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① ZIMBABWE

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CONSULTANCY REPORTS

211

ZIMBABWE INSTITUTE OF DEVELOPMENT STUDIES

**An Evaluation of
Agricultural Extension
Services Support to
Women Farmers in
Zimbabwe With Special
Reference to Makonde
District**

Sam Moyo
P.M. Mutuma
S. Magonya

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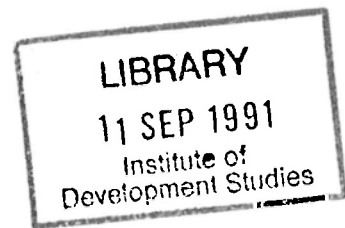
P.O. Box 880 HARARE

CONSULTANCY REPORT SERIES

Number 12

**AN EVALUATION OF AGRICULTURAL
EXTENSION SERVICES SUPPORT TO WOMEN
FARMERS IN ZIMBABWE WITH SPECIAL
REFERENCE TO MAKONDE DISTRICT**

JUNE, 1987



**P.M. Mutuma
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**ZIMBABWE INSTITUTE OF DEVELOPMENT STUDIES
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PREFACE

This study was conducted under contract for the Food and Agriculture Organisation (Rome) in close consultation with the F.A.O. (Harare), Agritex and other relevant Government ministries. It represents a pilot evaluative study focusing on details of one of Zimbabwe's fifty-five political administrative districts. It is neither comprehensive nor exhaustive of the various issues of concern regarding the nature and level of agricultural extension services to women and their effectiveness. It is our hope that it will provoke further policy dialogue and research on this previously neglected topic.

ACKNOWLEDGMENTS

The research team and ZIDS gratefully acknowledge the support provided by all government and non-governmental organisations in the course of the work, Kate Truscott for her advice and support as the F.A.O. study co-ordinator, the employed interviewers, Dr R. Maya for computer advice and most importantly the interviewees who patiently provided the basic data.

Sam Moyo

Study Co-ordinator

June 1987

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ACRONYMS USED IN THE REPORT

| | | |
|----------------|---|--|
| AEO | - | Agricultural Extension Officer |
| AES | - | Agricultural Extension Supervisor |
| AGRITEX | - | Agricultural Technical and Extension Services |
| AFC | - | Agricultural Finance Corporation |
| ARDA | - | Agricultural and Rural Marketing Authority |
| CMB | - | Cotton Marketing Board |
| CSC | - | Cold Storage Commission |
| DDF | - | District Development Fund |
| EW | - | Extension Worker |
| NGO | - | Non-Governmental Organisation |
| PAEO | - | Provincial Agricultural and Extension Officer |
| PDC | - | Provincial Development Committee |
| RAEO | - | Regional Agricultural and Extension Officer |
| VIDCO | - | Village Development Committee |
| WADCO | - | Ward Development Committee |

CHAPTER ONE

INTRODUCTION

This report presents the results of an investigation of the nature and patterns of agricultural extension services to women and their effectiveness in Zimbabwe. It is based on a detailed survey of Makonde district in Mashonaland West Province, focusing on the relationship of agricultural extension services to the various socio-demographic, resource structure, economic, organizational, and perceptual features of women farmers. It also assesses the activities, practices and perceptions of agricultural extension workers and administrators as part of a broader attempt to evaluate agricultural extension policy within the framework of the Government's overall agricultural policy. The aim is to assist Government and non-governmental organisations providing related services to women to improve their extension services to women farmers.

Terms of Reference

The study was guided by the following set of broad objectives embodied in terms of reference designed by the F.A.O. in Rome.

- Concisely setting forth a brief historical sketch of the agricultural extension service;
- A discussion of the current priorities and concerns of extension service officials in terms of reaching rural women;
- A discussion of the response of rural women to the impact of the extension service and its ability to provide timely and appropriate agricultural information;
- A presentation of an analysis of the effectiveness of the agricultural extension service in reaching rural women with timely and appropriate information;
- An inclusion of the researchers' conclusions and recommendations of how the extension service should continue or improve its performance in terms of reaching rural women;
- Produce a report on the findings, the outline submitted by F.A.O., providing organised and systematic comprehensive information.

The more detailed terms of reference, representing a revised version of those drawn up in Rome, following consultations between F.A.O. (Harare), Agritex and Z.I.D.S. are presented in the appendix. These objectives are more clearly specific in later sections of this report, following a brief discussion of the research problem.

Statement of the Problem

Methodological Issues

The main problem that confronted the research team in attempting to evaluate the agricultural extension services to women in Zimbabwe was to appropriately contextualise both the theoretical and substantive assumptions underpinning the study terms of reference within the concrete reality of the country. Some of the issues of critical concern that arose are detailed in the following pages in order to place the actual study in perspective.

One critical issue of concern is the timing of the study. The situations, policies and practices under review, through a one-off longitudinal survey, reflect the result of six and half years of a transformation process (since independence), in a transition from a colonial socio-political and economic environment to a national democratic order based on stated long-term objectives of change towards socialism.

The survey thus has limitations in terms of its framework and is conducted under fluid conditions characterized by experimentation in policy and programme implementation under various institutional, financial and manpower constraints. To assess the effectiveness of agricultural extension services in such a context is thus intrinsically problematic.

While the study focuses on women farmers only in Communal Areas, it is important to contextualize their position and role within the broader national policy and economic framework in order to grasp the specific impact of the overall transitional problematic and transformational processes on their agricultural activities. In this context the critical feature of Zimbabwe's economy, in particular the agricultural sector, has been and still is its dualistic nature. Briefly this is characterised by two broad sub-sectors, large-scale commercial farm sector (LSCF) and communal area or peasant farm sector (CA), in which the farmer is dominant in terms of ownership and access to land (quality and quantity), financial markets, products markets, infrastructure and services. The latter sector basically constitutes labour reserves, intended more for labour reproduction and maintenance rather than being systematically developed towards achieving greater and efficient agricultural production.

The colonial institutional and policy framework ensured this dualism, which had, as its major objective, to manage and control labour supplies to the LSCF, mining and industry. As a result Communal Areas are characterized by high levels of male labour migrancy, female dominance of agricultural production, low levels of investment into agriculture, poor infrastructure and poor agricultural performance in general.

Assessing the efficiency of agricultural extension services in Communal Areas should therefore entail a detailed understanding of the agricultural situation itself with a clear identification of changes and improvements in production and practices, apart from focusing on official extension service practices and responses to these by women farmers.

Furthermore, the agricultural policy changes since independence themselves need to be properly understood in order to contextualize agricultural extension services policies and practices, let alone measure their effectiveness and appropriateness. In this context the following agricultural policies, gleaned from the Transitional National Development Plan, represent the main transformational context within which agricultural extension services need to be evaluated.

- To effect an acceptable and fair distribution of land ownership and use;
- To strive to achieve a rapid reduction in the levels of absolute poverty in rural areas, together with an accelerated improvement in the standards of living of the rural population;
- To increase both land and labour productivity in all forms of agriculture;
- To achieve substantial increases in employment for the rapidly growing labour force;
- To achieve and maintain food self-sufficiency and regional food security;
- To increase the role of agriculture as a major foreign exchange earner and a source of inputs to local industries;
- To integrate the two agricultural sectors;
- To promote regional balance in agricultural development;
- To develop human resources in the rural areas to their full potential and
- To develop men and women and integrate them into all spheres of life in the country.

The main thrust of the above policies is to redress pre-independence imbalances and stimulate economic growth in Communal Areas. These broad policies however are not prioritized within the development plans, in terms of timing, resource allocation and improving the role of women in agriculture which are critical components of the overall policy framework.

At the same time, however, given the past negligence of Communal Areas, the variety of agricultural policies suggest a broad package of incentives and programmes directed at changing Communal Area activities and energies in general, agricultural production activities and the role of women in all these. An evaluation of agricultural extension services would necessarily have to be placed within the broad context of such induced changes, in order to carefully glean inter-related processes within the Communal Areas that determine the effectiveness of extension services.

For example, it would perhaps be critical to assess agricultural extension policy indirectly first, through an analysis of central government crop production targets (both for food and local industrial purposes and for export) and pricing policy incentives and/or disincentives to the peasant farmer responses to these policies in relationship to the past and current existing agricultural extension specific policies and practices. Such an analysis could then be related to other processes and objectives such as nutritional development, whose normative expectations and achievements could be used as one of the criteria to determine the appropriateness of agricultural extension services.

Clearly an analysis of agricultural policy formulation, implementation and co-ordination in relation to agricultural extension services would be useful to a study of this nature, at least in defining the evaluative parameters utilized within the transitional socio-economic and political context of Zimbabwe.

It was of course not part of the terms of reference to look into some of these critical contextual issues nor did the time constraints permit more than their cursory treatment in sections two and three. In the course of the survey findings analysis some of these contextual issues are also tackled.

The study team also confronted a range of theoretical and substantive research problems related to more specifically the role of women in agriculture and to the agricultural extension services in Zimbabwe. These are briefly treated in the following pages.

The Role of Women in Agriculture

On the role of women in agriculture a number of facts regarding their position and status in agriculture, Government policies towards women's emancipation and development and existing national and local level women's organizational activities require clear careful understanding in order to contextualize the study.

In this context, firstly it is critical to note that the role of women in Zimbabwe's agriculture is largely circumscribed by the general demographic patterns in Communal Areas, where women form by far the majority (60-70%) due to labour migrancy and the growing urban migration in general. Relatedly and as a result of this a large proportion of rural households are headed by women (on average 45%), ranging in some districts from 10% or less to over 70% in others.

Women thus tend to be the "manager" of peasant enterprises as well as perform most of the labour activities, while some of the female-headed households benefit from small remittances from migrant husbands. In some households (in proportions which vary widely) remittances in cash, goods or agricultural inputs form a significant factor in farm capitalization or merely the use of hybrid seeds and agro-chemicals, so that labour migrancy has varied positive and negative backward and forward linkages to peasant agricultural production.

These and other factors are critical in assessing and explaining the impact and responses to agricultural extension services. An attempt is made at various points in this report to draw out the significance of these issues to the evaluation exercise.

Regarding policy on the one hand, although Government commitment to the advancement of women at the general level is clear, and reasonably self-evident in its establishment of a specific Ministry for Women's Affairs and Community Development the specific policy and/or guidelines for the effective enhancement of the role of women in agricultural production tends to be less clearly articulated and, therefore, does not provide evaluative targets by which performance can be measured. As discussed earlier policy analysis of such issues is critical for a study of this nature.

While the policy framework directed at health-related and community participation activities is much more clearly articulated in relevant policy documents, policies regarding the leadership role of women in decision-making at the national and local level, and measures to ensure equitable access and control of resources for agricultural development tend to either be partial, less clearly provincial or subordinated by other policies. Thus while in the case of health and related activities, numerous programmes have already been and are being implemented by the state and NGOs, in the sphere of agriculture only a few "women's groups projects" of dubious economic viability have so far been implemented through NGOs and donor agency funded projects.

State programmes directed less at privileged male peasant farmers, including agricultural extension services have only recently begun to be developed on an "experimental" and "pilot" basis. This situation suggests the need to develop an integrative agricultural policy framework for women's participation at the heart of economic activities in rural areas, and not policies based on marginal, peripheral activities.

On the other hand, various policy advances have been made in Zimbabwe since independence on the individual rights of women. Critical aspects include age of majority, inheritance, usufruct rights, marketing rights and others which are significant in defining the role of women in agriculture.

Again, it is only possible to highlight these issues at present and to indicate that they necessarily constitute important elements in assessing the appropriateness and effectiveness of agricultural extension services to any satisfactory degree.

In the same vein, the role of women's organizations intended to mobilize rural women in the struggle against inequalities and for the improvement of their condition, either through direct confrontation or collaboration with private and State institutions or through so-called "self-help", is a critical element which affects and influences women's demands for and responses to agricultural extension services. Numerous non-agricultural or directly agricultural women's pre-co-operatives have emerged since independence representing a significant institutional-organizational framework, which has yet to be fully tapped by Government institutions including agricultural extension agencies. An understanding of the specific goals structures, operational modalities and potential linkages of such women's organizations would contribute immensely to an evaluation of agricultural extension services.

Agricultural Extension Services with Reference to Women

A major theoretical and practical research problem arising out of the study terms of reference, which is given more detailed special consideration in section four, is the operational and definitional construction provided by the term "agricultural extension services". While in the Zimbabwean context this naturally confines itself to Agritex (see section four) and the terms of reference demanded a focus on Agritex, there are numerous extension services related directly or indirectly to agricultural production activities which are of critical relevance to an evaluation such as this one. Although some interviews were held with officials of the Ministries of Community Development and Women's Affairs and Local Government, less attention was paid to a variety of non-Agritex extension workers, for example in health and forestry, due to the narrow study focus.

This problem is part of a broader policy and planning conceptual and implementational problem in Zimbabwe that needs to be continuously treated in interpreting various aspects regarding the

effectiveness and appropriateness of agricultural extension services. Moreover the historical experience, as discussed later, of extension services provision in Zimbabwe, in relation to the nature of the colonial state, its imperatives and methods of operation, are critical aspects in determining the receptiveness of Communal Area households to specific agricultural extension services. The historically defined position of women and the attitude of the State and its officials to women, is thus a critical element of concern for such an evaluative exercise. The question is to what extent has the State's attitude and practices, apart from stated policy, changed since independence. Again this issue could not be fully tackled in this study but needs to be taken into account in interpreting the study findings.

One other general problem however in dealing with research focused on women, such as this one, remains the danger of conceptually separating women from of a given reality through the data collection exercise. Given the already existing poor data base on women's extension services and more importantly on the local and/or traditional methods of agricultural information and practices diffusion,, the methodological focus required in the terms of reference could potentially construct a holistic analysis of the problem. Some specific areas of concern, such as household decision-making and/or taking process were not fully catered for in the study and due to time constraints could not be incorporated into the survey. Other aspects such as labour process analyses, were either poorly presented in the questionnaires or would require more time to treat adequately.

In reality therefore this research project has limitations related to developing a rigorous theoretical framework for defining and analysing agricultural extension services, although it treats fairly adequately the manifestations or expressions of policy and practices of agricultural extension services in Zimbabwe.

Finally, research orientation on the women farmers as individuals in households, while time-consuming in survey work, left little room for treating women's groups as extension service units in their own right. A few interviews of such groups were undertaken as a means of exploring the dynamics and potential usefulness of such groups to agricultural extension agencies. This aspect is critical in assessing the commonplace assumptions by Governmental and non-governmental organizations that women's groups are efficient and successful vehicles of promoting agricultural development. An attempt has been made at various stages to interrogate this assumption, its relevance to Agritex and existing programmes in the study area.

Having thus outlined the broad study objectives and research problems, the following Chapter deals with the profile of the study area, Chapter Three tackles the study approach, Chapter Four discusses Zimbabwean extension services in general while Chapter Five deals with the survey findings. The final section, Chapter Six, interprets the findings and concludes the study with some recommendations.

CHAPTER TWO

STUDY AREA PROFILE

Introduction

This section presents a specific profile of Makonde District, the study area, and in general Mashonaland West Province which it falls under (see maps 1 and 2). It discusses the areas' political-geographical and environmental set up, land use patterns, general economic aspects, agricultural activities and the administrative aspects of agricultural extension services in the study area. The purpose of this section is to provide both general background information on the study area and to relate and contextualize agricultural extension services in view of various substantive research issues raised earlier.

Mashonaland West Province is one of eight provinces in Zimbabwe, including Mashonaland East, Mashonaland Central, Manicaland, Masvingo, Midlands, Matabeleland North and South. These provinces are receiving increased responsibility in economic planning since independence, in order to redress the hitherto highly centralized planning process during the colonial period. This evolving decentralization policy is seen as an instrument to further democratize decision-making, decentralize and integrate sectoral development planning, and in doing so it provides previously neglected Communal Areas with a framework to bargain for resources.

The provinces are further divided into Districts, whose function is to execute and administer development in the respective areas. There are fifty-five Districts in the country, each with an urban centre or "growth point" or service centre from which planning radiates. The districts are administered so far through four main administrative units which represent different systems and interests (these are under review in favour of a unitary system), namely; the District Councils (responsible for communal area administration), Rural Councils (commercial farming sector), Municipalities (urban developments) and the smaller area of state land, administered at national level, e.g. national parks. The District Council areas are further divided into smaller units that are designed to decentralise local government, further democratise decision-making, and include the voice of the people at the grassroots in development planning. These units are the Ward Development Committees (WARDCOs), and each ward has smaller units called Village Development Committees (VIDCOs).

The status of agricultural extension services within this political geographical administrative framework is discussed in later parts of this report. Makonde is one of the five districts within Mashonaland West Province including Hurungwe, Chegutu, Kadoma and Kariba. Whilst the administrative structures of the five districts are almost uniform organisationally and functionally, many differences exist among the districts, in terms of:- human settlement patterns, land use patterns, agro-ecological zones, infrastructural development, communication networks, resource endowment, social economic profiles, and cultural organisation.

Table 1 shows the names of the communal area administrative centres and of the district councils of Mashonaland West Province. This province boasts long established middle-sized towns in the heart of Zimbabwe's most prosperous agro-economic region.

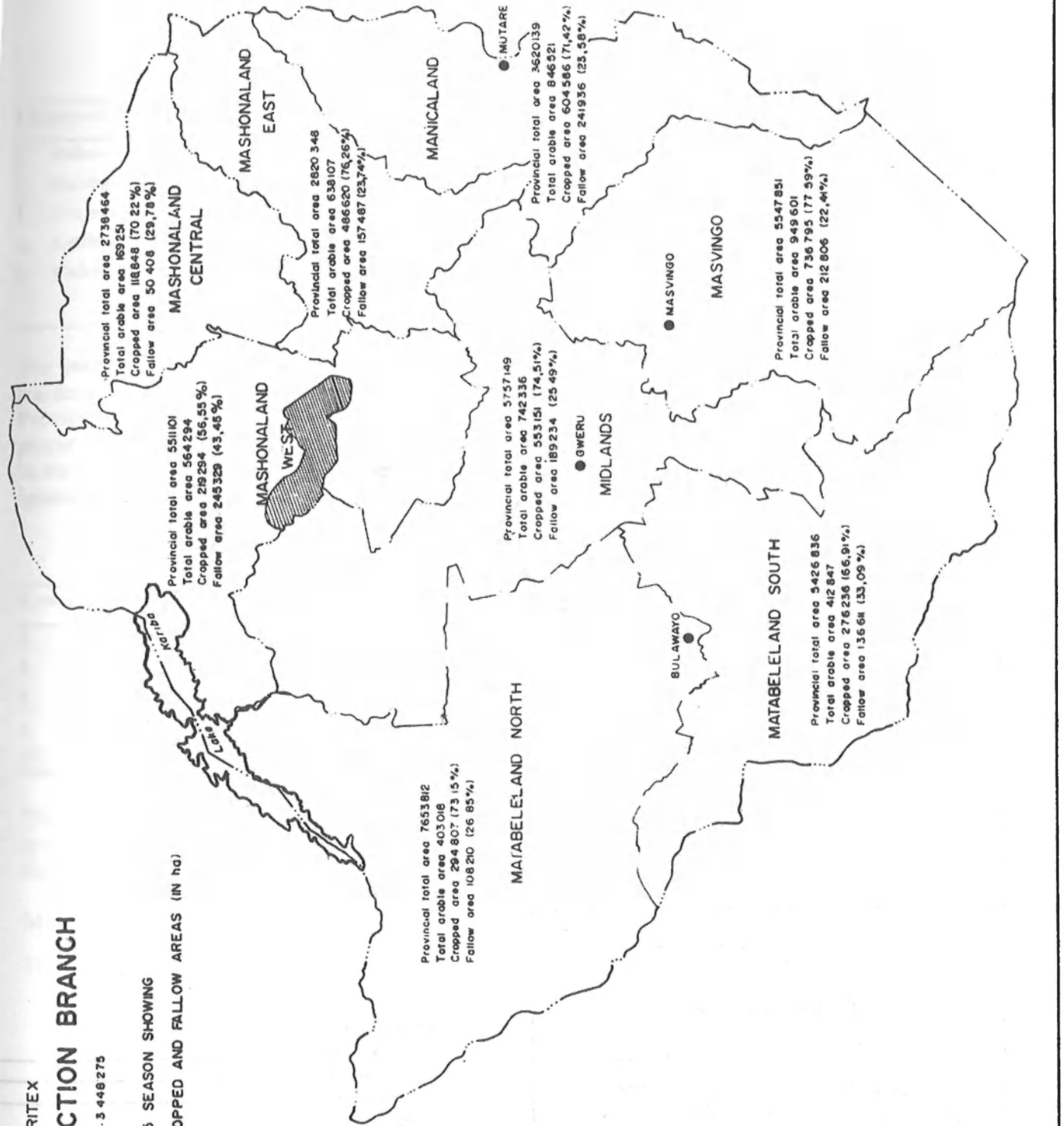
AGRITEX

CROP PRODUCTION BRANCH

Scale 1:3 446 275

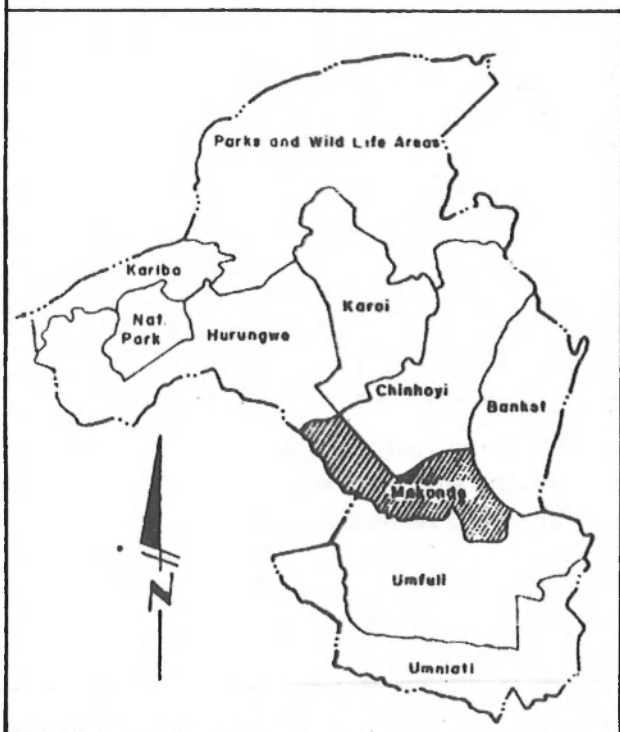
CROP SAMPLE SURVEY 1984/85 SEASON SHOWING

PROVINCIAL TOTALS, ARABLE, CROPPED AND FALLOW AREAS (IN ha)



MASHONALAND WEST PROVINCE
MAKONDE REGION
 Programme Plan 1984/85

Scale 1:1 000 000



LEGEND

BOUNDARIES:

- International: (long dashed line)
- Provincial: (short dashed line)
- Regional: (dash-dot line)

ROADS:

- National: (long dashed line)
- District: (short dashed line)

Table 1
MASHONALAND WEST ADMINISTRATIVE AREA CENTRES AND COUNCILS

| Administrative District | Major Centre | District Council |
|-------------------------|---------------|-------------------------------------|
| 1. Makonde | Chinhoyi Town | Chirorodziwa D.C. |
| 2. Hurungwe | Karoi Town | Hurungwe D.C. |
| 3. Chegutu | Chegutu Town | Mhondoro D.C. |
| 4. Kariba | Kariba Town | Nyami-Nyami D.C. |
| 5. Kadoma | Kadoma Town | (i) Ngezi D.C. (ii) Sanyati D.C. |

The population of Mashonaland West in 1982 was 858,962 (census, 1982) and, 617,300 in 1969 (census, 1969) with an annual average rate of growth of 2,6 percent per annum. The land area of the Province is 60,647 square km, and the population density is 14.2 persons per square km. Over 50 percent of this population is in the LSCF as farm labour, while only 25 percent of this population is in the Communal Areas (see Table 2). As mentioned earlier the study area falls in the heart of the labour drawing areas of Zimbabwe's labour economy.

