

**THE ROLE OF PARTICIPATORY COMMUNICATION IN THE  
AGRICULTURE SUPPORT PROGRAMME IN MPIKA DISTRICT**

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**DECLARATION**

I declare that this report has not been previously submitted for a Degree in this or any other University

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## **ABSTRACT**

This study was conducted at Agriculture Support Programme (ASP), Mpika, to determine the impact created by the use of participatory communication approaches among its target audience.

A total of 61 respondents participated in the study. The respondents consisted of one lecturer from Zambia College of Agriculture (ZCA), 26 Subject Matter Specialists (SMS) and Field staff, 26 farmers participating in the ASP activities, five Programme staff. Others who participated in the study were the District Agricultural Coordinator (DACO), Micro-Bankers Trust (MBT) and the Zambia National Farmers Union.

The research questions that guided the study included: what strategies had ASP put in place in facilitation of participatory communication in Mpika District among the rural farmers; what was the impact of the ASP programmes on the targeted beneficiaries. Furthermore, the research sought to gauge the sufficiency of these strategies. As a new approach, it also meant getting the level of understanding among field and district based staff on participatory communication; and capacity of the curriculum at ZCA in the teaching of participatory communication.

The study revealed that there was great appreciation and understanding of ASP approaches among all the respondents. However, the greatest challenge was the assumption that the approaches were an alternative to the conversational extension approaches. This posed as a challenge on the sustainability of the activities. In addition, as long as knowledge of participatory approaches was only at field level and not at training levels also, then continuity would be lacking.

Following the findings of the research, it is recommended that mechanism be put in place to ensure continued funding and follow-ups of field activities through provision of reliable transport. Further, there is need for MACO to document experiences with the use of participatory approaches and share these with policy unit at the Ministry and training institutions as a way of providing feedback.

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## **DEDICATION**

I dedicate this report to my loving wife Eneless, my wonderful children Constance, Choolwe, Conrad and Anna. Without their understanding, support, and most of all love, the completion of this work would not have been possible.

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## ACRONYMS

ADC	Area Development Committee
APEID	Asia-Pacific Programme of Educational Innovation for Development
ASP	Agriculture Support Programme
CC	Camp Committee
CEO	Camp Extension Officer
CIDA	Canadian International Development Agency
DAC	District Agriculture Committee
DACO	District Agriculture Coordinator
DAPP	Development Aid from People to People
DC	District Coordinator
FAO	Food and Agriculture Organization
FBC	Field Business Coordinator
FFS	Farmer Field School
FG	Farmer Group
FSP	Fertilizer Support Programme
FTL	Facilitation Team Leader
GDP	Gross Domestic Product
ICT	Information and Communication Technology
IG	Interest Group
ILO	International Labour organization
IPM	Integrated Pest management
KAP	Knowledge Attitude and Skills
MACO	Ministry of Agriculture and Cooperatives
MBT	Micro Bankers Trust
MCD	Ministry of Community Development
MCD	Masters of Communication for Development
MDGs	Millennium Development Goals
MILS	Monitoring Information and Learning Systems
MoH	Ministry of Health
NAP	National Agriculture Policy

NGOs	Non-Governmental Organizations
NLCCDP	North Luangwa Community Conservation Development Project
PM&E	Planning Monitoring and Evaluation
PRA	Participatory Rural Appraisal
PRSPs	Poverty Reduction Strategy Plans
R & D	Research and Development
RBM	Rural Based Management
SEC	Strategic Extension Campaign
SIDA	Swedish International Development Agency
SMS	Subject Matter Specialist
SPSS	Statistical Package for Social Sciences
UN	United Nations
UNICEF	United Nations International Children Emergency Fund
UNPFA	United Nations Population Fund Agency
USAID	United States Agency for International Development Agency
WV	World Vision
ZCA	Zambia College of Agriculture

## **CHAPTER 1**

### **1.0 INTRODUCTION AND BACKGROUND**

#### **1.1 ORGANISATION OF THE STUDY**

Zambia has seen many changes in the agricultural extension approaches since independence in 1964. During the last years, there has been a gradual shift from hierarchical, top down communication to a two way process that is interactive and participatory. This change in perception about the communication process coupled with the dramatic spread of democracy in recent times are working in favour of participatory decision-making at the local level, and of communication as part of the process. Although experiences differ in each approach, each of these approaches has provided good lessons, which are incorporated in subsequent Programmes.

The significance of this study lies in its effort to determine the role participatory communication plays in agricultural development among the rural farmers and the role these farmers could play in the process of rural change.

The study further seeks to identify major gaps that need to be filled. Further, the study is also an attempt to contribute in a modest way to the processes of participatory communication among the small-scale farmers in Zambia in general and Mpika in particular.

The study is divided into six chapters. Chapter 1 provides the background of the study. This includes brief introduction and background of Agriculture Support Programme (ASP) with its objectives and vision, overview of Zambia with the agro-ecological regions. The other areas covered in the chapter are the role of agriculture in Zambia's economy and the various farming systems and extension approaches that have been used in the agricultural development in Zambia. The Mpika district profile, problem statement, objectives of the study are also discussed in this section

Chapter 2 presents the methodology of the study with a focus on the study area, the research methods employed in the study, research questions, research sample and sampling procedures. The other areas covered are data collection and analysis.

Chapter 3 reviews the most recent literature on participatory communication in the World in order to lay the basis for the central issues in this study.

The conceptual framework which discusses theories that are relevant to the study and provide working definition are discussed in chapter Four.

The findings and discussions of the study are discussed in chapter 5. Chapter 6 presents recommendations and concludes the study.

## **1.2 BRIEF INTRODUCTION AND BACKGROUND OF ASP**

The Agriculture Support Programme is a commercialization Programme for Small- Scale Farming households under the auspices of the Ministry of Agriculture and Cooperatives (MACO) promoting 'Farming as a Business'. The Programme is funded by the Swedish International Development Agency (SIDA) and managed by a consortium of consultancy companies including Rural Economic Expansion Services Ltd, Diboll Associates Ltd, HJP International Ltd; and Ramboll Natura AB, with Ramboll Natura AB as the lead consultant.

Agriculture Support Programme has been in operation since 2003. The programme was set up to provide a continuation in support and to take full cognizance of the lessons both positive and negative learned during implementation of previous projects.

ASP is a five year Programme implemented in two Phases. The first Phase targeted 20,000 households between the years 2003 to 2005 and the Second Phase targets 24,000 households over the period 2005 to 2007. In total, ASP is targeting 44,000 small-scale farming households in four of Zambia's rural provinces namely Central, Southern, Eastern and Northern.

ASP has six components, namely; (i) Entrepreneurship and business development; (ii) Land, crop and livestock husbandry; (iii) infrastructure fund; (iv) Seed production and promotion; (v) Capacity building of support structures and local organizations, and; (vi) ASP Management Information and Learning System (MILS)

The operation of ASP is divided into eight (8) districts each under a Facilitation Team Leader and assisted by District Coordinators. Team Seven (7) has two districts namely Mpika and Isoka.

In Mpika district, the Programme is operating in 15 camps (Fig 1) and is working with 2500 farmers. The fifteen camps are Mpika Main, Mufubushi, Chintu, and Chobela Katibunga. The other camps are Lukulu, Kalonje, Salamo, Chibaye, Chalabesa, Chikakala, and Kawama. The other camps are Mpepo, Luchembe, and Kabulamwiko.

Phase I of its operation with the farmers ended in 2005 and in this Phase, the Programme was working with 1000 coded households. In the second and last Phase, the Programme is working with 1500 coded households.



### 1.2.1 ASP OBJECTIVES

In line with the National objective of poverty reduction and economic growth, and the vision of the Agriculture sector, which is **“to promote development of an efficient, competitive and sustainable agricultural sector, which assures food security and increased income”**, the Agriculture Support Programme (ASP)’s overall objectives are to contribute to poverty reduction among the small-scale farmers through increased food security and income resulting from sale of agricultural and other related products and services.

### 1.2.2 ASP–PROGRAMME VISION

The vision for the Agriculture Support Programme focuses on contributing significantly to the eradication of food insecurity by initiating a sustainable economic development process among the Small-scale farmers. The Programme hopes that a flourishing private sector, committed local institutions and an efficient number of successful farmers and rural entrepreneurs to drive sustainable wealth creation in the area could support this.

This process would be reflected in intensified economic activities and increasing awareness of economic opportunities among small-scale farmers, farmers associations, local entrepreneurs and associations in business, trade and construction as well as institutions operating regionally and nationally through the promotion of “Farming as a Business concept”. The Programme expects to achieve this through a process of facilitation, training, infrastructure improvements, capacity building among support entities/ service providers and linkages to relevant service providers.

