
   A. In cash
   B. In Kind
   C. Free labour
   D. Other

III. Management of Community and Stakeholders' Participation

1. How community and stakeholders' participation was planned for the achievement the construction of URRAP roads projects during GTP I?
   A. Top down
   B. Bottom up
   C. both

D. Not planned

2. How the achievement of community and stakeholders' participation on the construction of URRAP roads projects was monitored and supported?

A. Continuously

B. Rarely

C. Not undertaken

3. How community and stakeholders' participation was evaluated in GTP I plan regarding the URRAP roads construction?

A. Increasing

B. Decreasing

C. Remain constant

D. Not known

4. If your answer on no 3 is 'b', what are the reasons for the decline? Please state the reasons.

_____

_____

5. How did you evaluate community and stakeholders' participation in terms of transparency and free from corruption?

A. Transparent and free from corruption

B. Transparent but not free from corruption

C. No transparent and not free from corruption

D. Cannot be determined

6. If your answer for the above question is 'B' how the corruption problem was solved?

_____

_____

7. Did uniform directive prepared for community and different stakeholders' participation for its implementation?

A. Yes

B. No

8. How community and stakeholders' participation on the construction and maintenance of URRAP roads projects was managed?

_____
_____

9. In managing community and stakeholders' participation, did you face problems and challenges?

A. Yes
B. No

10. If the answer for the above question is 'Yes', what are these problems and challenges?

_____
_____

11. How these problems and challenges were solved?

_____
_____

12. How did you have planned for the management of community and different stakeholders' participation on maintenance of URRAP roads projects?

_____
_____

IV. Work Integration between ORA and other Pertinent Organization

1. How did you evaluate the work integration and cooperation between your office and the concerned organizations in achieving community and stakeholders' participation on the construction and maintenance of URRAP roads projects?
   A. Very Good
   B. Good
   C. Medium
   D. Low
   E. No integration and cooperation
2. Please specify the work integration and cooperation between your organization and the concerned bodies in achieving community and stakeholders' participation for maintenance of URRAP roads projects

V. Support from Administrative Bodies

1. How did you evaluate support of the administrative bodies in achieving community and stakeholders' participation on construction and maintenance of URRAP roads projects?
   A. High
   B. Medium
   C. Low
   D. Very Low
2. What types of support did they provide for your organization?
   A. Awareness Creation
   B. Community Mobilization
   C. Both
   D. Other
3. How did you evaluate the attention given by the administrative bodies to your organization in coordinating community and stakeholders' participation for the construction of URRAP roads projects?
   A. Very High
   B. High
   C. Medium
   D. Low
   E. Very Low

APPENDIX B: ORGANIZATIONAL STRUCTURE OF ORA