Table 2
POPULATION DISTRIBUTION BY ADMINISTRATIVE UNIT

| Council Type | Population |
|---------------------------|------------|
| 1. District | 281,576 |
| 2. Rural | 471,263 |
| 3. Municipalities | 100,943 |
| 4. Others e.g. State land | 5,180 |

Source: Census, 1982

The fact is, the majority of the provincial population residing in commercial farming areas is not found in most provinces and thus points towards specific socio-economic processes and relationships within the study area, which require critical attention in generalizing the results of this evaluation.

Major Land Use patterns

The major land uses in Mashonaland West can be classified into seven district categories, namely:

- Communal Lands;
- Large-scale commercial farming areas;
- Small-scale commercial farming areas;
- Resettlement areas;
- Safari Areas (Chewore, Nyakasanga/Hurungwe and Chalala)
- National Parks (Mana Pools and Matusadona)
- Recreational Parks (Kariba and the lower portion of Lake Robertson).

The most predominant is the large-scale commercial farming area (LSCF) which covers 35 percent of the Province followed by the Communal Lands with 27 percent, then the Safari Areas and National

Parks with 18 percent and 10 percent respectively. The recreational parks are confined to water bodies and take up the smallest area, together with the recently introduced Resettlement schemes. As will be seen later very little high quality land has been transferred in this Province from the LSCF to the Communal Areas, although indeed population densities there do not suggest land shortages and this high demand for resettlement from within.

Economic Activities

The main economic activities of the Province are outlined briefly in the following pages. The Province together with Mashonaland Central are the biggest agricultural producers both on the domestic and international markets. The Province's small-scale commercial farmers and peasants are also leading producers in productivity terms. Major crops produced include: tobacco, maize, wheat, soya beans, cotton and oil-seed.

Both transitional corporations and national concerns are heavily involved in mining within the region. The main minerals produced are: chromium, gold, phosphates, manganese, nickel and copper. An important geological formation in the southern part of the Province is the Great Dyke which runs through Kadoma, Chegutu and Makonde District. This area forms part of the major gold fields in Zimbabwe.

As far as manufacturing is concerned Zimbabwe's main cotton processing and textiles industries are found around Kadoma and Chegutu. Small industries in agro-based chemicals and engineering are also found in the Province. The Province has a wide range of natural resources, the endowment varying by district. Hurungwe and Kariba offer excellent forest reserves and wildlife. However, problems that affect the realization of the full economic potential of these natural resources relate to the general inaccessibility of the area owing to the hostile terrain, the reckless exploitation of these resources through deforestation, poaching and competition by wildlife and man for existence.

The Province offers excellent tourist opportunities and has a vibrant tourist economy. The Zambezi River, Lake Kariba and the Kariba Dam, the Chinhoyi Caves, Lake Mcllwaine, the Mana Pools and Matusadona National Parks and Chewore, Nyakasanga/Hurungwe and Chalala safari Areas, attract many international visitors, earning the country much foreign currency. Local trade is also boosted through these visitors.

The country's main hydro-electricity generation plant is located in Kariba, and provides employment to many people as well as providing the source of most of Zimbabwe's marketed fish at Lake Kariba. Unfortunately, the rural people of the district benefit very little from the resource, either as food or an economic activity, due to the inequitable resource ownership structure in Zimbabwe. There is a generally depressed informal sector in the Province due to a variety of constraints.

Regarding transport infrastructure, truck and feeder roads are generally good, except the road to Bumi via Karoi, but most roads leading to the Communal Areas are quite poor and often offering dry weather accessibility only. GMB depots have been sited near the major centres to handle marketed produce, and so the Communal Areas hinterland is ill-serviced. Information and telecommunications networks become scarce and non-existent as one moves to the interior and remote areas. Irrigation schemes have recently been attempted on a pilot basis in a few areas in the communal sector, with numerous problems such as, long distance from water source for many farmers, marketing outlets, input costs, community organisation, land problems etc. Educational and Primary Health Care provisions have made significant milestones after independence. An increasing number have access to these services which were previously unavailable and inaccessible.

The Physical Environment

Topography and Water Resources

The Province of Mashonaland West lies along the crest between the Munyati-Sanyati and Manyame river system. To the south the land rises to an altitude of over 1200m along the central highveld. It gradually slopes northwards falling to about 200 metres along the shores of Lake Kariba and the banks of the Zambezi River. The terrain is gently undulating in the south, but mountainous and ragged in the north. Whereas the southern region is favourable for agriculture, the northern areas of the Province, covering Kariba and parts of Hurungwe District, present a difficult environment for both human settlement and communication.

Of the two main drainage systems (the Sanyati and Manyame) which drain into the Zambezi River, the former has the Munyati and Mupfure rivers as its tributaries. A series of streams flowing east and west into these dissect the province from the central watershed. To the north the Zambezi Escarpment forms the drain for a multiplicity of swift streams flowing into the lower Zambezi Valley area.

These drainage systems, however, consist of basically seasonal rivers, except for the lower parts of the main ones closer to the estuaries. This seasonality results mainly from the intensity and duration of rainfall in their respective basin areas, as well as the effects of dams e.g. reservoirs for urban water needs, the latter being mostly true for the Manyame River. Despite the seasonal nature of these rivers, the province has a reasonable potential of both surface and underground water for small dams or boreholes, to supply water for local consumption and small-scale irrigation.

Soils and Their Agricultural Potential

The province comprises of 3 broad soil classes. Along the Sanyati drainage basin and the Zambezi Valley north of the escarpment, the soils are mainly lithosols. These are very shallow averaging 25cm deep and occurring over semi-weathered rock or gravel regolith. This soil type is also found on the main mountain ranges in the north.

The second and most extensive soil type which occurs in the southern parts consists of fersiallitic group of soils of the kaolinitic order. These predominate in the highveld parts of the province and consist of moderately to strongly leached soils, with clay fractions consisting mainly of kaoline, together with elements of iron and aluminium. This soil type occurs in moderately deep levels to support extensive vegetation and agricultural activity. The last soil group occurs along the Lake Kariba shores and Zambezi Valley. It consists of a shallow siallitic type with patches of natic and regosols. For the Chegutu and the southern parts of Kadoma and Makonde Districts the soils are reddish brown loams with occurrences of silty sandy and clay loams found on rocks. These form the most prosperous crop farming areas, with cotton and tobacco in the south and west, and maize and tobacco in the north and east. In Kariba District, owing partly to the broken terrain and the geology, the soils are marginal and shallow, consisting of loamy sands and sandstone where cultivation is limited to less than 8% slopes. However the Gatche and Kanyati area have better soils with which to promote good agricultural production. The Hurungwe District has fertile brown medium texture soils, so agriculture is prosperous around the south of Karoi.¹

Natural Regions and Farming Areas

The province consists of 5 agro-ecological zones of farming regions. The highveld area extending from Chegutu to Chinhoyi and Karoi and stretching eastwards comprises an intensive farming region,

¹ Mashonaland West 5 Year National Development Plan

(Natural Region IIa), which forms the best agricultural land in Zimbabwe. Also to the south of this area covering the areas around Chakari, Kadoma and Chegutu is a small intensive farming area (Natural Region IIb). Together these two intensive-farming regions make up just over one third of the province's land area and consist of the bulk of the large-scale commercial farming area of Mashonaland West.

Circling the intensive farming region to the north-west and south is the semi-intensive farming area (Natural Region III) covering southern Mhondoro, Ngezi, Umsweswe, Sanyati and parts of Makonde to the north occupied by Communal and Purchase Areas. This area is bordered by the Zambezi Escarpment and is united to cotton, tobacco and maize cultivation, as well as livestock production.

Lastly, the northern area of the province including Kanyati, Charara and all areas to the north of the Zambezi Escarpment, fall within the semi-extensive (Natural Region IV) and extensive (Natural Region V) farming areas which have limited agricultural potential, owing to low unreliable annual rainfall, the ruggedness of the terrain and the presence of tsetse flies.¹

Makonde Cropping Patterns

The crop yields in 1984/85 in Makonde District are shown in Table 4-8. This gives an overall picture of the type of crops grown in the district. Makonde District, being the heart of large-scale commercial farming has a more diversified cropping pattern in that sector. According to the Annual Report of the Makonde Region for 1985, there has been a decrease in the quantity of maize and cotton produced in the region, whilst there has been an increase in the quantity of groundnuts, soya beans and sunflower delivered to GMB from the region. Livestock has increased from 123 to 130 thousand head of cattle. Reforestation projects have been hindered by lack of fencing and most plantations have been destroyed by animals. The following table gives a summary of cropping statistics in Makonde District.

Table 3
SUMMARY OF CROP PRODUCTION STATISTICS

| Crop | Average Yield/ha (kg) | % Farmers using fertilizer | Number using herbicides | Number using certified seed (%) | Number of Growers |
|------------|-----------------------|----------------------------|-------------------------|---------------------------------|-------------------|
| Maize | 2000 | 80 | 200 | 98 | - |
| Groundnuts | 720 | 5 | - | - | 3,337 |
| Sunflower | 275 | - | - | - | 383 |
| Cotton | 800 | ? | 60 | ? | 4,00 |

The actual crop production patterns of the Makonde district are presented in Tables 4 and 7 and these may be compared with the provincial data in Table 8. As can be seen provincial production over the period 1973 to 1986 of cotton more than quadrupled, maize increased approximately tenfold, sorghum increased by almost twelvefold, groundnuts decreased by approximately 300 percent, wheat decreased by over 90 percent, soya bean was variably static with a poor output in 1985/6, sunflower multiplied by over 100% and other traditional grains increased 4 to 30 times. The highest rates of cotton production increases were in Zvimba and Chirau Communal Areas (fivefold increase), maize increases were relatively equally distributed between Zvimba, Chirau and Mufure (tenfold) while Magondi increased twenty times. Sorghum increased fifteenfold in Chirau while in the other areas the average increase was five times. The major decreases in groundnuts were accounted for by Zvimba and Chirau Communal Areas, while production is concentrated in the other areas.

¹ Mashonaland West 5 Year National Development Plan

Table 4
FIVE YEAR DELIVERY CROP AVERAGES FOR ZVIMBA, MAKONDE REGION
(in Tonnes)

| CROP | COTTON MAIZE | | SORGHUM | | SHELLED UNSHELLED | | WHEAT | | SOYABEANS | | COFFEE | | SUNFLOWER | | MHUNGA | | RAPOKO | | |
|----------------|--------------|-------|---------|------|-------------------|-----|-------|---|-----------|---|--------|---|-----------|---|--------|---|--------|---|---|
| | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | |
| 5 Year Period | | | | | | | | | | | | | | | | | | | |
| 1973/4 - 77/8 | 86 | 1192 | 151 | 12 | 13 | 44 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1974/5 - 78/9 | 128 | 1137 | 086 | 11 | 14 | 71 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1975/6 - 79/80 | 138 | 1036 | 137 | 8.70 | 14 | 112 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1976/7 - 80/1 | 159 | 2778 | 133 | 2.11 | 9.24 | 110 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1977/8 - 81/2 | 161 | 4361 | 195 | 1.42 | 8.21 | 101 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1978/9 - 82/3 | 182 | 4976 | 202 | 0.33 | 2.84 | 73 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979/80 - 83/4 | 243 | 7584 | 452 | 0.18 | 1.61 | 46 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980/1 - 84/5 | 351 | 10153 | 575 | 0.21 | 2.25 | 448 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981/2 - 85/6 | 387 | 10747 | 691 | 0.21 | 2.90 | 132 | - | - | - | - | - | - | - | - | - | - | - | - | - |

Table 5
FIVE YEAR DELIVERY CROP AVERAGES FOR MUPFURE, MAKONDE REGION
(in Tonnes)

| CROP | COTTON MAIZE | | SORGHUM | | SHELLED UNSHELLED | | WHEAT | | SOYABEANS | | COFFEE | | SUNFLOWER | | MHUNGA | | RAPOKO | | |
|----------------|--------------|-----|---------|------|-------------------|------|-------|---|-----------|---|--------|---|-----------|---|--------|---|--------|---|---|
| | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | NUTS | | |
| 5 Year Period | | | | | | | | | | | | | | | | | | | |
| 1973/4 - 77/8 | 326 | 77 | 2.97 | 0.68 | 0.21 | 1.51 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1974/5 - 78/9 | 402 | 63 | 0.45 | 0.65 | 0.35 | 2.14 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1975/6 - 79/80 | 496 | 55 | 0.45 | 0.53 | 0.35 | 2.86 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1976/7 - 80/1 | 628 | 243 | 1.12 | 0.05 | 0.26 | 3.10 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1977/8 - 81/2 | 613 | 269 | 1.46 | - | 0.26 | 2.99 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1978/9 - 82/3 | 624 | 276 | 1.86 | - | 0.19 | 2.32 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979/80 - 83/4 | 743 | 302 | 4.26 | - | 0.05 | 1.71 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980/1 - 84/5 | 953 | 725 | 13 | - | 0.06 | 1.15 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1981/2 - 85/6 | 979 | 923 | 15 | - | 0.67 | 8.90 | - | - | - | - | - | - | - | - | - | - | - | - | - |

Table 6
FIVE YEAR DELIVERY CROP AVERAGES FOR MAGONDI, MAKONDE REGION
(in Tonnes)

| 5 Year Period | COTTON | | MAIZE | | SORGHUM | | SHELLED | | UNSHELLED | | WHEAT | | SOYABEANS | | COFFEE | | SUNFLOWER | | MHUNGA | | RAPOKO | |
|----------------|--------|-----|-------|------|---------|---|---------|---|-----------|---|-------|---|-----------|---|--------|---|-----------|---|--------|---|--------|------|
| | | | | | | | | | | | | | | | | | | | | | | |
| 1973/4 - 77/8 | 233 | 59 | 2.30 | 1.14 | 0.40 | - | 5.05 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1974/5 - 78/9 | 287 | 33 | 0.32 | 1.14 | 0.66 | - | 6.53 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1975/6 - 79/80 | 367 | 24 | 0.28 | 1.04 | 0.66 | - | 7.95 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1976/7 - 80/1 | 433 | 190 | 0.30 | 0.16 | 0.65 | - | 7.18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1977/8 - 81/2 | 425 | 287 | 1.57 | 0.16 | 0.41 | - | 6.78 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1978/9 - 82/3 | 414 | 340 | 1.58 | - | 0.42 | - | 4.61 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1979/80 - 83/4 | 493 | 467 | 3.70 | - | 0.16 | - | 3.30 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1980/1 - 84/5 | 629 | 588 | 8.28 | - | 0.43 | - | 1.72 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.85 |
| 1981/2 - 85/6 | 668 | 957 | 10 | - | 1.09 | - | 0.69 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.44 |

Table 7
FIVE YEAR DELIVERY CROP AVERAGES FOR CHIRAU, MAKONDE REGION
(in Tonnes)

| 5 Year Period | COTTON | | MAIZE | | SORGHUM | | SHELLED | | UNSHELLED | | WHEAT | | SOYABEANS | | COFFEE | | SUNFLOWER | | MHUNGA | | RAPOKO | |
|----------------|--------|------|-------|------|---------|---|---------|---|-----------|---|-------|---|-----------|---|--------|---|-----------|---|--------|---|--------|------|
| | | | | | | | | | | | | | | | | | | | | | | |
| 1973/4 - 77/8 | 95 | 1320 | 1.49 | 5.99 | 2.76 | - | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1974/5 - 78/9 | 142 | 1463 | 1.80 | 4.86 | 3.04 | - | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1975/6 - 79/80 | 195 | 1782 | 2.87 | 2.76 | 2.95 | - | 23 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1976/7 - 80/1 | 268 | 2576 | 2.79 | 0.38 | 2.64 | - | 55 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1977/8 - 81/2 | 278 | 2845 | 3.97 | 0.34 | 2.54 | - | 56 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1978/9 - 82/3 | 322 | 2953 | 5.83 | 0.18 | 1.73 | - | 48 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1.27 |
| 1979/80 - 83/4 | 418 | 4125 | 14 | 0.15 | 1.54 | - | 47 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0.54 |
| 1980/1 - 84/5 | 504 | 4020 | 18 | 0.14 | 2.25 | - | 42 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7.41 |
| 1981/2 - 85/6 | 485 | 4933 | 21 | 0.05 | 3.50 | - | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8.34 |

Table 8

**FIVE YEAR DELIVERY CROP AVERAGES: MASHONALAND WEST
TOTAL DELIVERY BY ALL COMMUNAL FARMING AREAS: FOR ALL THE CROPS,
RETENTIONS NOT TAKEN ACCOUNT OF**

(in Tonnes)

| 5 Year Period | CROP | | | | | | | | | | |
|----------------|--------|-------|---------|---------|-----------|-------|-----------|--------|-----------|--------|--------|
| | COTTON | MAIZE | SORGHUM | SHELLED | UNSHELLED | WHEAT | SOYABEANS | COFFEE | SUNFLOWER | MHUNGA | RAPOKO |
| | NUTS | | | | | NUTS | | | | | |
| 1973/4 - 77/8 | 1468 | 9083 | 12 | 378 | 309 | 9.14 | 639 | - | - | - | - |
| 1974/5 - 78/9 | 1842 | 9923 | 8.85 | 297 | 382 | 5.60 | 1095 | - | - | - | - |
| 1975/6 - 79/80 | 2334 | 11382 | 14 | 247 | 395 | 5.60 | 1869 | - | - | - | - |
| 1976/7 - 80/1 | 2978 | 20814 | 16 | 15 | 307 | 7.37 | 2306 | - | - | - | - |
| 1977/8 - 81/2 | 3106 | 31883 | 23 | 5.96 | 219 | 7.18 | 2084 | - | - | - | - |
| 1978/9 - 82/3 | 3578 | 42654 | 31 | 3.40 | 192 | 3.45 | 1984 | - | 183 | - | - |
| 1979/80- 83/4 | 4853 | 58713 | 75 | 2.36 | 115 | 2.89 | 1605 | - | 717 | 0.02 | 2.15 |
| 1980/1 - 84/5 | 6290 | 81438 | 140 | 1.76 | 80 | 2.89 | 867 | - | 1153 | 0.82 | 45 |
| 1981/2 - 85/6 | 6693 | 95982 | 180 | 1.23 | 65 | 0.51 | 357 | - | 1576 | 1.39 | 62 |

Note: Retentions not taken into account

While it is not possible to discuss in detail the reasons behind these production patterns, a brief outline of Agritex objectives might assist further analysis.

- The plans of Agritex for the period 1989/90 are as follows:
- To increase herbicide use targeted at 100 farmers for maize and another 200 for cotton;
- To increase farm scouting proportion from 70% to 80% for cotton;
- To increase fertilizer and gypsum usage targeted at 20% of groundnut growers and 30% of sunflower growers;
- To double the number of sunflower growers from 383.

Regarding livestock, the plans are to increase cattle fattening in the area for 200 farmers and increase the proportion of those who dehorn, castrate and dose cattle to 23% of the farmers. Clearly, the Agritex objectives are directed at improving productivity among four crops and cattle only.

From the above development plans, and the appended action plans, it is noteworthy to see that there appears to be no mention of small livestock development, as well as the development of goats which are known to do particularly well in dry arid conditions, such as those found in parts of Magondi and Mupfure. Moreover, development of small livestock is implied in the national plans for agricultural development.

Administrative Profile of the Makonde Region

Makonde District is sub-divided into four main administrative areas, namely Chirau, Zvimba, Mufuli (Mupfure) and Magondi. These also conform to the agricultural subdivisions for extension service provisions.

Makonde has in all 17 wards and consequently 27 Ward Development Committees at community level, broken down as follows: Magondi and Mupfure with 5 wards, Zvimba with 7 wards, and Chirau with 5 wards. The wards are delineated according to population numbers. These liaise with the District Councils in the implementation of Development Plans and they are assumed to also have a say in the actual evolution of the plans, since the decentralization policy came into effect in 1983. There are 102 Village Development Committees (VIDCO) each having 6 committee members, with a guaranteed seat for 1 female representative for women and 1 representative for youth. The male-female ratios of the composition of these committees in Makonde are 5 males : 1 woman. The women's representatives are predominantly community development workers of the Ministry of Women's Affairs and leaders of the Women's League of ZANU (ruling party), excepting two women. The composition and female representation needs a critical review, if the voice of women in decision-making is to be taken seriously. The present composition suggests a misrepresentation of the Prime Minister's Directive on Decentralization. Certainly this would affect demands for extension advice.

In the following section, we now deal with the study methodology and pick up some of these extension issues in section four.

CHAPTER THREE

THE STUDY APPROACH AND METHODS

Research Methods

As agreed in the revised terms of reference the approach adopted was the case study method, whereby Makonde district was to receive detailed investigation through questionnaire and secondary data analysis. In fact a variety of specific complementary information and data collection methods were utilized during the two month study period.

The following outlines the various methods used:

- A review of literature on women in agriculture and women's groups. This was to give an insight on how the social and production systems interact and the implication this has on farm women's food crop production;
- Review of literature on Agritex Extension Services and the role of other community development extension agencies on farm women;
- Verbal interviews with Agritex Extension staff and other ministries, parastatals and non-governmental organisations on their roles directly or indirectly, in the provision of extension advice to farmers in the Communal areas and particularly farm women;
- Questionnaire interviews of:
 - Farm women in the study area, which was preceded by pilot survey details of which will be provided later in this section;
 - Extension workers census survey of the districts' extension workers and their problems and constraints;
 - Extension Administrators in Agritex, the department's policy on agriculture.
- Interviews of different women's groups in the enumeration areas, their roles and objectives.
- Informal interviews with extension workers and district officials in Agritex;
- Collection of secondary data from Government officials in different ministries and other sources, such as the central statistics office, marketing boards, local government etc.