The Programme also envisages that enhanced awareness of cross cutting issues of both a social and economic nature would have been established through Programme activities, which include:

- HIV/AIDS and appropriate coping strategies
- The benefits of a more equitable balance of resources and decision making between the sexes
- Improved security of land tenure, and

- The necessity for protecting the Zambian and global environment for future generations

### **1.3 OVERVIEW OF ZAMBIA**

Zambia is a landlocked country, covering an area of 752, 602 square kilometers and lying mainly on a plateau ranging from 900 to 1,500 meters above sea level. It has international borders with eight countries: Tanzania and Democratic Republic of Congo to the North; Malawi in the East; Angola and Namibia in the West; with Zimbabwe and Botswana to the south ([http://www.geographyiq.com/countries/za/Zambia\\_geography.htm](http://www.geographyiq.com/countries/za/Zambia_geography.htm)).

The population of Zambia is estimated to be about 12.1 million people (CSO, 2002) and the annual growth rate over the last two decades has averaged about 3.2 percent. Administratively, Zambia is divided into 9 provinces with 72 districts. About 60% of the population is concentrated in four provinces (Southern, Central, Lusaka, and Copper belt) along what is called "the Line-of rail". The country's urban population accounts for about 50% of the total, but urbanization is considerably higher in these four provinces.

Zambia lies between 8 and 18 degrees latitude South and 22 and 34 degrees longitude east. The country has a sub-tropical climate somewhat moderated by the high altitude of the land. There are three distinct seasons; the warm-wet season stretching from November through April. The second season is a cool dry winter season from May to August with the mean temperature varying between 15 degrees Celsius (59 F)' and 27 degrees Celsius (80F); and finally a hot dry season during September and October, and 27 degrees Celsius and to 32 degrees Celsius (80 to 90F).

The annual rainfall varies from over 1270mm in the North to about 760 mm in the center and less than 760 mm in the South of the country. Zambia's vegetation may be very broadly classified as woodland Savannah, which is a mixture of various trees, tall grass, herbs and other woodlands, which are mainly of the deciduous type to be found on the main plateau. However, these also occur in other areas such as the major maize farming

areas of the Southern and Lusaka Provinces. Forests occur mainly in the North- West amid Western parts of the country. These areas are major sources of timber in Zambia.

Thick forests are also found in the Northern parts of the country. Grasslands occur mainly in the seasonal flood plains in the Western Province, the Kafue flats and Bangweulu Swamps.

Zambia relies on copper and other minerals for over 90% of its foreign exchange earnings. However, the agricultural sector has continued to grow and contribute about 16% to the Gross Domestic Product annually. Zambia's agriculture is predominantly rain-fed and rainfall is one of the major determinants of the sector performance in any given year.

Zambia has potential to expand agricultural production given the vast resource endowment in terms of land, labour and water that the country possesses. Of Zambia's total land area of 75 million hectares (752,000 square Km), 58% (42 million hectares) is classified as medium to high potential for agricultural production, with rainfall ranging between 800mm to 1400mm annually and suitable for the production of a broad range of crops, fish, and livestock. It is estimated that only 14% of total agricultural land is currently being utilized (Zambia National Agriculture Policy: 2004-2015).

Zambia has the best surface and underground water resources in Africa, with many rivers, lakes, and dams. This, with the addition of high potential underground water aquifers in many areas, offers excellent prospects for irrigation programmes. However, these water bodies are largely unexploited. Of the country's irrigation potential conservatively estimated at 423,000 hectares, only about 50,000 hectares are currently irrigated. Therefore, Zambia has a resource endowment for development of a wide range of crops, livestock, and fish given the diversity of its agro-ecological zones.

#### **1.4 ZAMBIA'S AGRO-ECOLOGICAL REGIONS**

The country is divided into three major agro-ecological regions, namely Regions I, II and III. Rainfall as well as the quality of soils differs across these regions.

### **Region I**

This region receives less than 800mm of rainfall annually and constitutes 12% of Zambia's total land area. It consists of loamy to clayey soils on the valley floor and course to fine loamy shallow soils on the escarpment. It covers the Southern province and parts of Eastern and Western provinces and these areas lie between 300 and 900 meters above sea level.

The Region is suitable for production of drought resistant crops like Cotton, Sesame, Sorghum and Millet and has potential for production of irrigated crops, like Winter Maize. This Region is also suitable for extensive cattle production and has limited potential for Cassava cultivation. The valley part of the region is on a low altitude and is consequently hot and humid: these areas are not suitable for cattle rearing because of Tsetse Flies.

### **Region II**

The Region receives between 800 to 1000mm of annual rainfall and constitutes 42% of the country. It is sub divided into two namely, Region IIa and IIb. Region IIa covers the Central, Lusaka, Southern and Eastern fertile plateaux of the country and generally contain inherent fertile soils. Permanent settled systems of agriculture are practiced. A variety of crops are grown in this Region and these include Maize, Cotton, Tobacco, Sunflower, Soya beans, irrigated Wheat, Groundnuts and other arable crops. The area is also highly suitable for flowers, Paprika and vegetable production. Region IIb covers Western province and consists of sandy soils. It is suitable for production of Cashew nut, Rice, Cassava and Millet, including vegetable and timber production. The Region is also highly suitable for Beef, Dairy and Poultry production.

### **Region III**

The region receives more than 1000mm up to 1500mm of rainfall annually and constitutes 46% of the country's total land area comprising the Copperbelt, Luapula, Northern and Northwestern provinces. With the exception of the Copperbelt, the Zone is characterised by highly leached, acidic soils. It has good potential for the production of Millet, Cassava, Sorghum, Beans and Groundnuts. Coffee, Sugarcane, Rice and

Pineapples are also grown in this area. The agricultural potential of the region can be enhanced by application of lime and its perennial streams can be utilized for small-scale irrigation. Increased exploitation of the fisheries resources and introduction of fish farming offer good opportunities for development.

Approximately 700,000 farmers in Zambia can be grouped into three main categories. About 75 percent are smallholders with an average farm size of 2 hectares. An estimated 17 percent are emerging commercial farmers with farms between 10-20 hectares in size. The balances of 8 percent are large commercial farmers with farm sizes exceeding 60 hectares. These commercial farmers are located along the line of rail or near major urban centres.

### **1.5 ROLE OF AGRICULTURE IN ZAMBIA'S ECONOMY**

The economy of Zambia is dependent on mining but agriculture plays an important role in the development of the economy too. According to ILO, about 75 percent of the total population live in rural areas is engaged in a wide range of agricultural activities. The agriculture sector plays a very important role in the economy of the country accounting for 18-20 percent of total GDP.

The agriculture sector comprises crops, forests, fisheries and livestock. Of the agricultural GDP, the crop sub-sector contributes 71 per cent, forest 10 per cent, fisheries 10 percent and livestock 9 per cent. The sector generates 63.2 percent of total national employment, of which crop sectors share is nearly 55 %. Agricultural exports of primary products constituted 10.4% of total exports of the country in 1997-98. In the past decade, the agriculture sector contributed about three percent per annum to the annual economic growth rate.

The agriculture sector is the single largest contributor to income and employment generation and a vital element in the country's challenge to achieve self-sufficiency in food production reduce rural poverty and foster sustainable economic development. The Government has therefore accorded highest priority to this sector to enable the country to meet these challenges and to make this sector commercially profitable.

A later ILO study highlighted differences in the levels of development between different rural areas with Central, Southern and part of Eastern Provinces being the more developed in terms of resources and facilities. Less developed areas were identified as being Western, North Western, Luapula Provinces, Ndola Rural District and other parts of Eastern Province.

## **1.6 MAIN FARMING SYSTEMS IN ZAMBIA**

There are four main farming systems in Zambia, and each one of them has a particular crop production system. These systems are -

### **I) Plateau Farming System**

This is the most productive farming system in the country. The area has a high concentration of commercial farmers and is well located along the line of rail with readily accessible markets. The system is mainly found in Northern, Luapula, Central, Western, Copperbelt, Eastern, Northwestern, Lusaka and Southern Provinces.

In Western Province, this farming system is mainly on the uplands of the Western Province, mainly in Kaoma district.

Agriculture here is largely dependent on rainfall and crops mainly grown include Maize, Cassava, Sorghum, and Millet. Cash crops grown include Cotton and sunflower. There is very little or no fishing in this system, as such people largely depend on agricultural production. Livestock production is very dominant.

In Southern province, the system stretches across the southern part of the country. Agricultural production is crop based. Livestock production is also predominant. Most farmers in the province are small- scale and medium who largely depend on rain for their agricultural production. Crops mainly grown include maize, sunflower, groundnuts, and cotton. Most commercial farmers in this farming system grow tobacco and coffee.

The plateau farming system is also characterised by a shifting cultivation system commonly known as the Chitemene system, and is prevalent in Luapula and Northern

Province. The Chitemene cropping system is reported to reflect differences in more land and forest resource available. In this system, one can observe the large-scale millet based Chitemene of the Northern Province plateau. Differences also exist in consumption preferences (finger millet is used primarily for nshima). The main crops grown include Cassava, and millet.

## **II) Lake Farming System**

This farming system falls within the fishing/farming dominated systems of Southern, Luapula, and Northern Provinces.

These inhabitants depend on fish from the fishermen, while crop farming is on a small-scale level and for household food security. Livestock production is on the increase in both the Southern and the Northern parts of this farming system.

This is because of the current livestock development activities going on in these provinces.