Research Issues

The broad issues of the study were briefly outlined in the first section, for which guidelines were provided by FAO questionnaires for 3 target interview groups (see Appendices for the Questionnaires).

Women Farmers:

- socio-economic characteristics of farmers interviewed;
- frequency of extension services;
- adequacy of extension services;

- types of extension service received;
- constraints in agricultural production.

Extension Workers:

- level of extension education obtained;
- any positive discriminatory techniques used to reach farm women;
- special training for field staff;
- any particular audience targeted.

Additionally the study had to analyse the district's agro-ecological and socio-economic features in order to contextualise the survey. This entailed interviews with district and provincial officials, use of government statistics, district plans etc. This background has been provided in the second section to provide a basis for evaluating the survey results by way of assessing a concrete project of women in agriculture. Details on aspects of women's projects are treated in the later sections.

The study also investigated generally, through interviews of officials in the Ministries of Community Development and Women's Affairs and Local Government, Rural and Urban Development, the FAO contact person and women's groups, the role and activities of women's co-operative farming groups.

In the following we discuss in more detail the study approach used for the target groups.

The Pilot Survey

A three day pilot survey was carried out in the study area. This was to elicit from the farming population and extension workers, the way the farmers would react to the questionnaire and the answers the respondents were likely to give. This was to find an estimation of how long the survey would take, how many interviewers would be needed and how much money it would cost. A few test interviews were conducted with 8 communal farmers, 4 extension workers and 2 administrators. The pilot survey sought guidance on:

- the adequacy of the sampling frame from which it was proposed to select the sample;
- the variability within the population of the study area to assist the research team to achieve an understanding of the levels of socio-economic variation among the different households;
- the suitability of the proposed method of collecting data and the efficiency of the enumerators;
- the adequacy of the questionnaires was the most important function of the pilot survey. Several points with regard to the questionnaires were watched - the case of handling the questionnaires in the field, the efficiency of its layout, the clarity of definitions and of course the adequacy of the questions themselves. In the initial FAO Farm Women questionnaire the wording of the questions tended to be ambiguous and showed misunderstanding among the farmers. After the pilot survey the questionnaire was then revised to include now features such as nutrition, credit and marketing information. The questions which were thought to be offending were also worded more delicately after the pilot survey. This testing brought forward important improvements to the efficiency of the enquiry, especially the admissibility of the questionnaire after the training session of the selected enumerators;

- The Extension Workers Questionnaire was also piloted and some additions to include aspects of women extension workers' possible problems in the field were highlighted. The questionnaire also sought information on what specific suggestions the extension workers had to improve their involvement in servicing farmers. Minor adjustments were made to make the questionnaire more relevant to local issues. This questionnaire was administered only in the study area.
- The Extension Administrators Questionnaire was mailed to senior officials at the national level and we still await their response. However, verbal interviews were held with the senior Agritex officials such as the Permanent Secretary, Director, Assistant Director, Provincial Agricultural Extension Officer and Regional Officers. The interviews touched on several aspects relating to extension, such as training work problems facing female extension workers, appropriate technology to various ecological regimes etc.

Although the study was carried out in a District in Mashonaland West, and perhaps the sample was not nationally representative, it was hoped that through the participative involvement by the research team and previous experience shared by the researchers, the study would give a schematic national overview of the problems farm women face in agricultural extension services.

Enumeration Areas and Interviews

Since the study area (District) has 3 agro-ecological regions straddling the 4 communal areas, which were adopted as enumeration areas, it was decided that in the first 2 enumeration areas of Chirau and Zvimba, 50% of the interviews would be administered since the two areas fall under Natural Region IIb. Similarly the other enumeration areas of Magonde and Mupfuri both in Natural Regions III, and IV respectively were allocated 50% of the household interviews. This spatial delineation was made in order to analyse and compare the socio-economic patterns inherent to each agro-ecological endowment. In effect each Communal Area as an enumeration area, was allocated 25% of the interviews.

Six enumerators were engaged and trained to administer the questionnaire. The enumerators were post "O" level graduates, with five or more subjects including English. These enumerators (3 females and 3 males) were all fluent in the vernacular (Shona) language used at interviews and they were instructed to probe interviewees to bring to surface what was implicit or hidden in the questions. The enumerators operated in teams of two, thus forming 3 teams. All the six enumerators are residents of the case study district.

Within each of the 4 Communal Areas the procedure used was to interview 25 households including 10% of men farmers to act as a comparative guide. To maintain randomness from each service centre, 6 to 7 households in the direction of 4 cardinal points had to be selected. The method used was to start household interviews at the edge of the boundary of each enumeration area cardinal point direction and move towards the service centre interviewing every 5th household. This strategy was adopted as a safeguard against biased selection of households.

The collected data was cross-checked by the research team with the enumerators. The data was then coded and recorded before it was computerised and presented in the final draft in terms of frequency distributions.

Survey Constraints and Problems

- The major constraint of the survey was the short time given to complete the study. In view of the long detailed questionnaire and the disadvantage of the enumerators having to quickly

translate each question into Snona and again re-translate the interviewees' responses into written English, each questionnaire needed approximately an hour to complete, excluding the time taken in moving between households, introductions etc.

- The inadequacy of, even, the revised questionnaire on a holistic approach to view the different components or portfolios involved directly or indirectly in household agricultural production.
- The absence of a district register to show geographic location of households in order to avoid the crude sampling or survey technique which had to be adopted.

Before we discuss the survey findings therefore the next section presents an overview of extension services related directly or indirectly to women in agriculture in order to contextualize the survey findings on extension activities in the study area.

CHAPTER FOUR

EXTENSION SERVICES IN COMMUNAL AREAS: AN OVERVIEW

Introduction

Since the broad interest of the FAO was on the national picture of agricultural extension services to women farmers, this section attempts to describe briefly but comprehensively the national picture of these services, and more specifically on the study area.

Prior to independence agricultural extension services, mainly provided by the Department of Agricultural Development (DEVAG) then a department of the Ministry of Agriculture, concerned itself with "conservationist" extension services rather than a "developmentalist" approach. This previous approach was embedded in the enforcing land and soil conservation measures embraced in the Land Apportionment Act. This was most unpopular and led to increased nationalist resistance which ultimately brought about the independence of Zimbabwe from British colonial rule. Among other extension services provided was Community development, which was essentially directed at social engineering communities under traditional chiefs with a view of maintaining "law and order" and develop subservient "development skills" promoting colonial rule.

The post-independence period has witnessed a wide ranging attempt by various Government agencies, parastatals and non-governmental organisations in the provision of agricultural extension services to Communal Areas precisely to make up for the previous neglect. The various types of extension services geared towards agricultural production such as preventive health through self-sufficiency in nutritional food production, land and soil conservation, improved sanitation, water development, rural infrastructure such as roads and a variety of income-generating projects have been conducted by the different development agencies. The Ministry of Local Government, Rural and Urban Development is now the co-ordinating agent of the various developmental strategies in the Communal Areas as shall be detailed later.

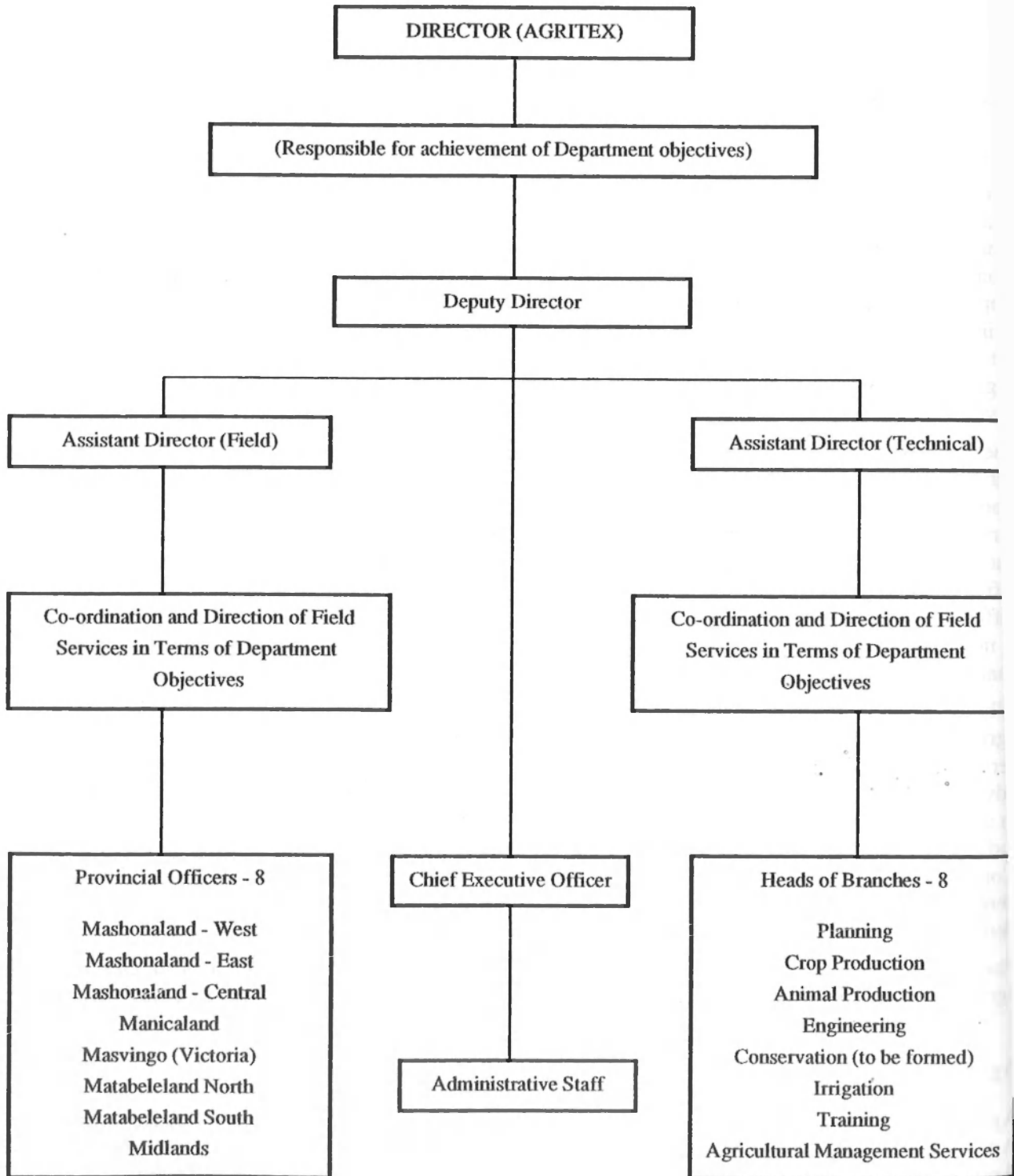
What is important is that most of the services mentioned above are related directly or indirectly to agricultural production although they may not all fall under the purview of agricultural extension services. Moreover to narrow agricultural extension services in terms of "technical" agricultural advice may be a myopic approach to reality and neglecting essential components of extension advice in a given situation. Furthermore much non-agricultural extension advice such as nutrition extension indirectly promotes agricultural activities such as gardening (indeed the work of the Ministry of Community Development and Women's Affairs). Such advice tends to bring about agricultural labour demands which related agencies have to work in co-ordination with so as to narrow conflict in labour demand on each household and complement agricultural extension services.

For the above reasons relevant extension services provided in Communal Areas, beginning with agriculture, are outlined below with emphasis on their activities directed to the area under study.

Agricultural Extension services

Agricultural extension services in Zimbabwe are organised and conducted by the Department of Agricultural Technical and Extension Services (AGRITEX) which falls under the Ministry of Agriculture. Agritex is structured and organised around 2 sub-divisions: Field and Technical Services (see Figure 1).

Figure 1
ZIMBABWE AGRICULTURAL RESEARCH RESOURCE ASSESSMENT
Organisational Structure for the Department of Agricultural Technical and Extension Services



The Field Services are supported by the Technical Services Division. Agritex is also linked through the Ministry of Agriculture to the Research and Specialist Services which does research trials in Communal Areas. Prior to 1982, Agricultural research had been organised mainly for Commercial farmers on a commodity basis, and had a marginal impact in Communal Areas. By 1984, the Department of Research and Specialist Services had established a new research approach under the Farm Systems Research Unit, which attempts a holistic and interdisciplinary analysis of Communal Area farmer problems. These new results are now available to Agritex.

The general and specific priorities and objects of Agritex need to be more clearly outlined. The general rationale of Agritex includes:

- To assist in the implementation of the policy of government in relation to the development of the agricultural industry of the country, taking into consideration the rural development essential for successful, productive and stable agriculture. Generally, Agritex will plan for agriculturally based development, but not be involved with physical construction of works.
- To increase the productivity of agriculture with special emphasis on the communal, resettlement and small-scale farmer areas through the media of agricultural extension.
- To stimulate the adoption of appropriate proven agricultural conservation and management practices leading to increased and profitable production on a sustained basis.
- To promote the development of the people on the land, thus improving the standard of living and the quality of life of the rural people, and
- To provide such necessary services to the commercial farmer in order to maintain and when possible increase productivity.

The more specific priorities of Agritex include:

- Planning of the resettlement and accelerated resettlement areas, and the provision of an effective agricultural extension service to resettlement areas.
- Servicing of the communal areas through the media of effective agricultural extension work with special reference to the rehabilitation programme.
- Serving of the small-scale commercial farmers and new large-scale commercial farmers.
- Providing of an effective conservation service.
- Developing and training of human resources, namely the Department's staff in both the Technical and Extension aspects of the work.²

These priority areas have been specified into the following specific objectives:

- To create an appropriate awareness amongst all landholders, and to identify farmers' groups for appropriate extension effort.
- To encourage cohesive groups of people and to assist them to identify their needs and solve their own problems of agricultural and related development.
- To promote the master farmer and advanced master farmer training schemes, particularly for farmers with limited resources.
- To encourage and assist farmer or producer organisations to solve problems and to further agricultural development.

¹ B.N. Ndimande "Future Directions of Agritex" 1986

² Ibid

- To promote small- and medium-scale irrigation schemes in appropriate circumstances through the appropriate agencies.
- To aim extension programmes at the entire farming household in which women and young people play a key role.
- To co-ordinate extension programmes with appropriate agencies to ensure optimum use of credit and marketing and supply methods.¹

Agritex objectives are clearly circumscribed by the government's agricultural policies and its production targets, whose achievement Agritex has to ensure. In the 1985-1990 plan period, for example, the following targets were set. (See Table 9)

Table 9
FIRST FIVE-YEAR NATIONAL DEVELOPMENT PLAN:
PRODUCTION TARGETS AND EXPECTATION (BY 1990)

| CROP/PRODUCT | TARGETS/EXPECTATION |
|---|--|
| Maize | 3,5 million tonnes |
| Cotton | 460,000 tonnes |
| Wheat | 275,000 tonnes |
| Tobacco | 150,000 tonnes (annual output) |
| Soya beans | Expected to expand |
| Sunflower | Expected to expand |
| Horticulture (Fruits and vegetables) | Expected to expand to increase employment |
| Introduced crops | Expected to expand |
| Diversification of crops | To be encouraged |
| Small animals | To be promoted |
| Over-grazing in communal areas | Government plans comprehensive national programmes (Stocks control, better land management and destocking) |
| Irrigation schemes | Intensive rehabilitation and opening of new schemes |
| Establishment of Co-operatives | In Resettlement and Communal areas |
| Support Services (Agritex) | In-service training. Extension worker/farmer ratio to a Plan target of 1:6000. |
| Resettlement programmes | Intensified and backed by projects. |

In order to enhance these expectations and working within a sustained production growth, Agritex directs its operations towards three functional areas: (a) Communal and Resettlement Areas (b) Small-Scale Commercial Farming Areas (c) Large-Scale Commercial Farming Areas.

This three-pronged areal coverage naturally is constrained in terms of available finances, manpower and institutional infrastructure, and requires a suitable strategy and approach in extension activity.

The following strategies have been defined by Agritex.

- **PLANNING:**

To support the planning of villages, wards and resettlement areas by local Government, through, mapping, soil surveys, land use demarcation etc.

¹ Ibid

² Ibid

- **CROP PRODUCTION:**

Designing of viable production packages in relation to natural regions will be urgently undertaken, incorporating recent findings in water harvesting and tillage techniques. Emphasis is expected to be placed on the timeliness of operations in crop husbandry. Socio-economic constraints to development will be monitored in this context, while support will be provided to co-operative and collective forms of production.

- **LIVESTOCK PRODUCTION:**

Good livestock development and management strategies will be promoted within the framework of proper land-use planning and the functional integration of co-operatives with livestock enterprises.

- **AGRICULTURAL ENGINEERING:**

Appropriate machinery and equipment will be promoted and supported by relevant research.

- **IRRIGATION:**

The implementation of irrigation projects will be emphasised as a means of combating persistent droughts and encouraging food self-sufficiency for local consumption and the marketing of surpluses.

In order to effectively contribute to the above objectives Agritex's financial resources have grown from 1982 to 1987 at the rate of approximately 15 percent per annum (see Table 10).

Table 10
BUDGET ALLOCATION TO AGRITEX (1982/83 TO 1986/87)

| | 1982/83 | 1983/84 | 1984/85 | 1985/86 | 1986/87 |
|---|---------|---------|---------|---------|-------------|
| | \$ '000 | \$ '000 | \$ '000 | \$ '000 | \$ '000 |
| TOTAL BUDGET | 14 642 | 17 302 | 19 988 | 23 406 | 27 724 |
| GOVERNMENT SOURCES | | | | | |
| EXTERNAL SOURCES | 149 | 344 | 2 064 | 3 895 | yet unknown |
| A. Salaries, Wages and Allowances | 11 559 | 12 860 | 15 150 | 17 858 | 21 404 |
| B. Subsistence and transport | 2 000 | 3 000 | 3 473 | 4 037 | 4 367 |
| C. Incidental expenses | 360 | 400 | 380 | 385 | 425 |
| D. Training, field trials and Irrigation | 600 | 867 | 748 | 854 | 1 250 |
| E. Land use planning | 25 | 25 | 41 | 50 | 75 |
| F. Farm running expenses | 18 | 30 | 49 | 57 | 63 |
| G. Buildings, furniture and Equipment | 130 | 120 | 147 | 165 | 140 |

Source: B.N. Ndimande: "Future Directions of Agritex" 1986

The budgetary increases were largely consumed by wages and salaries (reflecting both hiring and inflation), training and subsistence and transport expenditures. With a very small proportion of the budget coming from external sources, Agritex's finances can hardly be expected to grow much above the 10% mark in the next two years. The effects of this on improved and expanded extension services can thus not be over-stated. In an attempt to streamline services to suit these financial constraints, the extension programme thus has the following specific aims:

- to establish a new branch within Agritex called Management Services to provide operational policy advice to the Directorate of Agritex.
- to re-organize the Technical Services Division to provide extension field staff with the maximum possible support in those technical fields which are most important in the communal areas.
- to simplify and streamline the provincial structure of field services to increase the effectiveness to extension workers.
- to rationalize field services by (a) more systematically programming extension workers visits with farmers, supervisors and specialists; (b) providing motorized vehicles for all extension field staff including motorcycles for extension workers; and (c) providing extension field staff with appropriate housing in the field;
- to strengthen the in-service training programme for extension staff, enabling them to better meet the needs of farmers in the Communal Areas; and
- to set up pilot schemes in order to refine extension techniques and test new teaching aids, extension support services and equipment.

Manpower is not considered to be a serious constraint for Agritex in the near future, given current manpower and training programmes. Table 11 summarizes Agritex manpower situation from 1981 to 1987.

Table 11
ESTABLISHMENT AND ALLOCATION OF NEW POSTS (1981/83 - 1986/87)

| CATEGORY | JULY 81/82 | JULY 82/83 | JULY 83/84 | JULY 84/85 | JULY 85/86 | JUNE 86/87 | VACANCIES March 1987 |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------------|
| Directorate | 4 | 4 | 4 | 4 | 4 | 5 | 1 |
| Professional & Technical Staff | 390 | 390 | 390 | 412 | 421 | 442 | 46 |
| Supervisors & Extension Workers | 1 586 | 1 612 | 1 613 | 1 669 | 1 784 | 1 822 | 107 |
| Admin. & back-up staff | 498 | 498 | 499 | 539 | 544 | 1 246 | 23 |
| TOTAL ESTABLISHMENT | 2 478 | 2 504 | 2 511 | 2 624 | 2 753 | 3 515 | 177 |

Source: *B.N. Ndimande*

The main problems with manpower so far, however, have been the high turn-over of staff, averaging 14 departures a year between 1981 and 1986. This suggests that experienced staff are regularly lost by Agritex, and indeed it was found that a large proportion of technical officers have less than 3 years experience.

Having discussed the overall situation, priorities, objectives, strategies and constraints of Agritex, it is perhaps useful to briefly detail the specific role and functions of its field divisions before we discuss the field services in the study district. The aim of this division has been summarized as follows:

The division is principally concerned with the communication of effective extension messages, with sound technical content, which are thoroughly appropriate to the farmers' needs and circumstances as they vary throughout Zimbabwe, in order to raise agricultural productivity on sustained and economic lines. Additional functions include, the need for liaison and co-ordination with both government and non-governmental organisations in the local government and agricultural sector in general, as well as the provision of regulatory inspectorial and other service by ministerial decree.¹

¹ R.H. Vaughan-Evans "A General Overview of the Field Division of Agritex" 1986

The Field Services Division is organised at three levels, namely the regional, provincial and national level. The regional structure also comprises two components, the technical and field. In the technical component are Agricultural Extension Officers (A.E.O.s) who are generalists, except for one AEO specialised in conservation. The field component includes 6-8 extension workers managed by an Extension Officer. Three to seven such teams are supervised by a Senior Extension Officer (SEO). The teams communicate the extension messages, in the context of an Extension Programme Plan, while the Regional Agricultural Extension Officer (RAEO) as team leader ensures co-ordination and integration of the field and technical components of the Field Services division within a region.

Given the divisions emphasis on developing "appropriate technical extension messages", the role of Agricultural Extension Officers has become focal, allowing these officers to concentrate more on technology.

The Division has been experimentally integrating a number of extension approaches or strategies including:

- **Master Farmers Training:** where two farmers are selected from a group and trained by the Extension Worker with the intention of a resultant "ripple effect" to other farmers.
- **Group Development Areas:** this is mobilisation of people into groups and the expansion of groups to all areas. This approach in extension has the advantage of reaching a wider audience than individual visits.
- **The Farmer Extension Promotion Scheme:** In this scheme the promotion agents are more intensively trained than the Training Visit System (below). The promoters also receive a small remuneration from Government.
- **Radio Listening Groups:** Such groups are being encouraged to listen to extension programmes. Matabeleland South and Mashonaland East Provinces are piloting this extension strategy.
- **Training and Visit System:** This has improved sound extension management, good technical message delivery, participation and involvement of human resources. The T & V system trains the farmer practically and a follow-up method is adopted to see how the farmer can relate to the extension methods taught.

From the Field Division's statements, it appears that the Training and Visit System is the most preferred approach due to its flexibility, and is used in conjunction with farmers groups and farmers leaders.

The available secondary data evidence, however, does not permit us to clearly evaluate which extension approach is emphasised in practice. The issue will be further discussed in relation to the survey findings although especially developed survey instruments to detect the relative importance of different approaches utilised would have been more appropriate to answer this question. In the following we now discuss the extension services available in the study area.

Makonde Extension Services

The distribution pattern of agricultural extension services in Makonde District is outlined in Figure 2. The following features are notable. In the District there are 29 Extension Workers for a population of 15 111 farmers which works out to 1 Extension Worker to 521 farmers. (see Figure 2 and Table 9). Among the 29 Extension Workers there are 2 Female Extension Workers based in the Zvimba Communal Land. The Makonde District is well serviced by extension workers compared to the national average of 1 Extension Worker per 850 farmers. However, from table 9 it is apparent that Mupfure Communal Land, the largest in the district, with a population of 15 000 and 2 880 farmers

has 5 Extension Workers i.e. 1 Extension Worker to 576 farmers which actually still reinforces the fact that the district is well serviced compared to other areas.

Figure 2
AGRICULTURAL EXTENSION STAFF ORGANOGRAM
(MAKONDE AGRICULTURAL REGION)

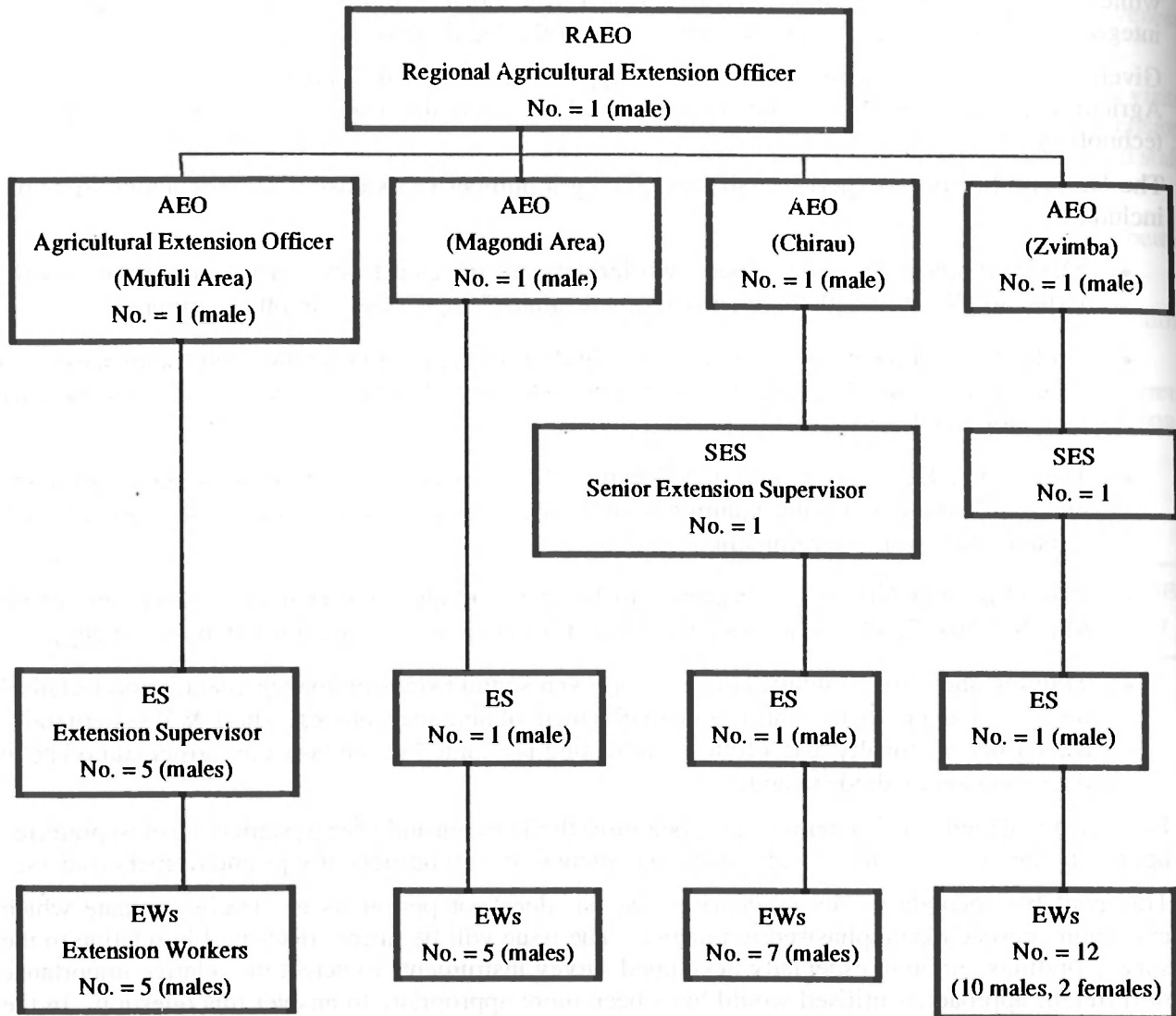


Table 12
DISTRICT POPULATION FARMER AND EXTENSION WORKERS

| | POPULATION | NUMBER OF FARMERS | AREA KM ² | NUMBER OF WORKERS |
|---------------|---------------|-------------------|-----------------------------|-------------------|
| Zvimba | 30 000 | 6 154 | 488 km ² | 13 |
| Chirau | 28 000 | 3 677 | 325 km ² | 6 |
| Mupfure | 15 000 | 2 880 | 1 000 km ² | 5 |
| Magondi | 13 000 | 2 400 | 464 km ² | 5 |
| TOTALS | 86 000 | 12 111 | 2 277 km² | 29 |

Additionally, the Small-Scale Commercial Farms (SSCF) normally located close to the communal areas within the Region, farmed by African landowners, are serviced by 9 EWs, with Chitomborwizi having 5 EWs and Zowa 4 EWs. These areas also fall under the AEOs and RAEO through the hierarchy. Altogether therefore there are 45 extension staff of which only 2 are female and seven have supervisory and administrative roles. To conclude this section we should perhaps briefly discuss Agritex's policy on extension services and women. Our interviews with headquarters extension administrators and reviews of policy documents suggest that Agritex does not have any special extension programmes to address women farmers. Women are addressed where they would feature as ordinary members of communities the EW deal with in the field. In the context of the different approaches outlined above, Agritex does not purposely discriminate against or for women in the field, in spite of the fact that women tend to be socially, economically and culturally disadvantaged.

It is only in the training of extension workers that Agritex has adopted a policy which encourages women trainees through enrolment policies and general mobilization of cadres.

It is within other ministries that specific extension programmes for rural women can be found, although Agritex through its co-ordinated functioning with such ministries indirectly contributes to women farmers' needs. The following section thus deals with extension services by other organizations in Zimbabwe. All rural extension services which impinge on women farmers are discussed.

Ministries

Ministry of Community Development and Women's Affairs (MCDWA)

The role of the MCDWA is to identify women's needs and to aim at mobilising them into income-generating project groups with the technical assistance of relevant ministries such as Agritex in agricultural production. This Ministry tends to focus specifically on women as a special group primarily because women have historically been disadvantaged in terms of asset ownership, access to financial, technical, service and educational resources, and because their basic human rights have tended to be circumscribed. A critical aspect for women in Communal Areas is the right to land, both ownership and usufruct, marketing rights and their majority status.

The MCDWA has had a specific interest in agricultural projects, some of which it has initiated and organized. These projects which vary from "home economics" types to those with more emphasis on agriculture such as gardening mainly involve women in groups, for reasons which cannot be fully discussed here. The MCDWA has facilitated the access of groups to various farm inputs, technical advice, as well as training in group organizational skills. And services provided tend to vary among groups depending on the project and needs. The MCDWA policy on income-generating projects is to have at least 60% of female group membership. The MCDWA has also mobilized for an extension staffing policy in health and community work which engages an optional number of females.

The groups are mobilised in a manner that encourages self-reliance by ensuring that members contribute at least 40% of the project cost. Such contributions tend to be in cash or labour. Property or assets are usually held by the group as a whole and limits tend to be placed on their sale. The practice in group projects so far has been that in the first year funds for groups to take off are ploughed in by donor agencies such as FAO and Agritex and the groups are encouraged through technical advice (AGRITEX) on what to crop. The Ministry through its extension staff normally will train groups on evaluation and monitoring the project which involves inventory of yields, inputs and labour time put into the project. Thereafter the groups have to acquire their own inputs while advice continues to be provided.

The MCDWA projects tend to be holistic in that they take into account the various labour consuming activities of women and children, including herding, haulage of water etc. which restrict women's agricultural performance. Emphasis on training farm women in literacy and numeracy is considered paramount for effective group production, while principles of savings and credit are being promoted. This approach has made the MCDWA projects popular with women's groups. The ministry recognises that within the household's agricultural income women spend basically all of it on the households' welfare - purchase of food and uniforms (among other things) for their children. The study area, Mashonaland West Province has 57 Community Development workers of which 13 are in Chinhoyi and service Makonde District. These workers are the key agents in promoting MCDWA projects.

The impact therefore of MCDWA projects on women farmers can be expected to at least increase their technical and organizational skills, which could be greatly enhanced depending on the linkages of MCDWA advice to other relevant extension services.

Ministry of Co-operatives (MINCOP)

The MINCOP is responsible for co-ordinating and servicing all co-operative activities in Zimbabwe. There are basically three types of co-operatives namely:

- **Pre-co-operatives:** These are unregistered groupings of more than 10 people engaged in any activity of their choice, from agricultural, commercial, industrial through to health and welfare activities, while various organizations stimulate the formation of pre-co-operatives. They have so far mainly been mobilized and organized by the MCDWA, although the MINCOP is expected to register and service qualified groups as it does other full co-operatives.
- **Marketing and Supply Co-operatives:** These are registered groups engaged mainly in marketing of inputs and outputs for members. Some of these are affiliated to churches, NGOs, private companies or are independent. The majority are engaged in agriculture and are organized under their own independent movement CACU (The Central Association of Co-operative Unions), which functions through a decentralised network based on district unions.
- **Collective Co-operatives:** These are registered producer co-operatives which own their means of production collectively and were mainly formed and developed after independence. At the moment there are over 60 agricultural collectives, some of which (40) fall under the post-independence resettlement scheme.

The MINCOP has in the past mainly provided educational services on the mechanics and principles of co-operative activity, encouraged registration and the abidance with bye-laws of the Co-operative Societies Act, as well as providing auditing services for registered co-operatives. Provincial co-operative officers provide such services, although in practice due to their small budget (approximately \$3 million/annum) they have not been able to service most existing co-operating groups.

Agricultural groups, co-operatives and collectives are beneficiaries of the MINCOP services mainly in terms of group or collective general administration and bookkeeping, while technical agricultural skills and farm management education tend to be inadequately treated.

Agritex has in the last 18 months more specifically focused their attention on imparting the above skills gap to co-operatives as discussed in the earlier section.

Ministry of Local Government, Rural and Urban Development

The ministry co-ordinates all organisations, government or non-government engaged in development activities within the districts. This means that this Ministry has to be conversant with various sectoral policies, their implementation and their implications to the communities. It is actually through this Ministry that local problems are discussed on upwards to central government.

Among other obligations the Ministry is responsible for:

- the allocation of land in the Communal Areas through the District Council which is the Land Allocation Authority besides being the Planning Authority;
- the expedition of the transportation of Agricultural Produce to the Grain Marketing Board;
- providing farmers with tractor services through the Tillage Unit;
- the support of co-operatives and other different income-generating groups;
- monitoring project impact, socio-economic benefits and general effects on the community;
- training of staff at all levels including councillors on Government policy, and village workers on the Government's rural development objectives.

The allocation of land has in some cases brought about much conflict and misunderstanding between Government and the people. For instance many "traditional" or communal farmers do not appreciate or understand why after independence people are not allowed to occupy former under-utilised or vacant commercial farms at will. The Ministry's task is to explain to the farmers Government land policy. This has proved to be an intractable task, since there is no clear-cut national policy on the size and criteria of allocation of land to individuals.

The provincial administration believes that persons who work on the land such as husband and wife, must have equal rights to that land. Therefore the Ministry believes that such equal rights to asset ownership will in fact boost female confidence and thus allow them to be involved in long-term decision-making in the household.

Such an arrangement would help divorcees and widows in the direct use of land and related decision-making since they have to assume a wide range of responsibilities that formerly rested on men.

So far the degree of co-ordination between this Ministry, Agritex and others on agricultural projects for women farmers (and farmers in general) seems to be the critical area in determining the resource base and infrastructural adequacy required to promote agricultural development. The efficacy of the co-ordination is at present highly questionable.

Ministry of Health

The provincial capital, Chinhoyi, has the Provincial Hospital which provides specialist referral services for other hospitals. In the Mashonaland West province the major causes of death are malnutrition, diarrhoea and respiratory diseases. The Ministry's office is headed by the Provincial Medical Officer who is supported by health care professionals comprising 1 provincial nutritionist and senior nutrition co-ordinator at field level and 1 nutrition co-ordinator in each district. The Village Health Workers are the "frontline" workers and out of the 746 trained (1981) for the province there are only 707 working in the province. In Makonde District 159 were trained and 152 are currently employed in the district. In each district there is a district hospital and in Makonde the district hospital is in Zvimba.

The population serviced by each clinic or health centre in the District is approximately 11 420. This includes the small-scale commercial farming areas, mines and commercial farms where in certain instances (like Banket Mine Hospital) hospitals outside the communal area do service the communal area population, 41% of which works on commercial farms. In Makonde District there are eight hospitals of which three are under the rural council, two mine hospitals and one Provincial, one District and one Mission (St Ruperts) with a total of 546 hospital beds and 6 ambulances.

Several extension programmes related to preventive health are operative. These include: family planning, maternal and child health, nutrition, tuberculosis, leprosy, sanitation and water development. It is through these programmes, promoted by village health workers that the communities are sensitized to improve the quantity and quality of food production. Community labour is also organized to build the preventive health infrastructure and to provide community support services under these programmes. Such mobilization may complement or support technical agricultural skills among women, who are the MOH's main target. How well these extension services are co-ordinated with Agritex and other ministries is a question which requires a separate research exercise.

Parastatals

There are four major parastatals involved in agricultural and related Extension Services Support in the District,

Agricultural Finance Corporation

The corporation was established by an Act of Parliament to provide loan facilities for all farming purposes in the country. The corporation places emphasis on the viability of propositions in relation to the scale of operations, the value of the security offered and the ability of the farmer to cope with the planned programme. AFC finance short-, medium- and long-term loans at rates of 13,9% per annum to borrowers up to 65 years old. Short-term loans are granted for the purchase of fertilizers, crop chemicals, labour and fuel and are payable within 18 months. Medium-term loans are provided for fencing, machinery, implements and livestock, while long-term loans are made available for capital costs such as the purchase, development and improvement of land and water resources.

The AFC loans given to farmers in the study area province, between April - December 1986 are shown in Tables 13 and 14. Loan provision and qualification, and use in the district will be analysed in the section dealing with the survey findings.

Table 13
MASHONALAND WEST PROVINCE: SHORT-TERM LOANS APRIL-DECEMBER 1986

| | Communal Sector | | Resettlement Sector | |
|-------------------------|-----------------|--------------|---------------------|-------------|
| | Loans Granted | Value \$m | Loans Granted | Value \$m |
| Individual loans | 14 478 | 7,93 | 1 173 | 0,61 |
| Group loans | 52 | 0,39 | - | - |
| Co-operative loans | 3 | 0,08 | - | - |
| Assistance Scheme loans | 3 | 2,25 | - | - |
| TOTALS | 14 536 | 10,65 | 1 173 | 0,61 |

Table 14
MASHONALAND WEST PROVINCE: MEDIUM-TERM LOANS APRIL-DECEMBER 1986

| | Communal Sector | | Resettlement Sector | |
|-------------------------|-----------------|-------------|---------------------|-------------|
| | Loans Granted | Value \$m | Loans Granted | Value \$m |
| Individual loans | 1 575 | 1,09 | 110 | 0,05 |
| Group loans | - | - | - | - |
| Co-operative loans | 1 | 0,03 | - | - |
| Assistance Scheme loans | - | - | - | - |
| TOTALS | 1 576 | 1,12 | 110 | 0,05 |

Agricultural Marketing Authority

This corporation advises the Ministry of Agriculture on the marketing and pricing of controlled agricultural products. The authority acts as the sole or residual buyer, at annually determined prices, for a wide variety of farm products. Domestic market requirements are usually given preference over export activity. The Authority operates through four Marketing Boards:

- **GRAIN MARKETING BOARD** - This board markets maize, wheat, sorghum, groundnuts, soya beans and coffee at controlled prices. In the communal areas direct producer to consumer transactions are permitted but any sales out of the communal areas must be made exclusively to the GMB. This is not always the case as middle men take advantage of transport constraints affecting the farmers. Currently there is one depot at Murombedzi growth point (in Zvimba) for the whole district under study.
- **DAIRY MARKETING BOARD** - Has exclusive rights for distribution of fresh milk in urban centres and it handles all raw milk production. Bulk milk collection schemes are currently being introduced in Communal Areas and there is a pilot depot to service Zvimba, Chirau and Chitomborwizi Small-Scale Commercial Farming area, with a resident officer at Murombedzi Growth Point to co-ordinate the board's operations with other related organisations.
- **COTTON MARKETING BOARD** - This board is responsible for the purchase of seed cotton from growers and the sale of cotton seeds to farmers. A substantial increase in cotton production in the communal lands has occurred in the last decade and a growing number of women have been registered as cotton growers in the communal areas.
- **COLD STORAGE COMMISSION** - This is the sole exporter of beef in fresh, chilled or frozen form. The commission is involved in the promotion of livestock management and production strategies in the communal areas such as grazing schemes. During drought the commission has been able to purchase the communal herd and provide adequate grazing thus arresting the depletion of the national herd.

Agricultural and Rural Development Authority

The Authority is directly tasked with the overall development of Communal Areas and has been in the forefront of spearheading research and special agricultural development projects in appropriate farming systems as per agro-ecological endowment. Several estates in the communal areas such as Sanyati, Jotsholo, Ngwezi and Antelope Mine benefit the communal farmers by allocating individual

plots under irrigation to the farmers. The Authority is involved in tsetse fly control in Magonde and Mupfure communal lands.

District Development Fund

Through its Tillage Unit the DDF hires out tractors to communal farmers for nominal fees of \$55 per hectare. This essentially is intended to help farmers who have no draught power and also those who prefer their animals to remain saleable. DDF is also involved in road construction in the district; for instance there is construction of a 10 km tarred road from Lydiate to Murombedzi Growth Point employing about 100 locals as casuals and 60 permanent staff including technicians.

It should be noted here that all these parastatals while improving access of Communal farmers to resources and services, do not have any significant schemes which provide preferential treatment to women farmers, nor do they work specifically with women farmers groups.

Non-Government Organisations

The history of NGOs in Zimbabwe dates as far back as the introduction of Christianity in this country. The concern of NGOs has always mainly been on welfare, education and religion, to the exclusion of direct agricultural production activities.

Although most religious NGOs initially were concerned with the general promotion of values, over time a few diversified into the agricultural sphere, running operational projects and programmes to relieve poverty in general and to promote the quality of life particularly of the rural folk. A few religious NGOs such as the Lutheran World Federation, World Vision and the Catholic Institute are well known for agricultural development in the rural areas of Zimbabwe. Many of these organisations are specialised in their concerns and some tend to be highly parochial in their territorial work. The Lutheran World Federation for instance was, until recently, concerned with the provision of water to rural communities. It has however, diversified into crop and livestock production and management strategies.

In the study area for example the Catholic Church has established schools and a hospital at Saint Rupert's Catholic Hospital in Magonde Communal Land, yet their involvement in promoting agricultural development is minimal.

NGOs tend to have the advantages of flexibility to reach the real poor, in a way official bodies find difficult, and their costs of administration are low. There are also numerous non-church based welfare NGOs which started as relief groups during and after the war of liberation, dealing mostly with displaced persons in Zambia, Botswana and Mozambique, such as Oxfam. These have worked on agricultural aspects to engender self-reliance among the displaced. Although NGOs have some element of being pressure groups, they tend to be more relief-oriented than developmental in the sustained long-term context. The major focus of NGOs in Zimbabwe currently is thus to assist the poor through encouraging small groups to formulate their needs, and providing a "mixture" of many small grants.

Several NGOs emphasize training as a critical component in development. The Adult Literacy Organization of Zimbabwe (ALoz) for example, as a welfare organization has been a major force in promoting adult literacy in rural areas. The ALoz programmes provide the basic literacy and numeracy to help the peasant farmers in developing economic independence, personal growth and life skills, and ability to see the root causes of their problems and therefore a drive towards their solution.

All NGOs' operations are co-ordinated in the field by the Ministry of Local Government, Rural and Urban Development. This is to ensure that the operations of the organizations are:

- Spread equitably across the country instead of concentrating in a particular area or region;
- there is no duplication of aid or funding of the same community by several organizations;
- the terms of funding are clearly understood by the recipients, whether it be a loan or grant to avoid defaulting and misuse of the assistance.

Generally most rural NGOs have a clear-cut gender preference towards women and they emphasise positive discrimination for women in their general projects and they prefer to work with groups at village and ward levels.

The above discussion clearly shows a wide extension service provided to the Communal Areas, a phenomenon which has largely grown since Zimbabwe's independence, due to appropriate policies. Thus, where local institutional, resource base factors and other accessibility factors permit, women theoretically, according to stated Government, and non-governmental policies and programmes may utilize these extension services. The question now is, to what extent, and at what level do they use these services, what kinds of services are mostly provided, which types of households utilize such services, and are these services appropriate and effective? Furthermore how do such extension services enhance or complement the development of agricultural technical knowledge, skills and practices among women farmers in Zimbabwe? Is there any co-ordinated effort to achieve this goal? To answer these questions, the following section discusses the survey findings from Makonde district and the National responses of extension administrators. As pointed out in the introduction, this discussion is limited mainly to the Agritex services.