## **III) Valley Farming System**

The population in this farming system is found in Luapula, Southern as well as Western Provinces. In Luapula province particularly, the population has been increasing due to the proximity to the trading areas of the Democratic Republic of Congo. This concentration and increase of population coupled with poor management of resources (forests, soils) renders large parts of the sub-system within the province to be vulnerable to food insecurity. In addition, the population increases and concentration has caused the enormous fertile land shortages around the settlement.

Cassava production is now becoming dominant as farmers are now shifting from maize production. Groundnut production is also on the increase due to the local and external (Mansa and DRC) markets. Finger millet is reported to be on the decrease due to several factors, notable amongst these being the shift in emphasis over the last few years to maize growing; however, there are indications that this trend is being reversed. Second, there is poor performance of finger millet when grown on permanent fields. Sweet potatoes

production is reported to be on the increase due to the available local and external markets. Forest resources are on the decline. Fisheries resources are almost depleted. Wildlife is almost non-existent.

In the Southern Province, this farming system largely covers the valley areas of the lower Zambezi. There is very little agriculture here, as such, food deficits are chronic and the inhabitants are always vulnerable to food insecurity. Crops produced include sorghum, millet, sunflower and cotton. Fishing is also quite predominant in this farming system. There is a good number of livestock in the area, which have been used to support the livelihood system in these areas.

#### **IV) Lowland/River Basin Farming System**

This farming system is mainly found in the Western province. It is the main food system in the Western Province.

Three-quarters of the inhabitants of the province heavily rely on this system. It is a combination of winter agriculture as well as fishing. It is the most productive system in the province. Due to the high fertile soils, agricultural output is normally high. Crop production is mainly done during the winter such that by the on-set of the rainy season, the crops are ready for harvest.

This has enabled the people in these areas to be less vulnerable to food insecurity for most of the year. However, floods have also heavily hit this system during years of heavy rainfall. Because of this peculiar nature, people have argued that this system is highly risk prone.

Fishing is also very dominant, and is a source of income for the inhabitants. Crops grown include maize, cassava, millet and sorghum. Livestock production is also predominant in this system.

### **Chitemene system**

Farmers in the Northern Province have therefore been using the Chitemene system to grow traditional crops such as finger millet, cassava and beans. Chitemene is a type of slash and burn shifting cultivation, where lopped tree branches are piled and then burnt to produce wood ash. Under this system, soil fertility declines by 80% in three years. Fields are then rested for at least 14 years.

At population densities of higher than four persons per square km, severe deforestation occurs as has taken place at Mpika (Chidumayo,1989 [http://www.pelum-zambia.net/activities/information/millet\\_chitemene.htm](http://www.pelum-zambia.net/activities/information/millet_chitemene.htm)). Consequently, most good land now is in the National Park where Chitemene is prohibited by the park authorities. The continual need for new fields has led to farmers encroaching on National Park areas, a practice that has resulted in conflicts with park authorities. Farmers knew that their actions were detrimental to the environment, but felt they did not have a choice since they could not afford inorganic fertilizers to increase crop yields.

### **Export Potential**

Agriculture has tremendous potential on the export market and over the years, the sector has shown a steady growth rate of about 3-5 percent per annum. The major market is the Southern African Development Community, which has a total population of about 400 million inhabitants.

The other sector that Zambia boasts is tourism, which offers many attractions from the Victoria Falls and wild life to parks and the fascinating cultures of its 73 ethnic groups. However, these ethnic groups have also had an influence on development due to a number of reasons. The country been divided in these tribal groupings means the focus of the leaders in the areas are also different and hence some areas appear to be more developed than others as a result of the policies in the area.

## **1.7 LAND TENURE SYSTEM**

Zambia has a historical heritage of land uses and systems. With a total land area of 752,000km<sup>2</sup>, several issues affect land resources management. Some of these are land tenure, ecological zones and land use.

Most of Zambia's land falls under the category of customary land tenure system. This is a traditional system of land management and administration. The underlying principle of this system is that the community holds land use in common ownership in perpetuity. Land is transferable following family/community traits. The other category of land is that held under leasehold tenure system. Under this category, title to land is given to the applicant for a period not exceeding 99 years after which the lease has to apply for renewal of the title (<http://www.zamlii.ac.zm/acts/1995/land95.htm>).

The current land Act recognizes traditional land as eligible for state registration and thus people owning land under customary tenure can convert it to leasehold title. This in effect converts customary land to leasehold land.

In Zambia, land resource use systems have largely been influenced by the physical and climatic characteristics of the three major agro-ecological zones. These agro-ecological regions are based on annual rainfall.

## **1.8 EXTENSION SYSTEMS IN ZAMBIA**

Extensions approaches differ from country to country, and sometimes even within countries. On the one hand, extension can be viewed broadly, as a multipurpose, educational and technical advisory service designed to bring about broad-based agricultural and rural development. On the other hand, agricultural extension could be narrowly viewed as a technology transfer mechanism, sometimes dealing with only one commodity that is also involved in input supply, credit and marketing services.

The particular approach to extension followed in any area is greatly influenced by organizational factors. More than 90% of all extension work in Zambia is carried out through a Ministry or department of Agriculture at the national, state or provincial level.

These public extension systems tend to be multipurpose, governmental organizations, responsible for a broad range of extension and other governmental activities. Government policy toward extension generally mandates the specific type of programmes and approaches pursued in each country.

Several Extension approaches in Zambia have been used with influence from external agencies, and are sometimes dominated by government policies that favour urban consumers instead of assisting farm households to improve their productivity and standard of living.

In the late 1950s and 1960s, the United States Agency for International Development (USAID) was a major external supporter of extension, pursuing a broad-based educational approach, patterned in part after the land-grant university system of the United States of America. In retrospect, these systems were developed at a time when improved technology was not widely available in most developing countries (FAO, 1990).

In addition, these systems were established within ministries of agriculture, rather than being attached to agricultural universities, which were weak or non-existent in many countries. This structural arrangement resulted in weak linkages with research; the consequence was that many of the newly emerging extension systems had little impact on agricultural productivity and development.

During the 1970s, most international donors supported integrated approaches to agricultural extension and rural development. The approach was built on the premise that farmers needed an integrated package of services - including extension, input supply, credit and marketing services - to increase their productivity. This approach also had limited impact. These systems were difficult to administer because of poor communications and inadequate managerial capacity at field level. Credit and input supply were used largely for marginal technologies and productivity gains were frequently insufficient to cover input costs. Consequently, many of these systems were

not self-sustaining because of high overhead costs, system inefficiencies and low levels of loan repayment by farmers.

FAO further notes that the agricultural extension in the 1980s and 1990s was dominated by the Training and Visit (T&V) approach to extension promoted by the World Bank. T&V was an effort to reform the general agricultural extension organizations by improving system management and narrowing the focus of extension, mostly to technology transfer.

The assumption was that new, improved technology was now available for most food crops, due in part to the work of the International Agricultural Research Centres (IARCs) working in cooperation with national agricultural research programmes. Initial results of T&V extension in irrigated areas were quite encouraging, particularly where the high-yielding varieties of the Green Revolution varieties and accompanying inputs were available.

However, when T&V was expanded into rain-fed areas, where technical potential was more limited and farmer risk higher, it faltered due to limited impact on productivity. In addition, T&V was criticized as being rigid, too top-down in orientation, costly to operate because of high recurrent personnel costs, and too heavily focused on technology transfer at the expense of human resource development (FAO,1990).

## **1.9 MPIKA DISTRICT PROFILE**

Mpika lies in the southern part of the Northern Province, with a total surface area of 41,000 km<sup>2</sup>. According to the 2000 Census of Population and Housing, Mpika district has a population of about 145, 304 inhabitants of whom 72, 251 are males while 73 064 females.

Mpika district is endowed with plenty natural resources and a favourable climate for agriculture. Fishing is a major activity though processing plants are non-existent. Farming is also an important activity, but access to markets is hampered by a poor road

network and transport system. The Agricultural potential in the district is quite high but largely un-exploited. Most inhabitants engage in subsistence farming through the Chitemene shifting method of cultivation more so in recent years due to failure by the farmers to procure farming inputs.

Rainfall in this area is high but the soils are very acidic and lack fertility. However, the acidity problem could be controlled chemically using high cost inputs such as lime and potash fertilizers, but the majority of small-scale farmers are unable to afford these. Even for those able to pay, poor infrastructure and its remote situation make the area commercially unattractive to input suppliers.

### **1.10 STATEMENT OF THE PROBLEM**

Agricultural development is a dynamic development process. It implies a shift from traditional methods of production to new, science-based methods of production that include new technological components and even new farming systems. For farmers to adopt these new production technologies successfully, they must first learn about them and then learn how to use them correctly in their farming systems.

Thus agricultural extension approaches could have both positive and negative consequences sometimes simultaneously depending upon the goals pursued, the clients served and how success is measured.

Public sector Extension has been, and still is, under attack from a wide spectrum of politicians and economists over its cost and financing. Public sector Extension has been criticised for not doing enough, not doing it well, and for not being relevant.