CHAPTER FIVE

SURVEY FINDINGS

Introduction

This chapter of the report first characterizes the socio-demographic characteristics, resource patterns and, overall crop and livestock production features of the sample population. Attention is then focused on food production and nutritional activities in order to provide a framework for assessing the specific responses on extension services received and required. This is followed by a presentation of the findings on receipt and utilization of extension services, types of services, access aspects, frequency and appropriateness, group and mass media forms of extension services, gender preferences in extension services and felt extension service needs. The remaining part of this section then treats nutrition-oriented production activities among women, as a means of focusing the study on the concrete concerns to our knowledge, of women in Communal Areas. This sub-sector is also a means of exposing the existing variety of extension service directed towards women and the relationship of these to agricultural extension services. The section then concludes by discussing marketing and credit access factors which are seen as critical determinants of the utilization of extension advice and constraining factors.

Socio-Demographic Aspects

A major proportion of the 106 farmers interviewed (83%) indicated that their husbands, whether they be absentee husbands or otherwise, are regarded as heading households, while most of the 19 percent respondents who indicated they were the heads of households, included the 10 men farmers who acted as control. Since there are 17 percent of both divorced and widowed women farmers in the sample population, it is calculated that 15 percent of that population is formally headed by farm women. The majority of 82 percent are married with more than 3 children per family, although 22 percent indicated that their husbands lived away from the "farm", earning an outside income. In general terms, therefore, approximately 37 percent of women in sample are heads of their households in practice and de facto due to the absence of their husbands. Education and age are variables generally useful in determining "innovativeness", where it is expected that the younger and better-educated farmers will be more receptive to agricultural innovation. The age groups of the respondents are shown in Table 15.

Table 15
AGE GROUPS OF RESPONDENTS IN PERCENTAGE

| | | |
|---|-----------------|-------|
| 1 | Under 20 years | 0,94 |
| 2 | 21-25 years | 6,60 |
| 3 | 26-30 years | 8,49 |
| 4 | 31-35 years | 22,64 |
| 5 | 36-40 years | 11,32 |
| 6 | 40-50 years | 24,53 |
| 7 | 50 years - over | 25,47 |

While these figures represent only the age groups of the respondents they may be used to deduce the age structure of agricultural producers. The data shows those between 20-30 years of age are a small minority (15%), suggesting that urban drift is high among the young people while the aged and less productive are left in the rural areas. The table above shows that the largest group is the farmers over

50 years of age. Nonetheless, what we consider to be the most productive age group in this study can be taken from the age of 21 to 50, and grouping these age categories we come up with 73,6% which, in fact, is an approximate reflection of the female farmers engaged in agriculture in the area.

Generally, literacy in the area was quite high, with approximately 70 percent who attended school up to four (4) years of primary education. The other 30 percent said they never attended school. Reception of agricultural extension services, in terms of training and understanding cannot be seen therefore, as a major constraint, although cognisance has to be taken of the 30 percent who are illiterate.

Resource Base Characteristics

In this sub-section we discuss the resource distribution among the households sampled.

Land Ownership

The pattern of usufruct is predominantly male-dominated with 76,5 percent of the respondents saying that husbands have title to land, with only 4 percent women farmers indicating they have title to the farm land. On the hours per week assigned to both household and agricultural activities it was difficult for the respondents to allocate time for the different duties, particularly within the household for such duties as caring for children, water haulage, cooking and laundry overlap.

Nonetheless, a significant number (58) spent between 21-35 hours per week on household duties, which contrasted with 82 who said they spent between 21-35 hours per week working on agriculture. It shows, therefore, that most of the time the farmers are engaged in agricultural activities.

Crop Areas Cultivated

The land holdings under cultivation in the district varied between household and between regions. Of the total area cultivated in the district, cash cropping averaged 1,3 ha and food crops 1,2 ha. The major cash crops were maize, cotton and sunflower, while food crops were mainly maize and legumes, particularly groundnuts. The biggest cash crop plots were maximum 5,75 ha, while that of food crops was a maximum of 8 ha. Other crops including sunflower, groundnuts and a few isolated cases of tobacco cropping; none had more than 2,4 ha. The area allocated to food crops is still clearly important to the farmer, although cash cropping is now considered very important in crop production in the communal lands; this is evidenced by the average holding for this activity which is 1,3 ha compared to 1,2 ha.

As a matter of fact, maize is considered both as a food and cash crop, therefore, in some households, it is only a food crop, yet in others it is also a cash crop, thus increasing the average area in cash cropping in the sample households. Mhunga, Rapoko and Sunflower cropping was vividly apparent in Magondi and Mupfure enumeration areas. This prevalence of drought-tolerant cropping in the drier areas could be related to extension workers responding to farmers' requests on such advice as indicated by some farmers in the sample, who thought extension emphasis should be on growing drought-tolerant crops. This pattern of cropping appropriate to marginal agro-ecological regimes seems to be gaining importance in extension services provision, particularly in the communal area, although the actual extent of this importance could not be gauged adequately. The major food and cash crop in the area was 100% maize, followed by cotton as the second cash crop with 10,53% farmers indicating so. Groundnuts came third.

In general, all households have some farm equipment such as ploughs (97,6%), cultivators (72%) and hoes (97%). Implements such as harrows, scotchcarts and wheelbarrows were fairly rare, but nine of

the respondents indicated that they used tractors. This percentage of tractor-use is high when compared to the situation in most of Zimbabwe's Communal Areas, although use of tractors here does not reflect ownership since there is a tendency for tractors to be hired for ploughing from better-off farmers, who may even be outside the communal area (for example in small-scale commercial areas). Otherwise most of these communal area farmers (97%) use oxen draught-power for ploughing.

Livestock Ownership

The pattern of livestock ownership was concentrated on male farmers as was expected. A few farm women, however, owned 1-3 beasts. Table 16 shows the pattern of household livestock ownership in the sample population.

Table 16
PATTERNS OF LIVESTOCK (CATTLE) OWNERSHIP IN THE SAMPLE POPULATION

| | No. of Beasts | Farmers | % |
|--------|---------------|---------|-----|
| 1. | 1-15 | 67 | 73 |
| 2. | 16-25 | 20 | 13 |
| 3. | 26-35 | 5 | 5 |
| 4. | 36-50 | 6 | 6 |
| 5. | 51-70 | 2 | 2 |
| TOTALS | | 106 | 100 |

The number of farmers who own between 1-15 beasts is 73 percent and generally, the stocking rates in the district do not seem high, though of course this would entirely depend on the carrying capacity of the rangeland. Livestock ownership ranged from the stockless to one household which had over 70 beasts. This number should not be misunderstood to belong to a single person. In the traditional household, several members of the family, some absent, own the livestock even though they may have very little to do with its management. Among the widows, who tended to be heads of households, such livestock ownership was higher, though again the head of household responsible for the herd might actually only own the least. The importance of livestock in the communal areas covers a number of uses, manure for better cropping, draught power, meat, milk and other social uses which are possible through sale of livestock. A separate study on livestock ownership among women farmers would be recommended, as this is a very wide area which can only be mentioned briefly in this report. More details on resource ownership related to small animals and gardening are presented in the sub-section on nutrition later on. Among the farm women interviewed on the reasons why they do not own livestock, 77% cited "financial" as the reason and 7% cited "cultural" as women are disadvantaged from birth, due to traditional norms of inheritance, particularly in livestock ownership which is directly biased against them.

Food Production and Nutritional Activities

All respondents grow their own basic food at widely varying degrees of household security. In order to determine the levels of household food security from production activities, the study looked at the harvest of 1986, which was a good year in terms of rainfall. The amount of food retained for household consumption was evaluated, using grain (all types e.g. maize, sorghum, rapoko etc) and legumes (all types e.g. beans, groundnuts, black-eye peas, cowpeas etc), as reference foods, since they constitute the main food resources of the rural Zimbabwean diet together with vegetables. Tables 17 to 19 show the responses to questions on retention, adequacy and supplementation.

Table 17
CROP RETENTIONS BY THE SAMPLE POPULATION

| Bags - Retained (1 bag = 90 kg) | % Respondents Grain | No. Grain Frequency | % Respondents Legumes | No. Legume Frequency |
|------------------------------------|------------------------|------------------------|--------------------------|-------------------------|
| 1 - 5 | 12.26 | 13 | 80.19 | 85 |
| 6 - 10 | 19.81 | 21 | 14.15 | 15 |
| 11 - 15 | 27.36 | 29 | 4.72 | 5 |
| 16 - 20 | 16.04 | 17 | 0.00 | 0 |
| 21 - 25 | 11.32 | 12 | 0.94 | 1 |
| 26 - 30 | 3.77 | 4 | | |
| 31 - 35 | 6.60 | 7 | | |
| 36 - 40 | 1.89 | 2 | | |
| 41 - 45 | 0.94 | 1 | | |
| TOTAL | 100.00 | | 100.00 | |

Table 18
FOOD ADEQUACY RESPONSES

| | GRAIN | LEGUMES | VEGETABLES |
|--------------|---------------|---------------|---------------|
| Adequate | 85.58 | 24.76 | 41.18 |
| Inadequate | 14.42 | 75.24 | 58.82 |
| TOTAL | 100.00 | 100.00 | 100.00 |

Table 19
NUTRITIONAL SUPPLEMENTATION RESPONSES

| FOOD ITEM | % RESPONDENTS |
|-------------------|---------------|
| Grain | 14.71 |
| Legumes | 49.02 |
| Vegetables | 20.59 |
| General Groceries | 9.80 |
| Other | 5.88 |
| TOTAL | 100.00 |

The description of grain and legumes is given earlier in the analysis whilst vegetables refers predominantly to fresh or dry vegetables cooked as relish as the main complement of the staple which is cereal based, mostly maize (sadza/isitshwala), millet and rapoko. These vegetables generally have a high nutritive value, particularly if proper cooking and processing are followed to retain nutrients and to enhance nutrients e.g. use of fat and protein-rich peanut butter. The place of vegetables in the traditional diet should be viewed as being very important particularly because of their traditional value in the diet as well as the fact that meat protein is scarce and is consumed infrequently in most rural households.

General groceries include reference to food items such as bread, eggs and milk, and other exotic food items. Other refers to other important foods such as fish, poultry, caterpillars and mushrooms,

purchased or acquired within the community through cash or barter exchange. The areas of Chirau and Zvimba have been denuded to a large extent through popular pressure on resources so that the ecosystem has been altered significantly. Exotic foods are often imported into the area.

Grain supplementation at 15 percent should be considered as serious indeed, considering that mountains of surplus stocks were highly visible at Murombedzi Growth Point GMB Depot. The grain (mostly maize) supplements are in the form of purchased processed roller meal, produced by millers in the large centres like Harare, Bulawayo, Gweru and Mutare and sold at a cost much higher than the production costs of the bag of local meal. That grain should be at all supplemented by one fifth of the respondents is quite a calamity. New approaches are called for urgently by both the agricultural planners at national level and the extension services working with the communities. It is obvious that at 49 percent respondent supplementation of legumes, the plant protein produced is inadequate. This calls for a fresh approach to the food question in the study area since vegetable proteins are much cheaper to produce and are more easily accessible than meat proteins. At the national level, production targets should reflect the nutritional needs in specific terms.

Table 20 shows the extent of purchased grain and legume supplements, within a defined range of 0 - 27 bags of product types.

Table 20
PURCHASED SUPPLEMENTS

| No. of Bags x 50 kg | Grain Respondents % | Legume Respondents % |
|---------------------|---------------------|----------------------|
| 0 - 3 | 86.79 | 88.68 |
| 4 - 6 | 5.66 | 9.43 |
| 7 - 9 | 2.83 | 0.94 |
| 10 - 12 | 1.89 | 0.00 |
| 13 - 15 | 0.94 | 0.00 |
| 16 - 18 | 0.94 | 0.00 |
| 19 - 21 | 0.00 | 0.00 |
| 22 - 24 | 0.00 | 0.00 |
| 25 - 27 | 0.94 | 0.94 |

Respondents were also asked if they kept a garden, which was viewed as important in contributing to the household food budget, especially during the off-farm-season. Of the sample, 84% indicated they had a garden, whilst 18.45% did not have one, the predominant reason given for the latter being lack of land for a garden, and/or lack of water for the garden. Lack of labour was given as a cause by one old widow, whose adult children lived in Harare.

For those respondents with gardens, the gardens themselves are investigated to determine seasonal functionality. Table 21 gives the profile of gardening activities by months.

Table 21
GARDEN ACTIVITIES BY MONTHS

| Garden Function Time | Respondents % |
|----------------------|---------------|
| 3 - 6 months | 22.35 |
| 7 - 10 months | 40.00 |
| All year | 37.65 |
| TOTAL | 100.00 |

The figures clearly demonstrate the room for the expansion of gardening to make gardens productive throughout the year in order to alleviate the household vegetable deficit, and additionally as an occupational and economic venture.

On poultry, 94 percent of all respondents indicated they reared poultry, of the free range type (i.e. indigenous), whilst 6 percent did not keep any poultry at all. The numbers of poultry kept ranged from between 1 - 80 with ducks and other poultry e.g. turkeys (only found in 2 households) being reared infrequently. Table 22 reflects the spread of poultry production in the sample area.

The study also sought to establish whether poultry was raised for household consumption and/or for sale. Table 23 shows the responses of all the respondents in the sample, over a period of one year.

Table 22
POULTRY PRODUCTION PATTERNS IN MAKONDE

| No. of Chickens - Range | % Respondents |
|-------------------------|---------------|
| 1 - 10 | 43.40 |
| 11 - 20 | 28.30 |
| 21 - 30 | 16.98 |
| 31 - 40 | 1.89 |
| 41 - 50 | 7.55 |
| 51 - 60 | 0.00 |
| 61 - 70 | 0.94 |
| 71 - 80 | 0.94 |
| TOTAL | 100.00 |

Table 23
PATTERN OF CHICKEN SALES PER YEAR IN MAKONDE

| Range of Chickens | % Respondents Selling |
|-------------------|-----------------------|
| 1. 1 - 5 | 59.43 |
| 2. 6 - 10 | 16.98 |
| 3. 11 - 15 | 10.38 |
| 4. 16 - 20 | 0.94 |
| 5. 21 - 25 | 2.83 |
| 6. 26 - 30 | 0.94 |
| 7. 31 - 40 | 3.77 |
| 8. 41 - 85 | 0.94 |
| TOTAL | 100.00 |

It was observed chickens were usually consumed on special occasions, e.g. when visitors came or when a close relation was visiting from say, the urban centres. However, a number of the respondents within the 31 - 50 range (18.92 percent), stated that they ate chickens about 3 times each month considering that the respondents also spent some time visiting relations in the year. The figures also indicate that no respondent consumed chicken twice a week on a regular basis, throughout the year; not that if a varied nutritious diet is available, this would be important.

The study also sought to determine the extent of malnutrition in Makonde. Although no anthropometric assessments were carried out, from the pilot study it was observed that respondents

Table 24
NUMBER OF CHICKENS EATEN PER YEAR

| Range of Chickens | % Respondents Eating |
|-------------------|----------------------|
| 1 - 10 | 30.19 |
| 11 - 20 | 30.19 |
| 21 - 30 | 17.92 |
| 31 - 40 | 8.49 |
| 41 - 50 | 9.43 |
| 51 - 60 | 1.89 |
| 61 - 70 | 0.94 |
| 71 - 80 | 0.00 |
| 81 - 90 | 0.44 |
| TOTAL | 100.00 |

gave reliable answers to questions on knowledge of nutritional status, e.g. they know the signs and symptoms of a child with kwashiorkor and marasmus, and they had been in contact with health workers and nutrition education. As such at the survey stage it was decided to depend on the given responses, using sensitive questioning e.g. on child clinic attendance and records, growth chart line direction, any illness, signs and symptoms and verdict of health workers. Of the 104 respondents to the question if any of the pre-school children of the households had malnutrition symptoms, 18.27 percent said their children had had malnutrition of the undernourished sort (i.e. inadequate or lack of food), as diagnosed by the health workers, whilst 81.73 percent said they had not (See Table 24). From a public health point, the figure of 18.27 percent is considered serious, warranting appropriate action. However, it must be noted that most of the respondents answering "yes" to the malnutrition question came from the enumeration area of Mupfure and Magondi, both marginal areas in terms of agricultural ecology and in Regions III and IV. It should also be noted that the question should also have referred to a specific year e.g. 1986, so as to ensure that respondents were only considering the pre-school children in that one year, which would give a more accurate result, vis-a-vis the malnutrition rate.

Finally, on nutritional aspects and food security, the study sought to determine what the communal farmers themselves perceived to be their actual problems in agricultural production and household food sufficiency. It is interesting to note that the responses of the females and male respondents were similar, with no discernible differences, to the question on what did they consider to be the biggest problem in having enough food for the family throughout the year. Table 25 provides the reasons that either act alone or in concert to affect production and access to food primarily, and benefits accruing from surplus.

Table 25
PROBLEMS IN AGRICULTURAL PRODUCTION

| FACTORS AFFECTING PRODUCTION | RESPONDENTS ANSWERING | |
|------------------------------|-----------------------|-------|
| | YES | NO |
| Land Insufficient | 50.48 | 49.52 |
| Land Overused | 66.98 | 33.02 |
| Drought | 90.48 | 9.52 |
| Poverty | 36.79 | 63.21 |
| Access to Credit | 32.08 | 67.92 |
| Other | 34.31 | 65.69 |

If the above factors are ranked drought is seen to feature at the top of the list with 90.48 percent people citing it as a major cause. However, this may have been marginally influenced by the fact that at the time of the field study, a poor harvest in some instances was expected due to the current drought. The experience of past droughts and times of plenty have also obviously sensitized the farmers to their actual problems at any time in the contemporary period. The lack of a specific policy on drought management e.g. preservation and promotion to drought tolerant indigenous varieties with genetic diversity to do well under most conditions without commercial inputs, perhaps needs articulation in the context of the present Agritex approach, which is, to promote high yielding varieties which need inputs e.g. commercially developed seeds, fertilizers and pesticides, all of which cost much money every year. This issue of drought also relates to aspects of the provision of water systems to enable farmers to produce even in drought years and to diversify production e.g. expansion of horticultural activities to sustainable levels and small production animals. The people in general, as discerned through extra questioning in the field, appeared to prefer sustained institutional support to ensure their productivity improved, rather than drought relief support.

The issue of overused land is highly significant at 67 percent of respondents and this hinges on political solutions. It is also related to the aspect of dependency on commercial inputs that cost money, and on access to credit in order to enable the farmers' productivity to increase. Yet on the credit question, many respondents fear indebtedness and financial ruin, some from past experience, that many are unable to utilize the AFC services, even if they may qualify. Insufficient land was found to be the call for most female respondents who felt that the land tenure system in favour of males militated against their productivity and control of resources. With household food sufficiency competing with household economic needs, e.g. money for clothing, school fees, transport and to purchase food in times of scarcity, 37 percent of respondents, predominantly in Mupfure and Magondi felt that their households were subsisting on the edges of poverty. Other reasons cited of significance are: lack of money to buy essential foods for supplementation, lack of market outlets and foods imported from other areas (Mupfure), since this area suffers chronic seasonal food shortages.

We turn to the discussion of agricultural extension services provision in the study area.

Information related to Extension Work

Farm Advice Sources

The responses to the question concerning sources of farm advice are presented in Table 26.

Table 26
PATTERNS OF FARM ADVICE SOURCES

| SOURCE | PERCENTAGE |
|-----------------------|------------|
| from husband | 1.90 |
| from extension worker | 87.62 |
| from neighbour | 0.95 |
| from other | 9.52 |

These responses clearly indicate that the majority, (88 percent) of survey population got their extension advice from Agritex extension workers. It is of interest to note that only approximately 2 percent of the 90 women interviewed got advice from their husbands. This indicates that most women are directly in contact with extension staff, or that both husband and wife are in touch with an extension worker. The other reason for the high percentage of extension workers to women farmers is that in the survey population a noticeable number 22 percent of husbands were absent, working away in town.

Agricultural advice normally needed by the farmers was of course varied with 42 percent showing they needed advice on land preparation prior to cropping. Land preparation included advice on winter ploughing, ripping and generally how to get fields ready for better yields. The use of agro-chemicals showed that 70 percent of the farmers needed instruction and training in this aspect. This innovation undoubtedly needs thorough training as there are always new chemicals introduced to farmers who may not be quite numerate and literate enough to understand the labelled instructions.

With regard to livestock management the survey indicates that 41 percent needed this advice. This response is not surprising as livestock management is traditionally regarded as a male job. It is however necessary that extension advice in livestock management should emphasise that women, as the true resident farmers, should be trained in this aspect. In poultry production and management 60% indicated they did not need this advice perhaps because the poultry in communal areas have a free range. However, it would have been expected that women farmers would have shown more interest in poultry management as chicken rearing is carried out within the homestead, and 97% of the interviewed 103 farmers have chickens with 94% owning between 1 and 30 chickens.

With regard to access to agricultural advice, surprisingly, 60% said that the advice they needed was not forthcoming from the extension worker. This seems to contradict the response mentioned earlier on that 88 percent of the farmers got their advice through the extension worker. However, this is clarified by responses to question 28 which shows that generally in the district emphasis focuses on land management and high yields with 91% of the farmers indicating so. Therefore the 60% who said they did not get the advice they needed would have been also interested in livestock management advice. Nonetheless, most farmers, 61%, showed that they received agricultural advice two months prior to the survey and 59% said they got advice from the extension worker 10 times a year with 9,5 percent saying they had never been given advice by extension workers.

During the dry season 56 percent of the farmers indicated they would like the extension workers to visit them more than once a month and only 7,55 percent said they did not require the services of extension workers. This contrasts with the wet season farmers' needs for extension advice, where 95 percent needed advice more than once a month and none said they did not require extension advice during this period.

Women's Groups Participation and Extension Targets

The Ministries of Community Development and Women's Affairs and Co-operatives are in the forefront of organising both pre-co-operatives and co-operatives in the district. (See also the sub-section on nutrition for further details). Of the farmers interviewed 62,26 percent belonged to some group which we categorised into Home Economics and Agricultural groups. The Home Economics groups seem to be most popular in the district with 49,5 percent of those interviewed being members and 11,5 percent being members of agricultural groups. However, on helpfulness of the home economics groups in providing agricultural information, 28,3 percent were on the affirmative while 71,7 percent said the groups were not helpful in the provision of agricultural information. This implies that groups involved in home economics are not visited by extension staff. It would be prudent for the extension workers to take advantage and frequently visit these groups to impart agricultural advice ranging from poultry production, vegetable management and general crop production. Furthermore, the extension workers should be encouraged to visit all farmers as a significant number of those interviewed 30,5 percent indicated that by their observation extension staff visited the better off master and elite farmers as shown in Table 27.

Table 27
DISTRIBUTION OF TARGETS OF EXTENSION WORKER VISITS (in percent)
(RESPONDENT OBSERVATIONS)

| ALL FARMERS | MASTER FARMERS | ELITE FARMERS | OTHERS |
|-------------|----------------|---------------|--------|
| 50,48 | 20,00 | 10,48 | 19,05 |

In Table 27 last column "other" represents rural social categories such as teachers, businessmen etc. who the farmers interviewed (19 percent) thought or observed that they got significant extension time. However, among interviewed farmers, 93 percent confirmed that group meetings are held by the extension worker and 70,5 percent attend the meetings. In other words while Agritex does organize group meetings as an approach, its personnel does not utilize existing farmer group networks adequately, and there is an overall feeling that better off farmers receive more advice.

It is of interest to note the percentage and the reasons given for non-attendance at group meetings organized by Agritex (see Table 28).

Table 28
GROUP MEETINGS NON-ATTENDANCE REASONS (in percent)

| TIME CONSTRAINT | HERDING CATTLE | HUSBAND ALWAYS | OTHER | N/A |
|-----------------|----------------|----------------|-------|-------|
| 3,77 | 8,49 | 18,87 | 5,66 | 63,21 |

From the above Table 28 is clear that a significant percentage of women, 19 percent, do not attend these meetings as only husbands go and from an earlier mentioned observation only 2 percent of women got advice from their husbands. This fact reinforces the point that extension staff should increase their extension effort to women, particularly those in groups which would be more receptive and less time consuming to the extension worker. The 63.21 percent refers, mainly, to those who attend the meetings.

Herding cattle is also another variable which is a constraint to agricultural production particularly to women farmers. It is hoped that with the proposed communal area replanning, paddocking livestock will increase the time for agricultural activities. However, it would be proper for Agritex, the Cold Storage Commission etc. to start encouraging grazing schemes in the district.

Group agricultural meetings are held frequently as mentioned above. In the study area only 24,5 percent of the interviewees had their meetings either at a school or training centre compared to 62,2 percent who held their meetings "under a tree". Obviously there is a great need for building more training centres which would encourage attendance even when it is raining or cold as these meeting places are within walking distance and transport costs are not incurred.

Table 29
ATTENDANCE STATISTICS (in percent)

| ATTENDED BY ONESELF/WOMEN | ATTENDED WITH HUSBAND | ONLY HUSBAND ATTENDS | NO FAMILY MEMBER ATTENDS | OTHER |
|---------------------------|-----------------------|----------------------|--------------------------|-------|
| 28,30 | 21,70 | 15,09 | 11,32 | 23,58 |

From Table 29 agricultural field days attendance seem to be more popular with both women and male farmers. It was evident on 4 occasions when the research team attended that field days are regarded, over and above the agricultural extension training, as social occasions where food and tea is served and at times with school-children participating in drama and song. Women seemed to be in the majority

in all the field days attended. A minority of farmers, 11 percent, do not attend for several reasons, mainly herding cattle and household duties. It was interesting that in 2 polygamous households, only the senior wives attended and later after the field day would call the junior wives and inform them of what advice they got from the extension workers.

Appropriateness/Timeliness of Extension

The question whether appropriate and timely agricultural advice was equally available to both men and women produced the following responses: 84 percent thought that there was equal access to appropriate and timely extension advice, whilst 16 percent did not agree with this.

Table 30 reflects the extent of the responses and the reasons why the situation was indicated by the figures aforementioned.

Table 30
REASONS FOR NON-ATTENDANCE

| REASON | PERCENTAGE % |
|-----------------------------|---------------|
| Cultural Constraints | 6.86 |
| Lack of Access to Extension | 6.86 |
| Other | 4.97 |
| Not Applicable | 81.39 |
| TOTAL | 100.00 |

The 81 percent "Not Applicable" responses relate to those respondents who are happy with the timeliness and appropriateness of extension advice to both sexes, whilst 7 percent of respondents felt that cultural factors hinder women from the access to extension advice. The 7 percent respondents who gave lack of access to extension advice as the reason why there is untimely and inappropriate extension advice, pinpointed the fact that even if an extension worker was present in the area, the visits and advice they provided were infrequent and in some cases never provided at all. On how equal access to agricultural information could be achieved, table 31 reflects the quantities of the responses by category.

Table 31
STRATEGIES TO EQUAL ACCESS TO EXTENSION INFORMATION

| NUMBER | CHANNEL FOR IMPROVING ACCESS TO AGRICULTURAL INFORMATION | PERCENTAGE |
|--------|--|------------|
| 1 | Conscientizing men | 10.38 |
| 2 | Conscientizing women | 3.77 |
| 3 | Discouraging polygamy | 7.55 |
| 4 | Other | 8.49 |
| 5 | Not applicable | 69.81 |

Clearly the 69.81 percent of people responding 'not applicable' relates to questions No. 45 and No. 46, the respondents who felt that timely and appropriate information was provided for both sexes. It is interesting to note that on the other hand 10.38 percent of the respondents, a very significant proportion of those who felt extension services are unequally provided strongly, felt that men should

be conscientized in order to emancipate them from oppressive relations with their womenfolk, if women were to participate freely and fully in the access and utilization of extension information for better productivity. Women themselves felt that it is men who needed conscientizing, whilst men predominantly felt that the women themselves needed conscientizing, 3.77 percent of the respondents attested to this. It was perceived predominantly by the male and female respondents that women were at times not keen to participate in agricultural extension exchanges as they tended to prefer activities that relate to their female reproductive role.

A women's rights activist Ms. J. Ngwenya addressing a seminar in May 1987 in Harare in a debate on inheritance and land rights for women stated:

'Because of the powerful indoctrination of the young, women are taught that they are inferior to men from an early age and so grow up accepting the domination of men in society.'¹

Discouraging polygamy was given as the solution by 7.55 percent of the respondents. Clearly this indicates the dissatisfaction by women with polygamy, a traditional institution which may well have served its purpose and is now out of step with the present momentum of the new socio-economic development facing both urban and rural communities. Polygamy is perceived by the women as the source of conflict at household level, in production and social and economic relations. In Chirau one master farmer told the researchers that in the past two years 18 women were known to have committed suicide by drinking a pesticide called "Rogor" in disappointment, hurt and/or protest at having the monies accrued from their labour spent by their husbands to marry additional wives or spent on beer-drinking. According to this master farmer's wife the fact that hers is a monogamous marriage spells many positive things for her, such as, her position is secure, she can put her own points of view respectfully to her husband, even if they are contradictory to his, without fear of being "discarded" or prejudiced against in favour of other wives. Agricultural resources and economic benefits are such that they benefit her family primarily, and she is in her own right able to make her own savings from her labour. She contends that she has access to extension advice because her husband views her as his sole partner who must participate in agricultural information exchange so that both their productivity can be enhanced for the common welfare of their family.

Extension Services and the Mass Media

Since Agritex beams regular radio programmes on various topics aimed at the rural farmer primarily and since it is commonly believed that the radio is the only component of the mass media system with the best population coverage, the study included questions that examined this coverage in order to evaluate the impact it had on the small farmer vis-a-vis agricultural extension services support. Of the 104 respondents to this question, 37.50 percent had access to the radio (i.e. either owned one or listened to relatives', neighbours') and of these 34 percent found the programmes educative, informative and useful, whilst 62.50 respondents had no access whatsoever to a radio generally, although two respondents said that although they had a radio they never listened specifically to the Agritex programmes, as they generally were busy with household chores. Of 103 respondents to this enquiry, 66 percent felt that they did not think the radio programmes worthwhile since they either had no access to a radio, to the equipment and chemicals advised in the programmes and could not find time to tune in as the work budget was tight. These figures indicate a favourable trend in the area that requires an expanded population coverage by radio for development information, in order to make the type of service appropriate and usable. On how the radio programmes were useful, Table 32 shows the general responses as categorized.

¹ *Sunday Mail*, 31 May 1987.

Table 32
USEFULNESS OF RADIO PROGRAMMES

| CATEGORIES | PERCENTAGE |
|----------------------|---------------|
| Soil Improvement | 10.38 |
| Crop Improvement | 23.58 |
| Livestock Management | 1.89 |
| Poultry | 3.77 |
| Not Applicable | 60.38 |
| TOTAL | 100.00 |

The information under crop improvement included aspects like agro-chemical usage, e.g. pesticides and hybridization and under soil improvement, aspects like agro-chemical, e.g. fertilizers, composting, and proper tillage came in. A clear distinction had to be made on agro-chemicals as they affected different aspects of the production cycle. In this instance, agro-chemicals that affect soil unimprovement and those that affect crop improvement were treated separately.

Gender Preferences in Extension Support

From preliminary discussions with the RAEO, it was known that the study area had two female extension workers, both of them in the Zvimba enumeration area. The argument was that their placement in this area was because of better facilities than in the other areas and also that being young, single graduates, the area provided a better social environment for them. Generally, the population sampled in Makonde had no marked and particular preference for a male or female service provider as they put forward that gender was not an important consideration and that the workers all received the same training and education, and had the same expertise and knowledge, even if in most areas under enumeration the communities had never seen or worked with a female extension worker.

Strangely, it would appear that there is little perceived inherent gender-based bias by the respondents in extension services, the emphasis being the need for the service. Further research would be required to understand why this community has such a positive non-discriminatory acceptance of workers of any sex type. Although not empirically validated in our context, to our knowledge political leaders have been known to be the important trend-setters.

The present data shows that while only 14.24 percent of the respondents were serviced by a female extension worker, only 34 percent preferred a female worker and 15.09 percent preferred a male worker. The rest (50 percent) were not particular. Reasons for preferring female extension workers were:

- no communication barriers would hinder their acquisition of knowledge and training, since, according to one respondent, "women understand each other better. We are not shy with other women, and we can discuss everything freely".
- socio-cultural factors that prevent females seeking advice at any time, when husbands are away at work or even living at home, would not work against access to the service provided. If the worker was female communication and access would improve quantitatively and qualitatively (see Table 33 below):

Table 33
GENDER PREFERENCE TO ADVICE

| REASON | PERCENTAGE |
|--|---------------|
| Better communication with Female Extension Workers | 29.52 |
| Better communication with Male Extension Workers | 18.10 |
| Communication same | 41.90 |
| Other | 10.48 |
| TOTAL | 100.00 |

Felt Extension Needs and Suggestions

On how they felt extension workers could help them more effectively, the respondents, both female and male, stated that they needed general extension support throughout the whole production cycle. Female respondents predominantly needed more support and information on crop production, and to a much lesser extent livestock management, perhaps because livestock management was traditionally a male's occupation (see table 34).

Table 34
FARM WOMEN'S SERVICES

| TYPE OF SERVICE NEEDED BY WOMEN | PERCENTAGE REQUESTING |
|---------------------------------|-----------------------|
| Land Preparation | 18.79 |
| Crop Production | 24.78 |
| Livestock and Management | 1.71 |
| Poultry | 14.52 |
| Other | 30.76 |
| TOTAL | 90.00 |

Nutrition Extension Activities

Zimbabwe's agricultural policy so far has tended to encourage the expansion and diversification of crops in the rural sector. Soya beans and sunflowers referred to in the production targets are food crops that the rural population cannot process for food locally at this stage. They only use their processed oils in the form of cooking oil and margarine, if they can afford to buy them, and very few can actually manage to do that on a regular basis. Consequently, the production of such exotic crops, and the targeted expansion of food crops such as maize and groundnuts, and small animal development plans, is aimed at generating cash which usually creates a needs/finance gap when these products are commoditized.

Hungry people cannot eat that which is exported. Nor are they likely to eat from export earnings or benefit from the so-called development achieved through these export earnings. People will escape from hunger only when policies are pursued that allow them to grow food and to eat the food they grow.¹

In order to determine whether policy is aiming at a balance between quantitative and qualitative factors, in particular peasant agricultural production, the questions on self-sufficiency from a nutritional standpoint should be addressed.

¹ A. Buchanan, *Food Poverty and Power*, Lappe and Collins, London, 1982. p. 91.

One of the assumptions on which nutrition education is founded is that the recipient of the education is expected to adapt agricultural production and food utilization to suit nutritional needs. As such, globally nutrition education is viewed as an important tool in combating malnutrition. Of special interest in the context of economic development is the potential deleterious effects of increasing commercial advertising and publicity from other sources e.g. pricing policy and cash cropping, by changing the nature of the food supply towards more costly, processed and less familiar foodstuffs. Nutrition education can be employed to halt such a trend but its success is highly contingent on an effective dialogue with policy.

Of the respondents in the study, 78 percent stated they received nutrition education, whilst 22 percent said they did not receive any type of such education. Table 35 reflects the extent of the community servicing for nutrition education by different categories of extension workers functioning at the grassroots level in those areas.

Table 35
NUTRITION EXTENSION AGENTS

| TYPE OF EXTENSION WORKER | RESPONSIBLE MINISTRY/ BODY | % RESPONDENTS COVERAGE |
|--|--|---------------------------|
| Local Government Promotion Officer (LGPO) | Local Government, Urban and Rural Development | 2.35 |
| Health Assistant (HA) | Health | 31.76 |
| Village Health Worker (VHW) | Health | 36.47 |
| Community Development Worker (CDW) | Community Development and Women's Affairs | 2.35 |
| Nutrition Co-ordinator (NC) | NGOs and Churches | 3.53 |
| Agricultural Extension Worker (AEW) | Agriculture and Lands | 2.35 |

Whilst nutrition education is predominantly 89 percent provided by the Ministry of Health through their various cadres, VHWs and HAs are clearly having the best contact with the local population. The NGOs and Churches are also contributing towards this important service at 3.5 percent coverage, and this is one area where they can step up their work in consultation with relevant government departments such as Agritex and the Ministry of Health.

Table 36 indicates the content of nutrition education received by respondents both male and female. Groundnuts were significantly cited as a specific example of a nutritious food whilst under the other column, clean drinking water and sanitation were the most frequently cited aspects of the comprehensive nutrition education. This is certainly in agreement with the stated policy and approach of comprehensive and integrated Primary Health Care as presently applied by the Ministry of Health. It may also be pertinent to note that 4 percent of respondents did not receive nutrition education of any kind, and these were predominantly in the remote area of Mupfure, where lack of extension worker presence and strong institutional support was self-evident.

Table 36
TYPES OF NUTRITIONAL EDUCATION

| COMPONENT | % TOTAL RESPONDENTS |
|---------------|---------------------|
| Balanced diet | 78.10 |
| Immunization | 3.81 |
| Other | 14.29 |
| None | 3.81 |

The following sub-section now discussed market and credit findings in order to grasp some of the key constraints to agricultural production in Communal Areas, and this influence on innovation adoption.

Extension Related Constraining Factors

The questions on marketing and credit information had not been included in the initial FAO questionnaire. However, the research team felt that in the final analysis the agricultural income and its distribution among household members was of crucial importance to the survey. One aspect of conflicts on the income distribution which surfaced was that about eighteen (18) women farmers had committed suicide in the district, either because the husbands, whose names were on the Grain Marketing Board's farmers' cards, had spent agricultural income recklessly (generally on beer) or spent it as dowry for another wife. Such disturbing occurrences can only be viewed against which partner contributes more agricultural labour within the household and who determines the expenditure of the household income, how and why. It is with these views and questions that we regarded both marketing and credit as intrinsic to the whole questionnaire.

Generally, in most traditional societies, most assets are usually in the name of the husband, whether he be a farmer or an absentee husband. The women who may be the major contributors to farm labour are usually relegated to the "Farmer's Wife" and have very little if any long-term decisions to make on the farm. For instance, in Table 37, it is apparent that 35 percent of the female respondents said the GMB card was in their husbands' name, 36 percent of the women have their own cards.

Table 37
NAME OF GMB REGISTRANT

| HOLDER | PERCENTAGE |
|-------------------|------------|
| Wife/Wives | 36 |
| Husband | 35 |
| Each has own card | 6 |
| Other | 23 |

Owning the GMB card is very important as the cheque for the sold produce comes under the card holders' name, who will have an upper hand in decision-making as shown by the 20,5 percent males who decide on what to sell and retain in Question 76. Thus the majority of women who hold buying cards are also in fact those from female-headed households. In Question 76, it is interesting to analyse sale and retention decision-making at household level. While of those interviewed, 20,5 percent said that such decisions are made by husbands, 50 percent said that the decisions are made by themselves. Because of the household food requirement, traditionally women have been more involved in deciding what to cook for both the husband and children, therefore, women are more influential in deciding what to retain, hence the 53 percent of "oneself" response on who decides what to sell or retain. Such decisions on retention should, however, not be confused with those for sale. In fact, the question should have been divided into two, a separate question on sales decision and retention decision. Women can make short-term decisions on what to retain, but the long-term decisions on who decides what to sell are normally a male domain in most societies.

This final section of the questionnaire dealt with credit accessibility to women farmers in particular. The responses to the question "Do you have access to credit?" are summarised below in Table 38:

67. How long does your garden function?

1. 3-6 months
2. 7-10 months
3. All year

68. Do you have any poultry?

1. Yes
2. No

69. How many?

- _____ chickens
_____ ducks
_____ other

70. On the average, how many do you sell per year? _____

71. On the average, how many do you eat per year? _____

72. Have any of your children had malnutrition symptoms during their pre-school years?

1. Yes
2. No

73. How many cases? _____

74. What do you consider to be your biggest problem in having enough food for the family throughout the year? (Start with most serious)

- (a) _____
(b) _____
(c) _____

MARKETING INFORMATION:

75. Under whose name is the GMB card?

1. wife/wives
2. husband
3. each has own card
4. yourself
5. other

76. Who decides on what to sell or retain?

1. husband
2. wife
3. both
4. yourself

77. Who determines the expenditure of the agricultural income?

1. husband
2. wife
3. both
4. yourself

78. Are there any conflicts arising from this?

1. Yes
2. No

79. If yes, elaborate: _____

CREDIT INFORMATION

80. Do you have access to credit?

1. short-term
2. medium-term
3. long-term
4. no

81. If no, why is this so? _____

82. What is your credit given for?

1. fertilizer
2. seed (specify)
3. both fertilizer and seed
4. other (specify)

83. From whom do you get credit?

1. A.F.C.
2. NGO (specify)
3. F.A.O.
4. Other (specify)

84. What problems do you face on repayment of credit?

Appendix IV

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

P O BOX 3730

HARARE

TELEPHONE: 723545/706032/ 793532

TELEX: 2603 FAO

TERMS OF REFERENCE

The Agricultural Extension Service and Its Working Relationship With Rural Women Engaged in Agricultural Production

An author's contract to carry out a study and write a report on "The Effectiveness of the Agricultural Extension Service in Reaching Rural Women with Timely and Appropriate Agricultural Information".

Under the general guidance of the FAO Representative and in close co-operation with the Ministry of Lands, Agriculture and Rural Resettlement, the author will carry out the following activities:

1. Undertake and complete an indicative study on the effectiveness of the Agricultural Extension service in reaching rural women with timely and appropriate information.
2. Take into account the level and sources of information available locally and adapt an appropriate research methodology. This should include the identification of "key respondents" who may provide basic data for the study. At national level, key respondents and data may be located in key institutions such as Extension Departments (and associated technical, field and monitoring and evaluation branches); other ministries (especially those concerned with extending agriculture-related advice to rural women); statistical offices; women's bureaux etc. At local level key respondents and data may be located at provincial, regional or village level representatives of the above institutions, or elsewhere as appropriate.
3. The methodology should make use of a flexible interview approach, for example through the use of a "checklist of key indicators". Using the questionnaires provided as the basic core, the author should design and develop a simple and appropriate interview schedule or checklist of indicators for three groups of people;
 - (a) Rural women involved in agricultural production, with some indication of their representativeness;
 - (b) Village level extension workers, with some indication of their representativeness;
 - (c) District and national level extension administrators and supervisors, with some indication of their representativeness.
4. Conduct an appropriate number of interviews with people especially "key respondents" in each of the above groups. People should be selected from several areas based on the criterion of representativeness of a range of more or less typical conditions in the rural areas. These typical conditions should be a variety of natural conditions (i.e. areas of low, medium or high potential for agriculture), as well as a variety of socio-economic conditions (from little or no cash income areas to areas of regular cash incomes etc). The researcher will indicate how and why the areas for interview were chosen, with some account of their national representativeness.
5. If appropriate, the researcher may choose one main area as a case study if it includes a reasonable variety of natural and socio-economic conditions. The researcher will account for the representativeness of the area selected.

6. It is expected that some of these interviews can be conducted in group sessions. Indeed, for group (a) [rural women], most discussions may be held among groups of women which may offer the opportunity for rural women to express themselves more freely. Where interviews are held with groups, a brief description of the group, its activities, structure and numbers of those present is required.
7. Analyse the data gathered from the field and from a review of information and reference material available from local sources.
8. Report the findings of the study in a double-spaced type written report that does not exceed 40 pages. The report shall:
 - (a) Concisely set forth a brief historical sketch of the agricultural extension service.
 - (b) Discuss the current priorities and concerns of extension service officials in terms of reaching rural women.
 - (c) Discuss the response of rural women to the impact of the extension service and its ability to provide timely and appropriate agricultural information.
 - (d) Present an analysis of the effectiveness of the agricultural extension service in reaching rural women with timely and appropriate information.
 - (e) Include the author's conclusions and recommendations of how the extension service should continue or improve its performance in terms of reaching rural women.
 - (f) Follow the attached outline which is provided for the purpose of helping to organise the information in a standard order of presentation.

Table 38
PATTERNS OF ACCESS TO CREDIT

| TYPE OF CREDIT | PERCENTAGE |
|----------------|------------|
| Short-term | 38 |
| Medium-term | 2 |
| Long-term | 2 |
| No Credit | 58 |

Of the 106 farmers interviewed on this question it is clear that the majority, 58 percent, did not have any credit whatsoever and 38 percent had short-term credit and only 4 percent of the interviewed farmers had medium- and long-term credit. The Makonde district is, therefore, not well provided with credit as shown by only 41,5 percent receiving this facility, of which 34 percent of the recipients got fertilizer as a short-term loan. Surprisingly, there was no farmer interviewed who got any credit for seed though 3 percent got credit for both fertiliser and seed. Of those who received credit, 38 percent were provided by the AFC and 3 percent by some NGO. AFC has, since independence, made inroads into helping communal farmers with credit.

The communal farmers interviewed showed that 33 percent were too poor to risk credit. This aversion to credit is characteristic of peasant farmers who suspect that applying for credit is in fact a "debt trap" which they can do without. This fact calls for extension advice and training for farmers to appreciate that credit can in fact help increase production if wisely used. There were 5,7 percent of farmers who indicated that they were ineligible for credit and in this group some had defaulted in credit repayment and others were either above the stated 65 years of age or considered themselves credit-unworthy because of their state of poverty.