Extension has also been criticized because it has been ineffective in persuading farmers to adopt a particular recommendation, when, in fact, the technology being promoted may not have been appropriate or was poorly suited to the farmers' conditions. Finally, extension has been ineffective in certain situations because of inadequate resources,

poorly trained field staff, mobility problems, limited teaching resources or the field staff having too many non-extension responsibilities causing role conflicts.

The Agriculture Support Programme has advanced a powerful new set of facilitation initiatives designed to revitalize the relevance of the system. However, the biggest challenge is how sufficient these participatory communication strategies are. The second issue is how the approaches could be incorporated in the curriculum at agriculture training centres to ensure these new changes in approaches are not only at programme level but also at training institution levels. Lastly, the challenge is how these strategies that are used by the programme could be made more sustainable at the end of the programme.

### **1.11 RATIONALE OF THE STUDY**

The significance of this study lies in its effort to determine the role participatory communication plays in agricultural development among the rural farmers and the role these farmers could play in the process of rural change.

It is hoped that information obtained from this study would be useful to policy makers of agriculture development at Ministry of Agriculture and Cooperatives, Zambia College of Agriculture, Non-governmental organizations dealing in Agriculture, Lecturers and students involved in agriculture development. It is also assumed that the study has contributed literature on participatory communication in agriculture development. Furthermore, the research is expected to help fill critical gaps between extension and agriculture development in Zambia.

### **1.12 PURPOSE AND OBJECTIVES OF THE STUDY**

The purpose of the study was to identify the role of participatory communication approaches used by the Agriculture Support Programme in facilitating 'Farming as a business' and how these strategies have impacted on the rural agriculture development in Mpika district.

The specific objectives of the study were:

- To review communication strategies employed by the Agriculture Support Programme (ASP) in facilitating agricultural development interventions in Mpika district;
- To find out the impact ASP programmes have on the targeted beneficiaries and how the existing communication development strategies have assisted in achieving the desired impact;
- To determine Agricultural Support Programme communication structures and how they have impacted in enhancing participatory communication;
- To ascertain the sufficiency of the participatory strategies used in facilitating social change among rural farmers;
- To gauge the level of understanding and appreciation of participatory communication by the field and district based staff;
- To assess the capacity of the curriculum at ZCA Mpika on the teaching of participatory communication;
- To identify the gaps in the process if any and make recommendations on how the strategies would help achieve significant impact.

## **CHAPTER 2**

### **2.0 METHODOLOGY**

#### **2.1 INTRODUCTION**

This chapter discusses the research methodology that the researcher engaged while collecting data on the role of participatory communication in agricultural development and the perception/views of the agricultural facilitators towards the adoption of participatory communication in extension work in Mpika district

The chapter is divided into six sub-sections namely study area, research methods, research questions, research sample and sampling procedure. The other parts discussed are data collection instruments and finally data analysis.

#### **2.2 STUDY AREA**

The study was conducted at the Agriculture Support Programme, Mpika. As already stated earlier, Team 7 of the Agriculture Support Programme is divided into two districts namely Mpika and Isoka. Mpika district was chosen for the study because of its accessibility to the researcher.

Secondly, ASP Mpika plays an important role in social change among the small-scale farmers through the processes that they are using. The district has also great potential for agricultural activities, and has great experiences in implementing other agricultural programmes such as Economic Expansion in Outlying Areas. It is assumed that the findings could be of great relevance to other districts under Agriculture Support Programme and even for the Ministry of Agriculture and Cooperatives.

#### **2.3 RESEARCH METHODS**

The study employed systematic and purposive sampling designs. Qualitative methods were used in order to help capture the best perception, views and feelings from the respondents. This design was also chosen because it allowed the researcher collect information from the respondents and be able to triangulate the results. At the same time,

these methods generated statistical data, which is often associated with quantitative surveys.

The study employed two methods of data collection, namely questionnaires and interviews. Questionnaires were used to collect information from the staff, farmers and Zambia College of Agriculture. The questionnaires consisted of both open ended and closed ended questions.

The open-ended questions had items that allowed greater freedom of response. Whereas with closed questions, the respondents were forced to choose from one of the alternatives provided. Responses from closed questions were more easily analysed because data was essentially categorized. The reasons for use of structured questions were that the respondents were literate.

The researcher also used interviews to collect data from key informants. The researcher interviewed respondents in their offices. An interview guide with open-ended questions was used in the interviews. All the interviews took place between January and April 2007.

The interviews added a dimension to the gathering of survey data that was not provided by the questionnaires. The interview guide had the advantage of becoming an extension of the schedule of questions. Clarifications, restatement and explanations were all available for use in eliciting responses from participants. Interview technique also permitted a greater depth in the subject under study.

Interviews were used to collect data about the Agriculture Support Programme from programme managers at district level, the stakeholders namely the Zambia National Farmers Union, Micro Bankers Trust and the District Agriculture Coordinator.

## **2.4 RESEARCH QUESTIONS**

The following questions were used for the study:

- What strategies has ASP put in place in facilitation of participatory communication in Mpika district among the rural farmers
- What is the impact of the ASP programmes on the targeted beneficiaries and how have the existing communication strategies assisted in achieving the desired impact
- What structures, tactics is ASP using and how have these enhanced participatory communication
- How sufficient are the social marketing strategies that the Programme is using in facilitating social change
- What is the level of understanding of the field and district staff on the participatory communication
- What is the capacity of the curriculum at ZCA Mpika in teaching participatory communication
- Are there gaps in the process and what strategies could be used to achieve any significant impact

## **2.5 RESEARCH SAMPLE / SOURCE OF INFORMATION**

In order to enable the researcher to gain relevant information about the role of Participatory Communication in the Agriculture Support Programme, Mpika, the researcher collected information from the Zambia National Farmers Union, Micro Bankers Trust, District Agriculture Coordinator, government officers (Subject Matter Specialists), members of the management and staff of ASP, Camp Extension officers/facilitators and farmers.

Mpika district has 33 agricultural camps divided into 6 agricultural blocks. However, the Agriculture Support Programme is operating in 15 of these camps. The whole population of 15 Camp Extension Officers/ facilitators, Zambia College of Agriculture, 15 subject matter specialists, 5 stakeholders / collaborators, 5 Programme Management staff and 15 farmers were originally targeted for the study.

Agriculture extension workers in Mpika were targeted for the study because they work with the farmers in the study area. The researcher also drew a purposive sample from small-scale farming households in Mpika district.

The sample of 30 farmers was selected purposively by considering education levels, farmers owning cattle, distance to the market, production capacity of farmers and crops grown. The sample was increased to 30 in order to enlist more responses from the farmers about the impact of the programme on their lives. The farm household survey covered three camps namely Mpika Main, Mufubushi and Chikwanda areas. The camps were selected purposively. In each camp, 10 coded households were interviewed.

The sample from the farmers was selected randomly using a systematic random sampling technique. The procedure involved listing all the Phase II households and then selecting at equal intervals starting with a randomly selected element on the population list.

The sampling interval or the “K” was obtained by dividing the total number of respondents in the universe by the size of the sample as shown in the formula below.

$$K = \frac{N}{n}$$

Where K = Sampling interval  
N = Population  
n = Sample size

Since there are 100 farmers in Phase II in each camp and we wanted a sample of 10 farmers from each camp,

$$K = \frac{100}{10} = 10$$

The starting point was randomly selected and fell between 1 and K<sup>th</sup> i.e. 1-10 and each subsequent number in the sample was got by adding the K<sup>th</sup>.

Systematic random sampling was used as it ensured that the sample was spread over and each number had the probability of being selected. This technique was selected, as it was simple and took little time to select the sample.

The second sources of data were from publications that had relevance to the subject at hand. In addition to these two sources of data collection, direct observations during the study were also used to evaluate the infrastructure set up and communication approaches used.

## **2.6 DATA COLLECTION INSTRUMENTS**

The data was collected between January and April 2007, using data reviews, farmer/key informant's interviews and discussions, staff interviews and observations and use of questionnaires. The interviews were conducted at household level, camp and office for the staff and key informants respectively. The questionnaires were administered to the farmers, district staff and the lecturer in communication skills at the Zambia College of Agriculture in Mpika. The sources of data were triangulated in order to ensure reliability of the data collected.

The researcher to gather information on organization, motivation, capacity and performance used open-ended questionnaires. The questionnaires comprised major sections focusing on demographic data and other areas.

The questionnaires were deliberately left open-ended so that respondents had the opportunity to convey their independent conception of the issue in question. This was important because the purpose of the study was to among other things to find out the impact ASP programmes had on the targeted beneficiaries and how the existing communication development strategies had assisted in achieving the desired impact. The research also sought to review the curriculum at the ZCA of Agriculture on how the curriculum was organized in communication skills.

Additionally, there was the advantage that through open responses, common conceptions and misconceptions might emerge thereby creating a working language or vocabulary for more closed questions in subsequent large-scale studies.

In order to ensure face and content validity, the questionnaires and interview guide were pre-tested with experts to ensure appropriateness of the instruments to the target population. To ensure reliability, the instruments were also pilot tested using MCD students and some respondents.

## **2.7 DATA ANALYSIS**

When data was collected, a formula was devised to ensure that the researcher determined the extent to which the respondents understood the issue at hand examined each open-ended response critically. Did the respondent reflect better understanding, or no understanding? To make huge stocks of data manageable, the responses were coded in terms of whether the respondent had:

- (1) Better understanding
- (2) Little understanding or
- (3) No understanding

While the responses from the interview guide presented did not reflect verbatim what the respondents said or wrote. However, they were a result of a careful content analysis that grouped similar responses together, under one common element for the purpose of analysis.

Quantitative data was analyzed using two main statistical procedures namely descriptive statistics and inferential statistics. Generally, this employed editing, classifying and tabulation of data. While qualitative data was organized according to themes to see whether specific indicators were met. These themes arose mainly from the sub-section of the interview guide.

Later the data was keyed into the computer and processed using the Statistical Package for Social Sciences (SPSS) according to sub-themes to produce frequencies, percentages, graphs, tables and charts. This was important as it helped in analyzing the data and being able to make inferences to the population and drawing up recommendations and conclusion about the study.

## **2.8 LIMITATION OF THE STUDY**

Limitation included the following:

The scope of the study: done in 1 district and in 15 camps, it became clear that it would be impossible to have a wide enough sample.

A sample of 30 would not confidently allow the researcher to generalize over Small-scale farmers. Nonetheless, given the emerging consensus in the results of this study, the data collected and analyzed give credibility to the conclusion and recommendations made.

The research is limited in coverage due to financial incapability, limited human resource and the complexity of such a venture would render it unattainable. The other difficulties faced included lack of cooperation by some senior staff thereby making it difficult to capture information from them.

The study as could be seen in the earlier paragraph was limited to areas of Mpika. The reason was that the places were accessible by the researcher.

## **CHAPTER 3**

### **3.0 LITERATURE REVIEW**

#### **INTRODUCTION**

This section examines the nature and context of participatory communication processes in Africa, with a view to raising significant questions relating to human-resources development and its implications to the small-scale farmers. The chapter reviews relevant literature to the study.

#### **REVIEW OF RELEVANT AND RELATED LITERATURE**

According to FAO (1999a), developing countries particularly Asia and Africa, which together constitute almost three-quarters of the world's population and where nearly 70% live in the countryside, the idea of using communication for a variety of rural development projects, and agricultural improvement in particular, grew out of relatively consistent research findings. The research found that audience-oriented communication strategies could play a catalytic role in accelerating the rate of technology transfer through providing relevant information, changing negative attitudes, and skills training. "Small media" were mainly used (e.g., video, radio, flip charts, illustrated pamphlets, village theatre) appropriate to a given community, province or region.

Strategies ranged from multi-media campaigns to support for group meetings conducted by extension agents, and materials to strengthen interpersonal communication. Over time, participatory methods were refined to bring in the views of the intended beneficiaries from the start in designing project goals and selecting appropriate communication and adult learning approaches to support implementation.

FAO (ibid) observe that the need for knowledge and improved skills to increase food production was clear and present. Current statistics show that more than 65 low-income developing countries (90% in Asia and sub-Saharan Africa) suffer from inadequate food security, with about 790 million people living in hunger

FAO further indicates that the 1996 World Food Summit set a goal of reducing by half the number of hungry people in the developing world - about 400 million people - by the year 2015. The progress achieved during much of the 1990's though makes this goal appear to be a daunting task. In the 1990/92 period for example, out of a group of 96 developing countries, the number of undernourished was estimated at 830 million people; by 1995/97 this had dropped to 790 million or a decrease of 40 million overall, a seemingly positive result. A closer look at the data revealed, however, that only 37 countries, or 39% of the original 96, had actually reduced the number of undernourished by about 100 million people combined overall. Across the rest of almost two-thirds of the developing World, the aggregate number of undernourished actually increased by 60 million, resulting in a total net reduction of only 8 million per year for the five-year period.

These sobering results dramatically suggest that unless more solutions that are effective are found for increasing food production among the hungry and most vulnerable, and better distribution of it, the goal of the 1996 World Food Summit may never be realised. As Sen (1998) notes, "the contemporary age is not short of terrible and nasty happenings, but the persistence of extensive hunger in a World of unprecedented prosperity is surely the worst" (p. 204).

IDRC, 1999; Van der Stichele and Bie, 1998; Richardson, 1997; Woods, 1996, argue that appropriate use of ICTs for accelerating the dissemination of research-based recommendations, blending them with indigenous practices, and rendering them locally useable through small media adaptation, may well provide part of the solution toward reducing the chronic food deficits. Put more succinctly by FAO, the challenge in assisting farmers to produce more food implies the need for new technologies, new skills, changed attitudes and practices, and new ways to collaborate. Crowder (2000), state that this requires farmers having access to relevant information and knowledge.

During these three decades, the role of communication has undergone a 180-degree shift from a one-way, top-down transfer of messages by extension to farmers, to a social

process that starts with farmers and brings together both groups in a two-way sharing of information among communication equals, in short, participatory communication.

In recognizing that rural people are at the heart of development, participatory communication has become what many consider the key link between farmers, extension, and research for planning and implementing consensus-based development initiatives. Too often, however, it has been a missing link and many projects have failed as a result. Norrish (1998 p. viii) sums it up neatly when she notes "What comes through clearly from the literature and discussions with those working in rural communities is the overwhelming need to focus on people not technologies, on what people do with technology, and on training".

Along with communication, it is also now widely accepted that a parallel investment in "human capital" through education and training of adults is essential for project success (Fraser and Villet, 1994). Awareness raising, knowledge acquisition, attitude change, confidence building, participation in decision-making, and action, all require processes of education and communication. Rogers (1992) indicate that all these are essential for effective development; they are not just desirable options, some of which may be left out.

## **INFORMATION DISSEMINATION AND MOTIVATION**

Population Reference Bureau (1999) state that one-third of adults in the developing world particularly those in Africa (44%) are illiterate and that the broadcast media principally radio has performed a major service in informing rural people of new ideas, services and technologies for improving their quality of livesthis role. Not surprisingly, with the advent of the transistor receiver, and lowering of prices, radio, either battery operated or wound-up by hand, became the ubiquitous medium for rural communication, a status that it is likely to retain well into the 21st century.

While much of the emphasis in the 1970's was on supporting open broadcasting within a national or regional reach, a number of disadvantages were noted. Typically, it was carried out in isolation from direct involvement of farmers or extension in its programming, and was literally "open" in the sense that programmes were directed at

unorganized audiences. FAO (1981) argue that in the face of the criticism that by "attempting to reach everyone, it reaches no one", open broadcasting for educational purposes, including agricultural programming, has been given low priority, averaging less than 5% of total broadcasting hours . As a stand-alone medium, however, its main value was in reaching many people quickly with simple messages.

Mody (1992) notes that early attempts to improve the educational value of open broadcasting, as a "magic multiplier" to enhance extension included the creation of radio farm forums directed to organized farming groups built around the format "listen, discuss, act". A seasoned leader introduced each broadcast topic and initiated follow-up discussion, and action on its recommendations.

The idea of radio farm forum was originally developed in Canada during the 40's and subsequently adapted in a number of developing countries including Ghana, Zambia, Guatemala, Thailand and Senegal. A common problem experienced in most countries was the difficulty in maintaining active group attendance over an extended period since the farm forum was initiated when radio sets were expensive and access was limited. With the advent of cheap transistor sets, individual ownership became more common, lessening the appeal of regular attendance using a shared village radio. Radio farm forums mostly disappeared during 1980's, and were replaced by listening groups for specific themes (see for example Mhonda, 1996; Balit, 1999), and a move, largely following decentralization, to participatory community radio stations (FAO, 1996).

The continuing importance of radio as an information medium was soundly confirmed at the 1996 FAO international workshop on rural radio in Burkina Faso. Among its declarations was the confirmation that ... "Radio remains the most popular, accessible, and cost-effective means of communication for rural people. FAO (1996), notes that radio can overcome the barriers of distance, illiteracy and language diversity better than any other medium.

Communication theory has tended to support the case for multi-media use based on the premise that having access to at least two channels allows a production team to present and reinforce the same points in different ways and with varied emphasis.

Individuals also differ in their processing of information from different media; some learn better from and prefer visual media than audio and vice versa. World Bank (1983) demonstrate evidence from controlled classroom studies and suggest that providing a variety of reinforcing channels caters to both learning styles and learning preferences. However, practical evidence from the field to reinforce the experimental classroom findings especially in rural development is rare.

According to Freire (1972), the importance of popular participation in planning and executing projects was largely postulated during the 1970's. In a groundbreaking article on development communication, Rogers (1976) argues that the passing of the "dominant paradigm" of top-down planning would signal a shift toward self-development wherein villagers and urban poor would be the priority audiences, and self-reliance and building on local resources would be emphasized.

The role of communication in this process would be "1) providing technical information about development problems and possibilities, and about appropriate innovations in answer to local requests, and 2) circulating information about the self-development accomplishments of local groups so that other such groups may profit from others' experience" (p. 141)

Knowledge and information are essential for people to respond successfully to the opportunities and challenges of social, economic and technological changes, including those that help to improve agricultural productivity, food security and rural livelihoods. However, to be useful, knowledge and information must be effectively communicated to people.