The final question (84) asks the problems faced by farmers in credit repayment. Of the 103 farmers interviewed, 24 of them cited drought as a major constraint in repayment and 17 avoided credit deliberately either because they regarded themselves too poor or their knowledge of credit use and repayment was rather narrow. Drought and other natural calamities are basically what the peasant farmer is afraid of in taking credit. At the time of this report (1987) the study area had been hit by a severe drought and the Mashonaland West province had to be supplied with drought relief, as witness, the Provincial Administrator's statement:

More than 76 000 people will need drought relief in the province ... each district has the following numbers of people in need of relief : Kadoma - 35 000; Makonde - 12 000; Hurungwe - 10 000; Chegutu - 6 000.

The most seriously affected area in the whole province was the Makonde and Mupfure communal areas in the study district of this report. Credit aversion by the farmers can, therefore, be seen in the context of genuine fear caused by the unpredictability of natural calamities, especially drought which can have a devastating effect on crop/livestock production as is the case indicated above. Credit provision has, therefore, to take into account such possible drawbacks and offer grace periods in credit repayment.

In the next section we need to summarize the findings of the female farmers survey before we discuss the findings related to the surveys of extension workers and administrators.

CHAPTER SIX

SURVEY FINDINGS SUMMARY, EXTENSION OFFICIALS' VIEWS AND CONCLUSIONS

In this section we first collate the findings from the women farmers survey, relating the various findings to the central task of assessing the agricultural extension services in the study area. This is then followed by a presentation of the detailed findings on the character of extension workers, their activities and opinions, and a discussion of the presentations by senior agricultural extension administration officials, and finally a discussion of agricultural extension training in Zimbabwe. The section concludes with an analysis of all these aspects, in relation also to related policies and extension services provided outside Agritex.

Summary of Female Farmer Survey

The female farmer sample is characterized by a relatively low level of male labour migrancy compared to other districts in Zimbabwe, with only 22% of the households with migrant husbands and receiving incomes, although the proportion (37%) of female-headed households is close to the national average, being augmented in this district by the relatively high levels of divorce and widowhood. The age structure, as in the rest of the country has only 15% between 20 and 30 years of age, and the district has a comparatively high level of literacy at 70%.

Regarding resource patterns, males dominate land rights, while a large proportion of female labour (72%) is devoted to farming. Cropped hectares hover around 3 hectares, not very different from other districts due to high population densities and poor land quality in two of the Communal Areas under study.

Cropped hectareage is equally divided between food and cash crops, although a large part of the latter category includes maize, thus suggesting that a minimum of 60% of cropped hectareage is devoted to household food. The drier Communal Areas grow relatively high proportions of drought resistant grains compared to most districts in the Mashonaland provinces, while up to 26% of the population own less than 5 cattle. Most households use oxen draught power as compared to 9% using tractors, which suggests this district is relatively well off in tillage resources compared to other regions.

On food aspects, up to 60% retain less than 15 bags of grain (1,350kgs), while 24% retain more than 20 bags and 26% retain less than 20 bags. 85% of the households retain less than five bags of legumes and another five of vegetables. This evidence together with the food purchasing and food supplementation data suggests a high level of Communal Area food commoditification, much above the average districts of Zimbabwe. A large proportion (77%) garden for more than 6 months, while up to 60% have less than 20 chickens at a time, with most (60%) eating less than 20 chickens in a year. Local food production based on food security is thus poor or delicately balanced, with high dependence on external supplements. Commoditization of food and cash crop production are thus critical features of these Communal Areas, and their stable balancing in the long term, given suggested production problems, such as land and drought constraints, is thus an important policy and planning factor for the district.

The above findings suggest that extension service agencies are faced with a well literate, land short, very small predominantly grain crop-producing community which is highly commercialized in production but delicately dependent on external food supply supplementation, and is regularly drought prone. Actual and de facto heads of households are not extremely high, but are significant in size to

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¹ *The Herald*, Zimbabwe Newspapers, Harare, 1st June 1987, p.3.

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The above findings suggest that extension service agencies are faced with a well literate, land short, very small predominantly grain crop-producing community which is highly commercialized in production but delicately dependent on external food supply supplementation, and is regularly drought prone. Actual and de facto heads of households are not extremely high, but are significant in size to

require specific attention by extension agencies, as well as by Government suppliers of credit and marketing opportunities.

Regarding agricultural extension services an outstanding majority (88%) rely on Agritex sources whose services they suggest do not need to be provided necessarily by women or men. It is suggested, however, that more frequent advice is needed (at least twice a month) and, concentrated more on agro-chemical utilization, poultry and land preparation, indicating the need also to shift the emphasis in the content of the advice delivered. The respondents feel access to Agritex services by gender is relatively equal, although there is a definite bias towards elitist farmers. Field days as an agricultural extension media are abundantly popular and felt to be useful, while radio is not accessible or felt to be particularly relevant in content.

Agritex services, on the one hand, are clearly not directed at existing women's group organizations, of which a very large proportion (60%) of the women are members, and yet these groups are not found to receive valuable agricultural advice. On the other hand, while Agritex is seen to use the group meeting approach to a certain reasonable extent, these are dominated by men. The women farmers feel excluded in one way or the other, and suggest that males in particular and the community in general need to be conscientized further on the role of women in agricultural extension services in order to improve their access to such group services.

Extension activities are mostly carried out using rather rudimentary infrastructure or none at all, and are not particularly out of the physical reach (or access) of female farmers. Suggested improvements beyond those implicit in the above include qualitative improvements to crop production advice and small livestock production. Within this, advice on household food security strategies is critical if Agritex is to have credence in the long run given the frequency of drought risks and declining real producer prices at the farmgate.

Clearly also, while a variety of extension agencies are involved, their nutrition nexus and, in terms of the women's groups, methodology and local community felt needs leave a lot to be desired.

We now turn to a review of the views of extension agencies themselves.

Agricultural Extension Workers' Survey

Socio-Demographic Aspects

The creation, maintenance and effective use of agricultural extension services is an ingredient of every successful case of rural development. In order to maintain confidence among the "front line" Agricultural Extension Workers, it is important to understand their mode of operation, constraints and aspirations. The questionnaire for the extension workers sought to analyse and appraise the difficulties that the extension workers might have at field level. Out of the 29 Agricultural Extension Workers in the District, 16 were given the questionnaire to complete, and this included 2 female Extension Workers. The first part of the questionnaire deals with personal information of the Extension Workers (EWs).

Of the 16 extension workers in the survey, 4 (including the two women) were in the age bracket of 21-25, 8 of the males were over 40 years while the other 4 were between 31-40 years old. The two female extension workers were the only ones who were not married, while 13 males were all married with only one divorced or separated male. The two female extension workers and the divorced or separated male extension worker had, therefore, no children to look after, which would generally mean that their mobility in extension work would not be constrained in comparison with the other 13 married extension workers who had children ranging from one child to more than five children. However, this is not to imply that the childless workers are more efficient in extension work than

those with children. It is only a factor which needs specific attention, especially in discussing the conditions of service of female extension workers in a patriarchal society.

Education and Agricultural Extension Training

The level of education of the Extension Workers in the district is generally good, with most of the staff having completed elementary school, plus a 3 or 4 year diploma course in agriculture (see Table 39).

Table 39
EDUCATIONAL LEVEL ATTAINED

| | | |
|-----|---|---|
| 1. | Completed elementary school | 2 |
| 2. | Two years of secondary school | 1 |
| 3. | Two years of secondary school, plus at least 1 year of agricultural training | 7 |
| 4. | Four years of secondary school | - |
| 5. | One year of post-secondary school training | - |
| 6. | Two years of post-secondary school training (certificate) | 1 |
| 7. | Four years of secondary school and two years training certificate | 3 |
| 8. | Four years of post-secondary school training and 3/4 years training certificate | 2 |
| 9. | Three years of post-secondary school training diploma | - |
| 10. | Four years of post-secondary school training degree | - |
| 11. | Other (specify) | - |

The two females fall in category 7 and they studied agriculture at post-secondary school level, which embraced extension methodology including animal husbandry, farm engineering, farm management, irrigation and horticulture. All the extension staff interviewed indicated they had received in-service training since joining Agritex. This training varied from farm engineering, agro-forestry, cotton production and management, cartography to bee-keeping.

The work experience of the extension staff is shown in Table 40 that follows:

Table 40
LENGTH OF SERVICE IN EXTENSION WORK

| NUMBER OF YEARS | NUMBER OF EXTENSION WORKERS |
|-----------------|-----------------------------|
| Up to 2 years | 3 (including the 2 females) |
| 3 - 5 years | 1 |
| 6 - 10 years | 1 |
| 11 - 15 years | 2 |
| 16 - 20 years | 3 |
| Over 21 years | 6 |

Generally, the district is serviced by well-experienced staff, as the table indicates. It is of interest to note that the 2 female workers are in the least experienced category. This is because prior to independence, extension was primarily a male preserve and women recruitment into extension only surfaced after independence. Both female extension workers (EWs) interviewed said they found their work challenging and their remuneration quite competitive at a ceiling of \$6,540 per annum (\$545 per month), and travelling and subsistence allowances are similar for all Agritex staff positions.

While the survey data does not inform us about the rates of attrition and turnover of staff, and our interview with the Provincial office indicated that there have been no resignations since independence except the loss by death of 2 extension workers, the national data (see section 4) indicates much higher staff loss rates, especially at the senior officer levels among technical staff. Conditions for field staff could, therefore, be presumed to be reasonable especially for the lowest rung.

The number of farm families EWs are supposed to service vary between the workers and among the regions. In the district, the extension workers serve, on the average, about 521 families each according to 11 of the EWs, while 5 workers said they serve between 300-500 families within the Magondi communal area, averaging 480 families per extension worker. All the extension workers viewed their extension audience as the whole farm family irrespective of gender and age. Whether this view is put into practice is, however, another matter.

Problems, Difficulties and Their Solution in Reaching Farm Women

The major problems pointed out by 50 of the interviewed extension staff in reaching farmers were limited mileage allowances per extension worker and low attendance of farmers at agricultural training sessions. The other 50 percent surprisingly said they had no problems in reaching farmers. With regard to difficulties in reaching farm women, 20 extension workers including the two females indicated that they had no difficulties. Since the female extension workers are the pioneering young women in extension in a district mainly populated by traditional and conservative older people, it is unclear why this is the case. The six (6) who had difficulties in reaching farm women point out that:

- Meeting wives alone (as husband may be working away) without their husbands is usually treated with suspicion by the community and husbands.
- Most women have to be visited at their homes, which may be far apart; their attendance at meetings is low due to engagement with other household duties.
- Women farmers seem to be more comfortable and open with women extension workers.

Only four of the extension workers said they had no special extension techniques to use in reaching farm women, while 12 (including both female extension workers) said they used the following approaches:

- women groups;
- school assemblies to announce meetings;
- concentrated on the crops most preferred by women farmers.

Clearly the use of women's groups by extension workers while practised does not have widespread coverage when considered in relation to the response to the related question by women farmers.

All the workers interviewed had motor-cycles provided by Agritex, through World Bank loans.

They all felt that their extension work in terms of mobility had improved. One female extension worker suggested that she would have preferred a bike designed for females. On the "mileage shortage", one extension administrator mentioned that while it was appreciated that the mileage given may not be enough to cover the whole area, it was important that this limit be there, so that the EW visited priority areas first, and also devised strategies such as encouraging farming groups that would reach more farmers in single trips than house to house visits.

Finally, to improve the situation on access by genders to agricultural information, the extension workers suggested that:

Male farmers must encourage their wives to attend meetings even if the men are absent;

Mass media such as films, rural magazines and radios, preferably in the training centres, should be provided;

Since a significant number of females is engaged in herding livestock, introduction of grazing schemes and paddocking would go a long way to women attending agricultural functions.

In the questionnaire the final section was directed to female extension workers to hear their views on how and why they chose extension as a profession.

Female Extension Workers' Views

The two female EW respondents described the level of their acceptance by the communities as being "Good" and by both male and female farmers approached separately. Both EWs were single, and did not come from Zvimba, where they were posted, although one came from Chinhoyi Town, the provincial capital.

The fact that they did not live with their relatives did not pose problems since, as one of the EWs said: "The farmer's family looks at me as a member of the family." The only problem encountered was when they first came to work in the area, as the first female EWs to do so, young men persistently harassed them for attention. However, as they settled down this problem disappeared. On why they chose a career in agricultural extension both respondents said they opted for it because it promised a lot of challenges which they both needed. On gender problems related to recruitment to college and training, the female workers said there had been no gender-based prejudices they suffered in training or in being selected to train. One worker, however, said she had faced training problems initially, especially in terms of some assignments such as ploughing, using cattle and tractors, as she was completely unprepared for this work. Ploughing being traditionally a male domain, in spite of recent changes, posed problems of experience among women. Other problems faced were financial. This was not further elaborated. Female EWs interviewed in the preliminary visits to Sanyati, in Kadoma District, which is near the study area had similar opinions. Interviews on various aspects related to the overall educational, professional and community services in Zimbabwe among a handful of female agricultural extension officer trainees at Chibero Agricultural College, were conducted with individuals and groups at the college.

The following range of verbatim responses to different questions provides interesting insights:

INTERVIEW OF FEMALE OFFICER TRAINEES AT CHIBERO

Question: What influenced you to take up agriculture as a profession?

Responses:

- I did agriculture as a subject at school, and my agriculture teacher encouraged me to take it up as a career. Also, my father is an agricultural extension officer and I used to admire his work.
- I studied agriculture at secondary school for two years, however, the motivation to study agriculture came from within myself.
- From an early age I was adventurous. I decided to do agriculture because of its adventurous nature, with lots of research possibilities. I did not want any type of office or executive work.

- I came to Chibero and an agricultural career for prestigious reasons. I wanted to be unique in my home area Mutasa, as only 1 female had entered this career so far. I needed something challenging and different from the usual path for many girls, nursing.
- My father was handicapped in the Chinhoyi Bus Disaster of 1983, and the Government set up a scheme to help the families of the deceased or handicapped. I was selected for training so that I could go back to Zowa, and provide extension services support to the small-scale farmers in the area since the farms have deteriorated since the experienced farmers died or became handicapped. I like farming and I have no regrets.
- I chose the career because it has security, either in formal or informal employment. I love agriculture as a career also.

Question:What sort of problems have you encountered since you started training?

Responses:

- I had problems during the first 4 weeks, where we had to deal with hard work such as weeding, and cultivating, work I was not accustomed to since I come from the city, Harare. I also could not cope with the long hours. I soon got accustomed to the work.
- My only problem has been finance. The individual projects we have to do require a lot of money, and my mother is a widow. It is difficult for her to raise \$125.00. The Government only pays for boarding and school fees.
- Some male students try to make us feel inferior physically, in say, engineering practicals. We try hard not to accept this, and we go all out to counteract this physical challenge.
- I have not encountered any problems whatsoever. I enjoy the physical challenges, and women are beating the boys in theoretical work generally. I do not see what other career can satisfy me like this one, at the moment.
- Sexual advances by males were a problem initially, but they soon left me alone when they realised I was not up to their nonsense.

Of the 30 female trainees interviewed, the trend was that they all felt they had chosen the right career and training. They found the training quite interesting and challenging, and they were all doing well all-round except one girl who was concerned about her performance in theoretical work. All the trainees also did not mind where they were deployed, either in rural areas or urban centres. All were single, with one divorcee, although 2 trainees were planning to get married after 2 years of working, whilst the rest had no plans in this regard. The only dissatisfaction expressed by the majority of the interviewed trainees was that any student falling pregnant was expelled forthwith. One trainee had this to say about it: "I feel that the regulations that pregnant women should terminate their training is unfair because it results in wastage of funds and time spent at the college. It would be better if we can be allowed to resume training after the delivery of the baby." In both nursing and teacher education training, the policy has been revised to enable trainees to continue with their training after delivery. Perhaps there is an urgent need for a review of this policy with regards to agricultural training, in the light of human resource, time and financial wastage (it costs the Government about \$8,000 per annum to train an agricultural officer). This regulation is clearly impractical. Finance for projects was a problem for most of the interviewees, who came from poor backgrounds, to afford the expensive items needed in the training projects. However, this problem has been alleviated for the 1987 August intake, as the Canadian High Commission has donated 25 scholarships to finance such projects for female trainees.

There is a commonly held assumption that those seeking careers in agriculture are from the rural areas. Of the interviewees at Chibero, 10 had families living in the cities and towns (2 had actually attended schools in the low-density suburbs of Harare).

Finally, to contextualise extension workers' level of efficiency in the field it was decided that interviews would be carried out at one of the Agricultural Colleges to elicit the training methods and emphasis given generally in extension training. The following is, therefore, a summary of the visit and interviews conducted at Chibero College of Agriculture.

Further Education in Agriculture

Post-school further education takes place in the following institutions in Zimbabwe:-

- National Diploma in Agriculture
 - Chibero College of Agriculture
 - Gwebi College of Agriculture
- Ministry Certificate in Agriculture
 - Mlezu Institute of Agriculture
 - Esigodini Institute of Agriculture
 - Kushinga Phikelela Institute of Agriculture
 - Rio Tinto Institute of Agriculture
- Diploma in Forestry, Forestry Commission, Ministry of Natural Resources
 - Nyabira College
- Diploma in Tobacco Culture (Private Institutes)
 - Tobacco Training Institute
 - Trelawney Training Institute
- Diploma in Parks and Wildlife, Ministry of Natural Resources
 - On field training for rangers, with a substantial bias in agriculture.

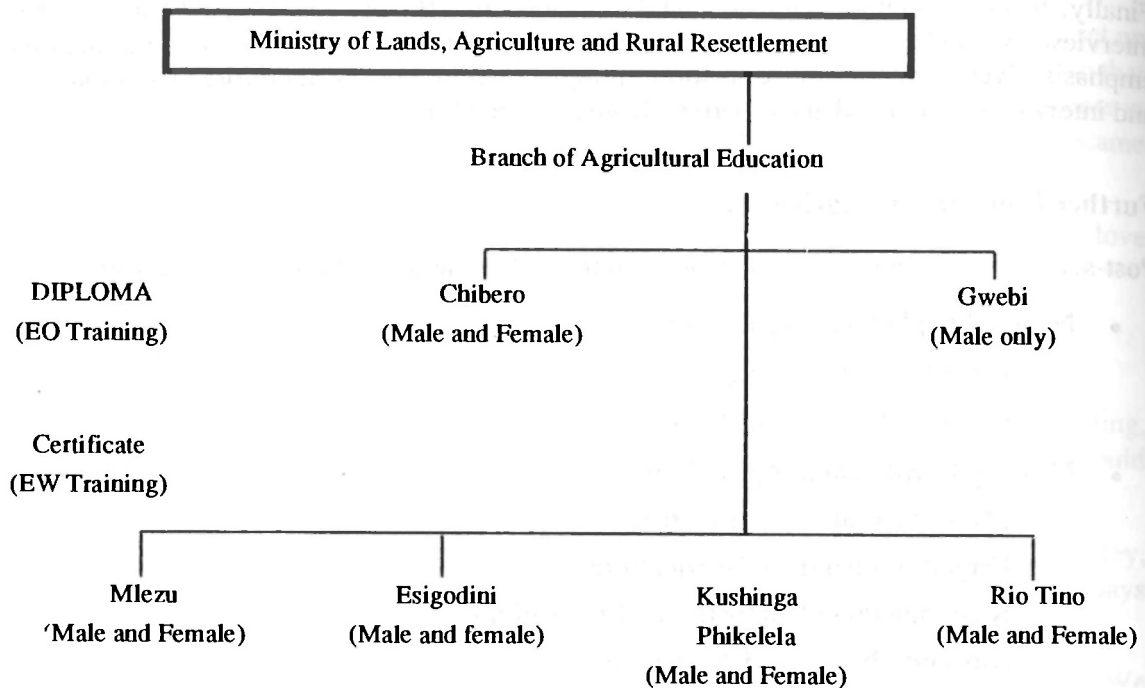
Of the above institutions, Chibero College of Agriculture is the leading one, and for that reason, it has been singled out for discussion here. A second institution is also discussed for comparative purposes. The organogram below displays the hierarchical structure of agricultural training in the country, as at 1987, under the auspices of Government (excluding the University of Zimbabwe).

Chibero Agricultural College

Chibero Agricultural College was founded in 1961. Its expansion occurred rapidly after Independence, with the first female intake commencing in 1981 when 5 females were enrolled. In 1982, 1983, 1984, eight, twelve and forty women were enrolled respectively. The increases in 1984 followed the building of a female hostel. The College is well-staffed and offers numerous recreational facilities. The officers supervise the work of extension workers. The course is 2 years college residency and 1 year on-farm training.

According to our interviews with the principal of Chibero College, the college receives approximately 10,800 applications and of these they select 25 women and 45 men. Out of these only 20 women and 40 men commence training after the strict selection criteria have been fulfilled. The demand for

Figure 3
AGRICULTURAL TRAINING INSTITUTES



training in extension work is phenomenally beyond reach of enrolment, which also explains the confidence expressed in section four on the adequacy of lower level EW in Agritex.

Selection criteria include:

- 5 good "O" levels including English and a Science subject;
- 18 years and above as maturity is crucial. Average age is 22 years;
- Pre-training practical on-farm experience for 9 months to 1 year;
- Panel interview;
- Essay;
- Physical fitness tests.

It is possible for extension workers to be trained as officers at Chibero, to enable those who are ambitious to achieve career mobility, provided they meet the academic entry requirements. The 1987 intake at Chibero includes 2 women who were former extension workers, and had since met the academic entry requirements through private study. The ratio of 1:2 (female/male) will remain like that for the foreseeable future according to the Principal, since "Women cause a high staff turnover due to inherent problems such as their demands for special treatment in food, linen, blankets, baths instead of showers, etc. This causes frustrations for staff." The view of the matron (female) was that "I would prefer more men than women. We have so many problems with women than men." The Principal added that "Female student performance is good!" It would appear that some of the problems involving female trainees are not inherent as suggested, but emanate from lack of adequate preparation at recruitment, as the interviews of female trainees indicate later. Suffice it to say these responses

simply address symptoms of more deeply rooted structural, perceptual and historical problems in the promotion of female professionals.

The College used to have female lecturers among the total of 12 lecturers, 2 of whom have been lost to the private sector for better-paying employment, and the remaining one is a lecturer in agricultural engineering. Experienced instructors teach the practicals. Attrition rates for female students are usually due to pregnancy and/or marriage and losses are between 3-5 per year. This is not a favourable situation since it costs the Government about Z\$8,000 (current rates) to train one student annually. The students only contribute token amounts towards their projects.