World Bank defines Communication for development as a social process designed to seek a common understanding among all the participants of a development initiative and creating a basis for concerted action (<http://www.devcomm.org/worldbank/admin>).

## **IMPORTANCE OF PARTICIPATORY COMMUNICATION**

Hand in hand with the development of participatory theory and practice in communication has been a recognition of the importance of indigenous knowledge bases accumulated by farmers, and an examination of how new research recommendations might best fit into them. According to Benor & Cleaver (1989) and Ramirez & Stuart (1994, p. 4, the reversal of the un-directional passing on of research findings through extension to farmers advocated under the Training and Visit system implies that "farmers are the ones who must control the learning and be able to access information according to specific needs, times and means.

Previously, technologies were typically finalised in research institutions before farmers have to see them, essentially leaving them three choices: adoption, adaptation or rejection. Rogers (1992; 1996) indicated that when farmers make choices about technologies needed, and the knowledge and skills required to use them, there is "a critical reflection on experience", and the roles of research and extension are dramatically changed. Servaes and Arnst (1992, p. 18) argue that under the new paradigm, the "assertion of a knowledge gap, of a disparity between "experts" and local people is wrong - unless the "experts" through cooperation and learning from local people can apply their knowledge in the context and to the benefit of local "expertise".

The new role of the extension worker in the participatory learning process thus becomes one of facilitating problem definition and prioritizing technology solutions among farmers, through critical reflection of experiences, and then designing and using training packages for presentation back to them. This has prompted a rethinking of the training of extension workers to ensure that more control of the extension process, knowledge sharing, and technology transfer requests will be mainly derived through farmer inputs. As Rogers (1996) suggests, this is easier to achieve through in-service training where field staff can reflect on actual practice.

Along with the leveling of extension services to match farmer demands, the shift from teaching to learning with them through practical applications has assumed vital importance. Roling and Pretty (1997, p. 183) put the case succinctly. "It is important to recognize that local people are always involved in active learning, in (re)inventing technologies, in adapting their farming systems and livelihood strategies.

Understanding and supporting these processes of agricultural innovation and experimentation have become an important focus in facilitating more sustainable agriculture with its strong locality-specific nature". Gallagher (2000); FAO, 2000c) state that one of the more successful of these methodologies has been the Farmer Field School or FFS pioneered by FAO.

Farmer Field School's (FFS) were first established in Indonesia in 1989 as part of a FAO Integrated Pest Management (IPM) project. This discover-learning approach generates a deep understanding of ecological concepts and their practical application. A Farmer Field School is always held in the community where the farmers live, with the extension officer travelling to the site on the day when the school meets. The field used for study is usually small, and either provided by the community or some other arrangement so that farmers can carry out risk-free management decisions that they might not otherwise attempt on their own farms.

The effects of IPM methods taught in FFS's were compared with conventional practices. In one notable example drawn from Indonesia in 1993 (FAO 1993: 72), the inputs and outputs of 10 rice farmers who participated in an IPM field school during one wet season were compared with those of 10 rice farmers who had never been FFS trained. Overall, the IPM farmers achieved 21% more rice harvest yield on a per hectare basis (6.9 tons versus 5.7 tons), for 97% of production costs, when compared to their non-IPM farmer counterparts. The significantly lower "input" costs for IPM farmers were largely attributed to minimal usage of commercial pesticides. Labour costs were also slightly lower for IPM farmers, possibly because of better land management

Servaes and Arnst (1992, p 18) sums it when they state that, "If the goal of the development effort is to assist the poor, the endeavour should begin in their context, not in the planning office, not in the research station, and not from theories and constructs of far-removed institutions. ... The claim is not that rural farmers are the foremost experts in macro-level planning but they are often the most qualified to decide how, or if, a given project's planning and objectives applies at the local level. ... Participation is not a supplementary mechanism "diffused" to expedite external agendas, or a means to an end; it is a legitimate goal in itself"

Rockefeller Foundation, (2000, p. 2) also note that "Access to and control of information sources are essential for poor people to participate fully in decisions affecting their lives and communities.

As Crowder, quoted in Rasmussen (2000), sees it, when communication is included, it is treated as an "add-on" type of materials production component to assist project objectives that may be well off the mark. Quite simply stated, "communication with target groups in the planning stage gives a better project design and better chances of creating a successful project").

Associated with getting planning for participating communication and adult learning started early on in project formulation is the importance of incorporating indigenous knowledge and practice. According to Servaes & Arnst (1992, p. 18) the adage of "start with what people already know and build on what they have" subsumes the notion that "indigenous knowledge can provide a different understanding and analysis of a situation which was formulated in response to the environment and relevant cultural issues".

Further, "the location-specific nature of sustainable agriculture implies that extension must make use of farmers' knowledge and work together with farmers, (Roling and Pretty, 1997, p. 186). Finally, "experiences from around the world have shown that new "scientific technologies" whether agricultural or communication are not always the best

strategy to adopt. Protz, 1998, p. 2 argues, "Farmers' indigenous agricultural practices offer many answers and the best of both knowledge areas needs to be considered to meet local needs"

Fourthly, and although not a new theme, building human capacity takes time, usually much more than provided for in a typical five year project. Balit (1988) notes that the most successful of FAO's projects with a communication for development component have had a running time of seven to ten years. Benor and Cleaver (1989) go even further when suggesting that support to extension systems should be designed with a long-term perspective (15 years at least). As they sceptically conclude, "The continent of Africa is littered with five-year projects, abandoned on 'completion' by farmers" (Benor and Cleaver, 1998: 2).

Given the location-specific nature of the PRA/PRCA process, a "small is beautiful" focus of projects should be at the community level. While a number of communities may be included in a given project, individual attention should be stressed such that each would build on its own strengths and unique opportunities. As Rolling and Pretty (1997) conclude from their review of extension's role in sustainable agricultural development, "Most successes are still localized, they are simply islands of success" (p. 181). In addition, Anderson, Clement and Crowder, (1998); Ramirez, 1998) point out that it was much easier to encourage and facilitate what we might call the four pillars of collaborative development at the village level, namely, multi-stakeholder involvement or pluralism, transparent negotiations, representational participation, and accountability.

Planning for gender sensitivity in communication strategies and media content continues to be haphazardly applied, particularly with regard to rural women's concerns. As Balit (1999) points out, women farmers are responsible for half of the world's food production and in most developing countries produce from 60 to 80% of food destined for household food consumption. The "feminization of agriculture" means that rural women are key actors on the development agenda. PRCA applications should address social, economic, cultural, and time constraints faced by women in producing and preparing food and factor

these into the design of communication messages, appropriate channels to use, and best timing and locations for delivery.

The issue of the lack of evaluation continues to undermine the perception of the value of participatory communication and learning project components. Assessing and taking credit for outcomes and longer-term impact that rightly accrue from communication and learning activities, such as changes in awareness, knowledge, attitudes, skills and behaviour, should be applied more frequently. Repeatedly one reads that a true assessment of the value of communication and training was not possible due to the lack of pre-testing or a benchmark survey.

The issue of evaluation is taking on mounting importance since the day is rapidly approaching when donors will want hard evidence of the results of their project investments. Anecdotal, narrative descriptions of outcomes and impacts will no longer do. SIDA, CIDA, USAID and some UN Agencies, e.g., UNFPA, are already applying results-based Management or RBM (CIDA, 1999) which sets specific inputs, activities, outputs, outcomes and impact performance indicators. Assuredly other, if not most, development agencies will follow. Mainstreaming gender into RBM and factoring it into the evaluation grid of project indicators is another very positive step in this movement.

## **CHAPTER 4**

### **4.0 CONCEPTUAL AND THEORETICAL FRAMEWORK**

#### **4.1 INTRODUCTION**

The thesis proposes that development and use of participatory communication in agriculture cannot begin without first clarifying our understanding of key concepts and theories, and how these meanings compare and contrast with how others use and define them.

The most obvious concepts in the chapter are communication, participation, diffusion of innovation theory (Rogers, 1983) and the social marketing theory (Elkamel, 1986; Kotler & Roberto, 1989). A Combination of these four concepts yields additional concepts and accompanying controversies as well.

Definitions of development communication vary not only with definition of terms that comprise it, but are also complicated by assumptions about related areas of study and practice.

Drawing from the theories mentioned above, it is perceived that the process of development, adoption and success of participatory communication in agriculture would be best understood in terms of a dynamic conceptual framework. A conceptual framework explains visually the key factors and constructs and the presumed relationship among them (Miles & Huberman, 1994:18).

#### **4.2 PARTICIPATORY THEORIES AND APPROACHES**

According to Jacobson (1996), the notion of participation has been defined in many ways. He observed that within the Western tradition, the mostly widely held meaning derives from democratic political theory. This is the conceptualization associated with the modernization theory. He further stated that in the modernization theory, popular participation is often sacrificed for the sake of GNP growth. He noted that a widely accepted model of participation that is appropriate for conditions in developing countries

does not exist. It is for this reason that Jacobson argues that the source of participatory theory resides in other areas of communication research-in the subfields of interpersonal, small group, organisational and mass communication studies.