According to the principal of Kushinga Phikelela that training centre was established in 1981 as a private college supported by donors, and is the brain-child of the former President of Zimbabwe. It was intended as a vocational training centre for ex-combatants after the attainment of independence. Certificates in Agriculture were awarded after two years study. The Government took over the college in 1983, and the college was placed under the Ministry of Agriculture, Lands and Rural Resettlement.

The course ran for three years until it was changed to two years in 1986. The intake annually is 150 students, 75 of whom are in the first year and 75 in the second year. Accommodation facilities for female students are half those available for male students; as such the intake ratios of 1:2 (female/male) are based on existing facilities. The cost of training a student at Kushinga Phikelela is \$4 600 per annum. So far the intake ratios have been as follows: 1981 - 20 females, 130 males; 1982 - 50 females and 100 males; 1983-1987 50 females and 100 males.

Generally student pass rates are very high with an attrition of only 3 students per annum due to female pregnancies.

However, the college policy is such that the students can re-enter the college after delivery to complete their courses, at the discretion of the Principal. Indeed, some students have returned and completed their courses successfully.

The selection is based on minimum entry requirements of 4 "O" levels in English Language, Mathematics, a Science subject and any other subjects, in grade D or better. Recently the tendency has been to select candidates with higher grades, since they receive numerous applications from all sexes.

Other selection criteria are panel and personal interviews, discussion groups, multiple-choice test on general issues, and potential and suitability of the candidate. The college has 15 teaching staff as follows: Department of Animal Husbandry - 2 lecturers (1 Degree, 1 Diplomat), one of whom is female and Head of Department, and 2 male assistant instructors (certificate in agriculture and about 8 years field experience): Department of Field Husbandry 3 males and 3 assistant instructors (1 female, 2 males): and Department of Agricultural Engineering 2 male lecturers and 2 male assistant instructors.

Employment prospects for the graduates are in Government service, that is Agritex (8%) and parastatals (e.g. Dairy Marketing Board, Cotton Marketing Board, Agricultural Finance Corporation) and the private sector (92%). On how female students perform during training the Vice-Principal said for both academics and practicals, they fare very well, sometimes they do even better than their male counterparts. It would appear from the facts of the above interview that the often commonly held view that females are not suited to careers in agriculture is erroneous.

Since the field data indicates the acceptance of female extension workers by communities, and the calling for more female extension workers by some women farmers, agricultural education should be developed to cater for more female trainees.

Some Concluding Remarks

Extension Workers and Administrative Surveys Summary

The major findings from both the Extension Workers and Administrators are that their training and qualification for extension work are reasonably appropriate. While the extension workers feel they would even be more efficient in reaching more farmers if they could be afforded a wider mobility range, the administrators feel that generally the mileage given per worker is sufficient and in fact encourages the extension workers to prioritise the important issues first.

With regards to projects specifically for women, both extension and administrative staff felt the need for consultation with both women and male farmers of prime importance as usually the village men must be first convinced of a project's importance in order to co-operate with extension staff. Furthermore the project must be seen to show respect to local ideals of women's proper roles in society, therefore what may be appropriate to local male farmers would not automatically be assumed to be the case with female farmers. This in fact is the implicit thread of argument right through this study that disadvantages more than advantages are empirically evident in the position of women farmers in communal lands.

The constraints of conveying women for public meetings, the suspicion of personal visits to the female farmer by the male extension worker, the need for child care facilities and grazing schemes or paddocks for livestock rearing and management etc. are all agriculturally related factors affecting female farmers' work especially crop production for the household food security. Extension staff in general are agreeable that the existing women's groups need strengthening as a medium for agricultural innovation to communal farmers.

Extension Services to Female Farmers

In the Female Farmers Survey certain patterns of extension service ineffectiveness were identified including the low frequency of household visits and field days, constraints from usufruct rights, livestock ownership, access to credit etc. and ultimately lack of effective decision-making within the household. All these are related to patterns of asset ownership, land use rights and labour expended in agricultural production. A general picture given by the response to the questionnaire is that on assets, ownership is biased towards men but wives have use rights almost as equal or equal to husbands. Nonetheless, the current District Administration allocation rights are still biased towards males in the communal areas and women should have more say on the allocated plots, especially in a situation with absentee husbands. The GMB card ownership also needs urgent attention, as in particular, decision-making on how household agricultural income could be spent lies or is influenced mostly by the person/spouse whose name appears on the card. It is therefore important that farm women must also have GMB cards to enable them to make effective decisions on the household expenditures. Such a step will be quite liberating in that an income-generating farm woman, who will make decisions on the income, will not be hesitant to ensure that household decision power is rationalized to suit concrete real farm problems and risks, and hence improve female responsiveness to agricultural extension services. While the majority of farmers' responses showed apprehensions to natural calamities particularly drought, all the extension staff responses seem to underplay the farmers' worry by not emphasising irrigation development in the communal lands. Perhaps this oversight lies in that the questionnaire did not adequately cover strategies for water development and provision in the communal lands. Finally on this issue the Extension Administrators all pointed out at interviews that they, as policy-makers, did not see their extension audience in categories but in fact looked at the holistic nature needing strengthening in certain aspects NOT by gender but by need.

Identified Needs of Farmers in Relation to Extension Training

In order to relate the needs of the farmers as identified by themselves in the study, with the type of service provided by extension services, it is necessary to review these needs within the context of the extension environment as deduced from the study, with reference to agricultural training. This will indicate the preparedness of the extension provider to service these identified needs, which include access to credit control of production resources, technical know how and marketing infrastructure.

Since only four out of the 16 extension workers interviewed said they had employed no special extension techniques to reach farming women it might be considered that such special strategies are not required.

This is not true, for the survey data being perceptual has problems of subjectivity. Strategies for meetings required by male EWs, while the advantages derived from the fact that women farmers are more comfortable and open with female extension workers should be exploited further by Agritex. Even training needs to include aspects that sensitize EWs to the special needs of female farmers, ways of approaching them and techniques of adapting technical advice to the resource and social constraints of female farmers. If EWs are adequately sensitized, they could more effectively assist women in articulating their needs and thus bring the voice of the rural people to the central policy makers and planning. Perhaps, extension training should also include studies in political economy. A substantive area that also needs to be included in the curriculum of agricultural extension work is agricultural production in relation to household nutrition sufficiency.

Some Policy Guidelines

In conclusion it is apparent that a variety of constraints, some resource based, others socio-cultural and yet others institutional, place limitations on the effectiveness and appropriateness of agricultural services to women farmers, in a situation where very little has been done to formulate specific policies and implement concrete agricultural extension programmes directed at women farmers.

Institutional constraints were identified firstly at the level of the Agritex approaches, extension workers' problems and training bottlenecks. Secondly other institutions which do not positively discriminate in favour of women taking into account their resource and socio-economic constraints or their projects targeted at women are narrowly defined with inadequate technical content on agricultural technological aspects. Thirdly, overall extension services, although now broadly available in the previously neglected Communal Areas, are not systematically co-ordinated in general, nor are they specifically co-ordinated around improving the economic capabilities of women farmers and reducing their over-arching labour burden in a variety of household duties.

While there has been an attempt by Government to reduce some constraints faced by women farmers, this is done in a piecemeal fashion focusing on a few rights, such as usufruct and marketing. What is required is a systematically organized integrated development package directed at enabling women farmers to increase farm production, productivity, capability to utilize existing extension services and to gain adequate control of the means of production as a basis for progressive and independent farm decision-making. Such a package should necessarily vary according to the diverse agro-ecological, economic and socio-political circumstances that characterize Zimbabwe.

Special attention should also be paid to the growing regional and social differentiation that marks Zimbabwe's Communal Areas. It will be facile to ensure that the post-independence agricultural extension and support services gains are spread over a wider Communal Area population, focusing now on the poorest and on women farmers given the persistence of labour migrancy, land resource

hunger and the general uneven access to agrarian resources. In this context it is critical to recognize the foreseeable limitations of specific programmes aimed at improving the effectiveness of agricultural extension services in the absence of broader agrarian reforms.

Further research into relevant possibilities for agricultural extension services to women farmers in this context is required and should be informed more by the agrarian reform experiences in Resettlement Schemes, and a clearer understanding of the Government of Zimbabwe's current policies.

At any rate there is need to recognize the danger of peasant rejection of agricultural extension advice altogether if and when current agricultural development programmes begin to threaten the basic household income and food security, and margin of returns to their increased labour inputs to crop production. More thoroughly designed incomes, food and pricing policies are essential for the long term effectiveness and appropriateness of agricultural extension service.

In the short-term there is a need for Agritex to develop a more thorough-going philosophy, policy and approaches towards women taking into consideration some of our study findings, which we believe have some general applicability to the country as a whole. These policies and programmes should be developed together with the MCDWA and other relevant organisations identified in this study, and be based on a deeper scientific assessment of the needs of female farmers, within their holistic context. Institutional co-ordination in Zimbabwe's Communal Areas has for too long been problematic, and could possibly be improved around concrete material projects such as the promotion of integrated household production, rather than in terms of the sectoral or regional territorial jurisdiction of the various ministries concerned.

The institutional support required by MCDWA and other relevant organizations to improve their lobbying and organisational work aimed at removing resource, legal and socio-cultural constraints suffered by "women farmers" or rural women in the above context is of critical importance and should be increased.

The scope for improving the appropriateness and effectiveness of agricultural extension services in Zimbabwe is wide open.

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Appendix I
CORE QUESTIONS FOR THE INTERVIEW SCHEDULE FOR EXTENSION
ADMINISTRATORS

The following questions have been developed for use in interviewing extension administrators in a study to determine the effectiveness of the agricultural extension service in reaching farm women with appropriate and timely agricultural information.

These questions are to be used as the core of an interview schedule which is to be developed by the research consultant to fit local conditions. It is recognized that this questionnaire is not all inclusive and will likely have to be expanded to meet local needs. It must also be recognized that this list of questions must be included within the total questionnaire so that there will be a basic similarity in the questions asked of the respondents in each of the countries being studied.

Personal Information

1. Sex: male female
2. Age: under 30 31-35 36-40
 41-45 45-50 over 50
3. Marital Status:
 never married married
 divorced or separated widow or widower
4. Number of children:
 none 1-2 3-5 more than 5
5. Which category best describes your level of formal education?
 two years of secondary school plus at least one year of agricultural training
 four years of secondary school
 one year of post-secondary school training
 two/three/four year post-secondary school training certificate (delete inappropriate)
 three years of post-secondary school training (Diploma)
 four years of post secondary school training (Degree)
 Post-Graduate Degree (M.Sc.)
 Other (specify)
6. Have you studied agricultural extension methodology?
 yes no

If yes, briefly describe the subject matter studied in extension methodology.

7. Have you received training in administration?

yes no

If yes, describe the type of training and subjects you studied.

Information related to your extension work

8. How many farm families do your village extension workers serve?

less than 100 farm families 100-200
 200-300 300-400
 400-500 over 500 farm families
(specify, How many?)

9. Who do you view as the extension audience?

adult male farmers
 adult female farmers
 adult male and female farmers
 rural youth
 the farm family
 all of the above
 other (Please specify)

10. Are village level extension workers encountering problems in getting agricultural information to small-scale farmers?

yes no. (If yes, please explain)

11. Are there any difficulties in getting agricultural information to farm women?

yes no. (If yes, please explain)

12. Are there special considerations or extension techniques which are being used to reach farm women with agricultural information?

yes no. (If yes, please explain)

13. Does the extension service provide transport for village level extension workers to use in reaching the clientele which they are expected to serve?
_____yes _____no. (If yes, please comment on the type and efficiency of the transport provided): _____

14. Realistically, under the current financial situation what could be done to reach farm women more effectively?

15. At the farm level, do extension workers more frequently advise:
_____men or _____women, why?

16. If they more frequently advise men, why do they contact fewer farm women?

OR

17. If they more frequently advise women, why do they contact fewer farm men?

18. Approximately what percent of the extension clientele are:

adult farm men? _____%

adult farm women _____%

rural youth under 25 _____%

19. How many village level agricultural extension workers (do not include home economics) are under your supervision?

Male? _____ Female? _____

20. In general, would you say that appropriate and timely agricultural advice is equally available to both men and women?

_____yes _____no. If no, why?

21. Is there any special training offered for extension workers to enable them to get agricultural information to farm women more effectively?

_____yes _____no. If yes, what type of training?

22. If no, why not?

23. If you think that farm men and women do not have equal access to agricultural extension information, how could the situation be improved?

24. General comments (if any) on the difficulties of getting appropriate and timely agricultural information to farm women.

Appendix II

QUESTIONS FOR THE INTERVIEW OF EXTENSION WORKERS

NAME OF ENUMERATOR _____

INTERVIEW NUMBER _____ AREA _____

PERSONAL INFORMATION

1. Sex: _____ male _____ female
2. Age: _____ under 20 _____ 21-25 _____ 26-30
 _____ 31-35 _____ 36-40 _____ over 40
3. Marital Status: _____ never married _____ married
 _____ divorced or separated _____ widow or widower
4. Number of children: _____ none _____ 1-2 _____ 3-5 _____ more than 5
5. Which category best describes your level of formal education?
_____ completed elementary school
_____ two years of secondary school
_____ two years of secondary school plus at least one year of agricultural training
_____ four years of secondary school
_____ one year of post-secondary school training
_____ two years of post-secondary school training (certificate)
_____ four years of secondary school and two years training certificate
_____ four years of post-secondary school training and 3/4 years training certificate
_____ three years of post secondary school training (Diploma)
_____ four years of post secondary school training (Degree)
_____ other (specify) _____

6. Did you study agriculture at the post-secondary school level?
_____ yes _____ no. If yes, what was your speciality?
_____ general agriculture _____ other (specify)

7. Have you studied agricultural extension methodology?
_____ yes _____ no. If yes, briefly describe the subject matter studied in extension methodology _____

8. Have you received in-service training since you joined the agricultural extension service?
____yes ____no. If yes, what subjects have you studied in in-service courses?

9. Work experience:
____years (a) Agricultural Extension
____years (b) Other (specify)_____

INFORMATION RELATED TO YOUR EXTENSION WORK

10. How many farm families are you expected to serve as an agricultural extension worker?
____less than 100 farm families ____100-200
____200-300 ____300-400
____400-500 ____over 500 farm families
(specify, How many?_____)

11. Who do you view as your extension audience?
____adult male farmers
____adult female farmers
____adult male and female farmers
____rural youth
____the farm family
____all of the above
____other (please specify)_____

12. Have you encountered problems in getting agricultural information to small-scale farmers?
____yes ____no. (If yes, please explain)

13. Have you had any difficulties in getting agricultural information to farm women?
____yes ____no. (If yes, please explain)

14. Are there special considerations or extension techniques which you use to reach farm women with agricultural information?
_____yes _____no. (If yes, please explain)

15. Does the extension service provide transport for you to use in reaching the families which you are expected to serve?
_____yes _____no. (If yes, please comment on the type and efficiency of the transport provided):

16. Realistically, under the current financial situation, what could be done to help you reach farm women more effectively?

17. At the farm level, do you more frequently advise:
_____men or _____women, why?

18. Approximately what percent of your extension clientele are:

adult farm men? _____%

adult farm women? _____%

rural youth under age of 25 _____%

19a. If you more frequently advise men, why do you contact fewer farm women?

19b. If you more frequently advise women, why do you contact fewer farm men?

20. In general, would you say that appropriate and timely agricultural advice is equally available to both men and women?

_____yes _____no. If no, why?

21. If you think that farm men and women do not have equal access to agricultural extension information, how could the situation be improved?

QUESTION FOR WOMEN EXTENSION WORKERS ONLY

22. Would you rate your level of acceptance by your male audience as:

_____Excellent _____Good

_____Satisfactory _____Poor

23. If poor, explain the reasons

24. Would you rate your level of acceptance by your female audience as:

_____Excellent _____Good

_____Satisfactory _____Poor

25. If poor explain the reasons why

26. Do you live with your family?

_____Yes _____No

27. If no does this cause any problems?

28. What made you decide to train as an Agricultural Extension Worker?

Appendix III
HOUSEHOLD QUESTIONNAIRE

INTERVIEW

PERSONAL INFORMATION

1. Head of Household:

1. Husband
2. Wife
3. Senior Spouse
4. Junior Spouse
5. Daughter of H H
6. Self
7. Other relative

2. Respondent:

1. Husband
2. Wife
3. Senior Spouse
4. Junior Spouse
5. Daughter of H H
6. Self
7. Other relative

3. Age:

1. 1 = under 20
2. 21 - 25
3. 26 - 30
4. 31 - 35
5. 36 - 40
6. 40 - 50
7. Over 50

4. Which category best describes your level of formal education?

1. Never attended school
2. Attended but did not complete primary school
3. Completed primary school
4. Completed two years of secondary education
5. Completed four years of secondary education
6. Additional training (specify)

5. Marital Status:

1. Never married
2. Married
3. Divorced
4. Widowed

6. If you are married, does your husband/wife (delete W.N.A.):
-
1. Live at home and work as part of the farm family?
 2. Live at home but earns an income exclusively away from the farm?
 3. Live at home, works as part of the farm family and also earns an income away from the farm?
 4. Live away from the farm and earns an outside income?
 5. Other situation - Specify
7. How many children do you have in the family?
-
1. None
 2. 1-2
 3. 3-5
 4. more than 5
8. On the average, how many hours do you work per week on H H activities (i.e. cooking, laundry, child-care, etc)
-
1. 1-10
 2. 10-15
 3. 16-20
 4. 21-25
 5. 26-30
 6. 31-35
 7. 36-40
 8. Over 40
9. On the average, how many hours in a week do you spend working on agriculture?
-
1. 1-10
 2. 10-15
 3. 16-20
 4. 21-25
 5. 26-30
 6. 31-35
 7. 36-40
 8. Over 40
10. Who owns (has title to) farm land?
-
1. husband
 2. wife
 3. land jointly owned by wife and husband
 4. land is rented
 5. self
 6. other situation (specify)

11. What would you say is the size of the area you cultivate?

1. less than a hectare
2. 1-2 hectares
3. 2-5 hectares
4. over 5 hectares

12. Of the area you cultivate, how many hectares are assigned to:

1. major cash crop
2. major food crop
3. other crops (specify)

13. Who decides what to crop:

1. Husband
2. Yourself
3. Other

14. What would you say is:

- a. your major food crop
- b. major cash crop
- c. third most important crop

Choose from the list below:

1. Maize
2. Mhunga
3. Rapoko
4. Cotton
5. Tobacco
6. Ground nuts
7. Sunflower
8. Other

15. Give list of the major tools and equipment you use in farming:

16. How many livestock do you have in your household? _____

17. How many draught animals do you have? _____

18. Of the livestock you have, how many are owned by you? _____

19. If you do not own livestock what are the reasons?

INFORMATION RELATED TO EXTENSION WORK

20. Do you obtain advice on your agricultural work on the farm from:

1. your husband
2. your neighbour
3. your agricultural extension officer
4. other (specify) _____

21. What kind of agricultural advice do you normally need?

22. What kind of agricultural advice do you find most difficult to obtain?

23. Why do you think this advice is difficult to get?

24. When was the last time you received advice from an extension worker?

1. less than a month ago
2. 1-2 months ago
3. 3-6 months ago
4. 7-12 months ago
5. over one year ago
6. I have not yet received advice from an extension worker.

25. On average, how often do you get advice from an agricultural extension worker?

1. 10 times a year or more
2. 5 times a year
3. 2 times a year
4. once a year
5. never

26. How often would you like the extension worker to visit you in a year?

DRY SEASON:

1. once a month
2. more than once a month
3. every two months
4. do not require the services

WET SEASON:

1. once a month
2. more than once a month
3. every two months
4. every three months
5. do not require services

27. If you want to visit the nearest agricultural extension worker, how far would you travel?

1. less than a kilometer
2. 1-5 kilometers
3. 6-10 kilometers
4. more than 10 kilometers

28. What area of work or subject matter does the extension service in your area emphasize?

29. Do you belong to a women's group (e.g. club) in your community?

1. Yes
2. No

30. What is the purpose of this group?

31. What is the membership of the group? _____

32. In your opinion, is this women's group helpful in terms of providing agricultural information?

1. Yes
2. No

33. By your observation, which group of people or what type of people or individuals in your area do extension workers visit most frequently?

34. Does your extension officer hold group meetings for farmers?

1. Yes
2. No

35. If yes, do you attend these meetings?

1. Yes
2. No

36. If no, why not? _____

37. At what place are these meetings held?

1. School
2. Under a tree
3. Training Centre
4. Other

38. How do you travel to the meetings?

1. Walk
2. Bus
3. Cycle
4. Car
5. Other

39. What does it normally cost you to get to the meeting place?

40. Do you pay your own money to get to the meeting place?

1. Yes
2. No

41. When group agricultural meetings are held, which response best describes the participation of your family?

1. attend by yourself
2. attend with husband
3. only my husband attends
4. no family member attends
5. alternate husband and wife
6. other arrangements (please explain) _____

42. Why do you have this pattern of attendance? _____

43. When agricultural field days are held, which response best describes your family participation?

1. attend by yourself
2. attend with your husband
3. only my husband attends
4. no family member attends
5. other (please specify) _____

44. Why do you have this pattern of attendance at such functions?

45. In general, would you say that appropriate and timely agricultural advice is equally available to both men and women in your community?

1. Yes
2. No

46. If no, why do you think not? _____

47. If you think farm women and men do not have equal access to agricultural extension information, how, in your opinion, could this situation be improved?

48. Do you have access to a radio?

1. Yes
2. No

49. If yes, do you listen to Agritex programs?

1. Regularly
2. Irregularly
3. Never

50. Is the information of any help to you?

1. Yes
2. No

51. If yes, how? _____

52. Is the agricultural extension worker in your area male or female?

1. Female
2. Male

53. Would you prefer a woman or a man for an extension worker?

1. Female
2. Male

54. What is the basis of your preference? _____

55. What do you think the agricultural extension worker should do to be more helpful to women farmers like you? _____

NUTRITION INFORMATION

56. Do you receive any nutrition education?

1. Yes
2. No

57. Where do you obtain this education?

1. LGPO
2. Health Assistant
3. Village Health Worker
4. Community Development Worker
5. Nutrition Co-ordinator
6. Nutrition Advisor (specify)
7. Agricultural Extension Worker

58. What type of nutrition education do you receive?

59. Do you grow your basic food?

1. Yes
2. No

60. How much food do you retain for H H consumption per year?

_____ bags grain
_____ bags legumes

61. Is this food enough between seasons?

Grain:

1. Yes
2. No

62. Legumes:

1. Yes
2. No

63. Vegetables:

1. Yes
2. No

64. What basic food supplements do you purchase between seasons?

65. How much of this food is purchased for supplementation:

_____ bags grain
_____ bags legumes

66. Do you have a vegetable garden?

1. Yes
2. No