Due to the lack of theory and trends applicable to participation studies within the field of academic communication, the study adopts the theory of Freire on education and conscientization as it is associated with participatory social process.

Development communication was formed by a theory that “became a science of producing effective messages” (Hein in Quarmyne 1991). After decades of interventions, the failure to address poverty and other structural problems in the Third World needed to be explained on the faulty theoretical premises of the programs. Any intervention that was focused on improving messages to better reach individuals or only change behaviour was, by definition, unable to implement social change.

The lack of local participation was viewed as responsible for the failure of different programmes. In the case of agricultural programs, it was concluded that the issue at stake was not the transmission of information to increase output but rather the low prices of agricultural goods in the market or the absence of an equal distribution of land ownership. In explaining the failures of family planning programs, it was suggested that mothers were disinclined to follow instructions because fathers believed that having more children meant having more hands to work in the fields and carry out other tasks.

Participatory theories considered necessary a redefinition of development communication. One set of definitions stated that it meant the systematic utilization of communication channels and techniques to increase people's participation in development and to inform, motivate, and train rural populations mainly at the grassroots. For others, development communication needed to be human- rather than media-centred. This implied the abandonment of the persuasion bias that development communication had inherited from propaganda theories, and the adoption of a different understanding of communication.

### **4.3 COMMUNICATION DEFINED**

According to Jonsson (2003, p 48), communication is the means by which individuals within groups, organisations can ensure that they: 1. agree that there is a problem; 2. agree on the major causes of the problem; 3. agree to pull their resources together to address these causes; and finally 4. agree on the major lessons learned in the process; that is, how they could do better next time

Communication is the articulation of social relations among people. It is the act of people coming together to decide whom they are, what they want and how they will obtain what they want, they want. This, in a way, can be considered to be the ability of communication to bring positive change in the lives of people. In other words, this is all about human development.

This definition was adopted in this study as it focused on the importance of people's participation in planning and adoption of new technologies.

This understanding of communication was central to the ideas developed by Brazilian educator Paulo Freire (1970), whose writings and experiences became an influential strand in participatory communication.

Freire offered the concept of liberating education that conceived communication as dialogue and participation. The goal of communication should be conscientization, which Freire defined as free dialogue that prioritized cultural identity, trust and commitment. Communication should provide a sense of ownership to participants through sharing and reconstructing experiences. Education is not transmission of information from those "who have it" to those "who lack it," from the powerful to the powerless, but the creative discovery of the world.

Freire's model and participatory models in general proposed a human-centred approach that valued the importance of interpersonal channels of communication in decision-making processes at the community level and the researcher used this definition by Freire

as it was in line with the definition of participatory communication as the researcher agrees with it.

#### **4.4 THEORIES AND STRUCTURES OF PARTICIPATORY COMMUNICATION**

Several approaches to development communication have been proposed as alternatives to accompany new thinking. Masilela (1994) presents the current perspective of development communication as been towards participatory models, which have the capacity of empowering people to act on their own behalf and to catalyse renewal process at micro and macro levels of the social structure

Bradford & Gwynne 1995, Purdey, Adhikari, Robinson & Cox 1994 observed that community empowerment has become one of the main contributions of participatory theories to development communication. Empowerment is possible only if community members critically reflect on their experiences and understand the reasons for failure and success of interventions

Certainly, participatory communication has not lacked critics. Even though vindicating some tenets of participatory theories, other positions argued that they were elaborated at a theoretical level and did not provide specific guidelines for interventions.

One problem in participatory models was that it was not clear that communities needed to be involved for certain results to be achieved. In some cases such as epidemics and other public health crises, quick and top-down solutions could achieve positive results. Participation communication ignores that expediency may also positively contribute to development. Belabouring through grassroots decision-making process is slower than centralized decisions, and thus not advisable in cases that require prompt resolutions. Participation might be a good long-term strategy but has shortcomings when applied to short-term and urgent issues.

McKee (1992) argue that participation in all stages does not have similar relevance. It was not clear what participation entailed. If decisions were made outside of the

community, the latter was assigned the role of implementing, and evaluating results, some positions argued, participation was limited to instances that depended on decisions previously made. It was not true participation and, therefore, maintained power inequalities.

Another problem was that the focus on interpersonal relations underplayed the potential of the mass media in promoting development as participation and process. Little attention was paid to the uses of mass media in participatory settings, an issue that is particularly relevant considering that populations, even in remote areas, are constantly exposed to commercial media messages that stand in opposition to the goals set by programmes. This lack of appreciating the role of mass media is particularly evident in Freire's theory of dialogical communication that is based on group interactions and underplays the role of the mass media.

Participatory approaches usually avoided the issue that people who lived in non-democratic societies might be wary to participate out of fear of retaliation. Moreover, people can be manipulated into participating. This would violate local autonomy and the possibility that members might not be interested in taking an active role. Critics argued that participatory communication, like social marketing, could also be seen as foreign, pushing for certain goals and actions that have not resulted from inside communities. Participatory communication did not offer the chance not to participate, and implicitly coerced people to adopt a certain attitude.

Social marketers charged that participatory approaches were too idealistic, falling short from offering specific practical guidelines, and offering recommendations with limited impact. These shortcomings are particularly pronounced when funds for development communication are short and funding agencies are interested in obtaining cost-effective results not just at the local but also the national level.

Other critics, particularly in Asia, thought that participatory models were premised on Western-styled ideas of democracy and participation that do not fit political cultures

elsewhere. Individualism rather than community and conflict rather than consensus lie at the heart of participatory models developed in the West. Participation can also promote division, confusion, and disruption that do little to solve problems. It may privilege powerful and active members of the community at the expense of the community as a whole. Education and decision-making skills, rather than participation for its own sake, should be promoted.

To these criticisms, advocates of participatory models admitted that divisions and conflicts might result but, they argued, the answer should be teaching negotiation and mediation skills rather than opting for interventions that disempowered people in the name of consensus-building. However, White (1994) writes that although advocates of participatory theories viewed their critics as favouring government centralization and leaving power inequalities intact, they admitted that some original premises needed to be revised.

Recognising that communities are not necessarily harmonious and that participation may actually deepen divisions, Servaes (1996, 23) admits, "Participation does not always entail cooperation or consensus. It can often mean conflict and usually poses a threat to existent structures...Rigid and general strategies for participation are neither possible nor desirable."

According to McKee (1992), in order to prevent some of these problems, he suggested that projects be carried out in communities where agencies already had linkages. He further observed that previous knowledge of problems and characteristics of a given community was fundamental to identify activities and define projects. Existing linkages could also provide agents that were familiar with (or even were from) the community who could assist in creating organizations and networks to stimulate participation.

Against criticisms that participatory communication leads to the existence of a myriad, disconnected projects carried out by multiple NGOs, coordination plans were necessary. Providing a sense of orientation and organization was required to prevent that

development efforts become too fragmented and thus weaker. Because NGOs are closer to communities than governments and funding agencies, they have the capacity to respond relatively quickly to demands and developments. However, without a more encompassing vision, projects may only obtain, at best, localized results that fail to have a larger impact.

#### **4.4.1 SOCIAL MARKETING**

Kotler and Roberto (1989) define social marketing as a strategy for changing behaviour. Social marketing encompasses the best elements of the traditional approaches to social change in an integrated planning and action framework and utilizes advances in communication technology and marketing skills. It seeks to influence social behaviours not to benefit the marketer, but to benefit the target audience and the general society.

The theory, especially relevant within the public health context, is message-oriented. The use of communication for social and cultural development has been referred to by different names, the most recent of which is “Social Marketing”. The term encompasses more of the terms to promoting the adoption of socially desired ideas and behaviours (Elkamel, 1986; Kotler & Roberto, 1989).

Social marketing further connotes the professionalism, skill and effectiveness used to make available, advocate and promote products beneficial to society.

Social marketing also involves designing and implementing four basic elements known as the ‘Four P’s’: product, price, promotion and place. They are also called the “marketing mix”. Products can be material items, ideas, beliefs and patterns of thinking. They include for example oral re-hydration solutions, vaccines, breastfeeding, political participation and equal status of the women. Price can be monetary as well as physical or psychological effort or sacrifice involved as a condition for obtaining the product. Promotion in social marketing includes advertising and communication. The fourth “P” refers to the place of the product distribution.

#### **4.4.2 DIFFUSION OF INNOVATION THEORY**

Rogers (1983) describe diffusion as the process by which an innovation is communicated through certain channels over time among the members of a social system.

The definition highlights some important features and these are innovation, time, communication and a dynamic process happening in a social context with the adoption or rejection of the innovation by members of the social system. Rogers (ibid) notes that a kind of a social change occurs as the process results in the alteration and function of a social system.

Diffusion of innovation theory analyses as well as helps explain the adaptation of innovation (<http://www.hsc.usf.edu>). The process helps to explain the process of social change. The model is effective in achieving reasonably high uptake of technologies, which had widespread application and or were simple in their application.

#### **Centralized and Decentralized diffusion system**

Two systems exist for diffusion of innovation i.e. centralized and decentralized system. Diffusion in a centralized system is concentrated at a high level, while decentralized system feature wide sharing of power within the diffusion network (<http://www.edu/Dept/cuts/bench/prinp.htm>)

In a centralized system, diffusion is vertical from top down, as innovations emerge from formal R & D projects. Decentralised systems are horizontal diffusion as local experimentation is often the innovation source. Centralized systems favour technological push, where 'needs' are defined at high level while decentralized systems use technology pull, where needs are defined locally.

Innovations that cannot be easily modified or re-invented are best diffused using a centralized system. Innovations that lend themselves to modification are best diffused by a decentralized approach because such an approach allows local adaptation of innovation to reflect local needs (<http://www.edu/Dept/cuts/bench/prinp.htm>).

## **I. Characteristics of an innovation**

Rogers (1983) states that an innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption. The characteristics of an innovation, as perceived by the members of a social system, determine its rate of adoption

The critical question is why certain innovations spread more quickly than others are. Therefore, for an innovation to spread and be adopted should show:

**Relative advantage.**This is the degree to which an innovation is perceived as being better than the idea it supersedes

**Compatibility.**This is the degree to which an innovation is perceived as being consistent with the existing values, past experiences and needs of potential adopters.

**Complexity.**This is the degree to which an innovation is perceived as difficult to understand and use.

**Trialability.**This is the degree to which an innovation may be experimented with on a limited basis.

**Observability.**This is the degree to which the results of an innovation are visible to others.

## **II. How information about an innovation is communicated**

Rogers (1983:17) defines communication as the process by which participants create and share information with one another in order to reach a mutual understanding.

A communication channel is the means by which messages get from one individual to another. Mass media channels are more effective in creating knowledge of innovations as they reach more people whereas interpersonal channels are more effective in forming and changing attitudes toward a new idea, thus influencing the decision to adopt or reject a new idea. Most individuals evaluate an innovation not based on scientific research by experts but through the subjective evaluations of near-peers who have adopted the innovation ([http://www.aparson.edu/lima/thesis/documents/diffusion of innovation](http://www.aparson.edu/lima/thesis/documents/diffusion%20of%20innovation)).

... innovation- decision process is an information- seeking and information processing activity in which an individual obtains information in order to decrease uncertainty about the innovation (Rogers, 1983).

### **III. Time**

Time dimension is involved in diffusion in three ways. First, time is involved in the innovation-decision process. The innovation- decision process is the mental process through which an individual (or other decision- making unit) passes from first knowledge of an innovation to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision. An individual seeks information at various stages in the innovation-decision process in order to decrease uncertainty about an innovations expected consequences.

### **IV. Nature of the social system**

The fourth main element in the diffusion of new ideas is the social system. A social system is a set of interrelated units that are engaged in joint problem solving to accomplish a common goal (Rogers, pp24). The members or units of a social system may be individuals, informal groups, organisations, and or sub-system. The social system constitutes a boundary within which an innovation diffuses.

The diffusion of an innovation through a social system, such as an organisation or a group of farmers will be affected by the norms of the group. Norms are the established behaviour patterns for the members of a social system (Rogers, pp27). The opinion of the leaders within that social system will affect adoption. Innovation can be adopted or rejected by individuals or by an entire social system.

Roger's (ibid) further notes that there are consequences associated with the adoption or rejection of the innovation. There maybe desirable or undesirable consequences, direct or indirect consequences, anticipated or unanticipated consequences. These consequences

are communicated to other individuals within the social system. What actually eventuates as a result of the adoption of an innovation will influence the long-term adoption of that innovation. That is, individuals may change their attitude towards an innovation if the consequences of adoption or rejection of that innovation has different consequences than initially envisaged.

## **V. Rejection and Discontinuance**

As Rogers and Shoemaker (1971) points out, an innovation may be rejected during any stage of the adoption process. Rogers defines rejection as a decision not to adopt an innovation. Rejection is not to be confused from discontinuance. Discontinuance is a rejection that occurs after adoption of the innovation.

Rogers (ibid) provides synopses of many of the significant research findings on discontinuance. Many "discontinuances occur over a relatively short time period" and few of the "discontinuances were caused by supersedence of a superior innovation replacing a previously adopted idea". One of the most significant findings was research done by Johnson and Vandal Ban (1959):

Rogers identifies two types of discontinuance:

- (1) Disenchantment discontinuance - a decision to reject an idea as a result of dissatisfaction with its performance, and
- (2) Replacement discontinuance - a decision to reject an idea in order to adopt a better idea.

## **4.5 ADULT LEARNING MODEL**

This approach emphasises developing the skills of individual users and empowering them to manage their own change process. It is not directed by a national/organisational /community goal but is fundamentally an individual approach. Its greatest strengths are that there is consultation with users to establish needs and self-directed learning is more likely to result in implementation.

However, consultation may have occurred only with groups with whom researcher's extension agencies feel most comfortable. Late adopters may still have needs ignored because they are less likely to be involved in community consultation.

The approach does not draw on researchers' ability to identify new opportunities but concentrates only on problem solving.

#### **4.6 INTERDEPENDENCY APPROACH**

More recently, an "interdependency approach" has been proposed for extension. The approach combines the best elements of the diffusion and adult learning models. Important elements include involving users or stakeholders in definition of their (technology) needs and in defining the goals of extension programmes.

Taking advantage of diffusion processes to get maximum impact from the extension program has several advantages, user definition and understanding of both the need and the solution increases the applicability of the programme and adoption of the change.

Involvement by stakeholders from the start of the programme enhances the change process and increases commitment to the outcomes, Involvement of stakeholders from an early stage allows people to learn in a stepwise process. This builds on the stages that people go through in learning about and adopting a new practice.

However initially slower progress on project and consultation may frustrate some participants. The change agent has less control over the outcomes as these are driven by stakeholder / household needs.

Mbozi (2000) defines Small-Scale farming households as those that own and cultivate up to 10 ha of land. Household on the other hand refers to a group of people sharing a common cooking health. The household was a focal point in understanding participatory communication.

## CHAPTER 5

### 5.0 FINDINGS OF THE SUDY

#### 5.1 OVERVIEW

This chapter presents analysis and interpretation of the data collected by means of questionnaires and interview guide as research instruments. As earlier pointed out, this study was aimed at evaluating the participatory communication strategies that the Agriculture Support Programme was using in facilitating “Farming as a Business” to the target group with a view to look at how these approaches had impacted the small-scale farmers and staff in Mpika District. Furthermore, the study sought to determine how these approaches could be sustained/incorporated to approaches used by Ministry of Agriculture and Cooperatives when interacting with farmers. It was the general feeling of the respondents to have these approaches as part of the topics in communication skills at Zambia College of Agriculture, Mpika.

The results of the study were analysed in line with the set objectives.

The specific objectives of the study as ealier alluded to were:

- To review communication strategies employed by the Agriculture Support Programme (ASP) in facilitating agricultural development interventions in Mpika district;
- To find out the impact ASP programmes have on the targeted beneficiaries and how the existing communication development strategies have assisted in achieving the desired impact;
- To determine Agriculture Support Programme communication structures and how they have impacted in enhancing participatory communication;
- To ascertain the sufficiency of the participatory strategies used in facilitating social change among rural farmers;
- To gauge the level of understanding and appreciation of participatory communication by the field and district based staff;
- To assess the capacity of the curriculum at ZCA Mpika on the teaching of participatory communication; and,
- To identify the gaps in the process if any and make recommendations on how the strategies would help achieve significant impact.

## 5.2 ANALYSIS AND INTERPRETATION OF THE FINDINGS

### 5.2.1 Characteristics of the respondents

This aspect was considered vital in knowing the categories of people the researcher was dealing with if their responses were going to be inferred to the population. The respondents were asked to indicate their sex and age.

From the study, five key respondents/informants namely three District Coordinators (DCs), Field Business Coordinator (FBC), and Facilitation Team Leader (FTL) participated in the study. At the same time, 52 respondents (26 district and field staff and 26 farmers) out of the targeted 60 representing 86.67 percent returned the questionnaires. The researcher also interviewed the District Agricultural Coordinator, Zambia National Farmers Union and Micro-Bankers Trust. Out of these respondents for staff, about 80 percent were males while 20 percent were females. This high number of males reflects the situation in Mpika District. While an analysis of the data of farmers revealed that 84.6 percent were males against 15.4 percent females.

The study also revealed that the age distribution of agricultural extension workers in Mpika District ranged from 20-49 years. The majority about 30.8 percent of the agriculture extension workers' was found to fall within the range of 30-34 years and followed by 25-29 years at 23.1 percent; see Table 1 for more details.

**Table 1: Age of staff in years**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 20-24	1	3.8	3.8	3.8
25-29	6	23.1	23.1	26.9
30-34	8	30.8	30.8	57.7
35-39	4	15.4	15.4	73.1
40-44	2	7.7	7.7	80.8
45-49	5	19.2	19.2	100.0
Total	26	100.0	100.0	