World Vision Ethiopia Capacity Building Division
Research & Documentation Department

CONTRBUITONS OF NGOS TO HOUSEHOLD FOOD SECURITY:

THE CASE OF THREE ADPS OF WORLD VISION ETHIOPIA IN AMHARA REGIONAL STATE

VOLUME I MAIN REPORT

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CCRDA

The objectives of the Study goes beyond and covers:
1) livelihood Security
2) constraints to realizing WVE's vision

?

May, 2001
Addis Ababa
Ethiopia

(1) In this report the word "suggest" is wrongly used in many places. I think "suggest" implies a "recommendation". It does not go with the context or intension. Please check.

Executive Summary

Sub-Saharan Africa has remained poorer that what is used to be 30 years ago. The state used to play a predominant role in Africa's development in the 1960s and 1970s. The private sector has received increased attention since early 1980s. However, neither the state nor the private sector has succeeded to reduce ever-deepening poverty in Africa. The third sector (the voluntary sector) or civil society has emerged as an important development actor, since the 1980s. In Ethiopia, NGOs came to the picture in mid-1990s, when the country faced a drought-induced famine. The 1990s saw significant growth in the number of NGOs operating in Ethiopia. In particular, the number of local NGOs has increased substantially since 1991. However, there has been limited information about the contributions of NGOs to economic and social development of the country and about the constraints they have encountered. In particular, the literature lacks quantitative information on the food security status of households benefiting from NGO programs. There is a need to undertake a holistic, comprehensive, and in-depth study of the impact of an NGOs intervention in household food and livelihoods security.

World Vision Ethiopia (WVE), a Christian Humanitarian NGO, has been running 13 Area Development Programs (ADPs) in ten zones and twenty Woredas of five regional states. Using a holistic approach to rural development and budget amounting to USD 16,659,970 (in 1999), it has attempted to reach 2,672,700 beneficiaries and covered 103,782 children-in-program. In meeting its mission of bringing about a holistic transformation of the lives of the poor, WVE has adopted an additive strategy of growth (meaning both geographical expansion and functional growth) and made a successful transition from the purely relief phase of the 1980s to Area Development programs of today.

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103,782 children in program. In meeting its mission of brining about a holistic transformation of the lives of the poor, WVE has adopted an additive strategy of growth (meaning both geographical expansion and functional growth) and made a successful transition from the purely relief phase of the 1980s to Area Development programs of today.

At the center of WVE's multiple interventions, there lies food security, a program which is based on the twin objectives of contributing significantly towards the attainment of sustainable household food security and enhancing household copping ability in the future. To achieve these objectives, WVE has adopted the following key interventions:

1. Increased food production;
2. Improved access to food;
3. Improved utilization of food and;
4. Increased asset building activities among target households to ensure future food security;

Since late 1980's, WVE has been conducting a series of reviews of its operations and their impacts on the lives of the communities that it attempts to transform. These reviews have benefited from various reports and studies undertaken at different times. However, further research is required to investigate whether WVE has made a difference in the areas it has been operating over years. Moreover, there is a need to demonstrate the contributions of NGOs to household food security in particular, and to the national economy, in general. This study attempts to bridge this gap. As such, the study signifies a typical joint effort of WVE and CRDA and is in line with CRDA's goal of generating and disseminating information about the contributions of member NGO's and problems they encounter in realizing their visions and missions. The CRDA has already made clear in its Silver Jubilee Anniversary publication, that there is a lack of quantitative information regarding the total contribution of NGOs to development and the implications of this for changing the quality of life of the direct beneficiaries.

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WVE ?

This study attempts to investigate whether an NGO has made a difference in the areas it operates. It examines what strategies have been put in place, what has, so far, been achieved, what problems have been encountered and how the programs have impacted household livelihood security and the environment.

The specific objective of this study is;

1. To investigate whether significant changes have been brought about in the livelihood security of the direct beneficiaries resulting from holistic intervention of WVE.
2. To assess how the various interventions in an ADP have contributed to improvements in the food security status of the poor.
3. To identify and analyze major constraints to the realization of the vision of WVE in a given ADP.
4. To draw implications for other NGOs and explore options available in addressing major constraints on the operations of the voluntary sector.

Although it is beyond the scope of this study to cover the total contributions of NGOs to development, the case of WVE can provide insights into what NGOs are capable of doing, what factors constrain their operations and what policy measures are required to exploit the full potentials of NGOs.

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The data for this study have come from two major sources, namely participatory rural appraisal (including secondary sources) and a household survey covering 502 households selected from the case study ADPs of Antsokia, Kemissie and Mehal Meda. In addition, the health and nutritional surveys of the ADPs and other primary reports of WVE are investigated.

The fieldwork was undertaken at a time when the study ADPs were experiencing an abnormal situation, as it is currently the case with some parts of Ethiopia. That is, repeated drought and erratic rainfall have led to food shortages, which have resulted in large-scale distribution of relief food in the study ADPs. Besides, the local population has

studied ?

- Community
- the people in the area have

Please mention the period covered by the ADPs projects. Impact is studied in a time frame.

developed a dependency syndrome and a tendency to distort information in expectation of assistance from NGOs and the government. Even under normal circumstances, peasants tend to under-report their incomes and assets because of fear tax increases and of possible redistribution of land. Moreover, the fieldwork was undertaken during the rainy season when the roads were very muddy and when some peasant administrations were inaccessible even by foot.

The major findings of the household survey can be summarized as follows. The ADPs have achieved relatively high level of literacy. The household survey has suggested that the literacy rate (36.3%) in the ADPs is quite higher than the national average (26.6%) and than the zonal averages (North Showa 18.8% and Oromiya Zone, 7.3%). For individual ADPs, the literacy rates were estimated at 59.6% for Mehal Meda, 34% for Antsokia and 21.3% for Kemissie ADP.

The majority of the households in the ADPs have gained access to potable water. According to the household survey, proportionately more households have access to potable water than households at the national and zonal levels. As much as 77% of sampled households reported access to potable water as compared to 15% at the national level, 26% in North Showa, and 14% in Oromiya zone.

A relatively high degree of improvement in health conditions has been achieved in Antsokia, in particular. They're only, 9% of sampled households complained about major health problems during the two months preceding the survey. This compares favorably with 35% at the national level. In addition, a majority (60% sampled households) reported decreases in health problems during the period when area development program was implemented (1990-2000). This suggests that much progress has been registered in Antsokia as compared to what was the case in mid 1980s when it was reported that the local people suffered from 'high incidence of diseases like malaria, dysentery and intestinal worms."

These figures are appreciable. However, it would be a more informative achievement if situations are compared to the previous condition. Should we attribute all to the project or not? i.e. Is the 36.3% literacy rate all due to ADPs? (Example)

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Housing conditions have improved. In Antsokia quite a large proportion of sample households (42%) live in corrugated iron sheet houses as compared to about 2% at the national level and about 15% for the Amhara regional state. Households in Antsokia tend to save their cash income in the form of high quality housing facilities, which constitute a valuable asset contributing to a good life. What other factors can explain such an achievement in an area once devastated by famine and environmental degradation other than WVE's prolonged and holistic intervention.

The study has suggested that households keep assets in the form of trees (such as eucalyptus trees) in additional to livestock, corrugated iron sheet houses, etc. In Antsokia a household has about 366 trees grown on an area averaging 1.01 hectares per household. For the three ADPs, about 30% of sampled households had woodlots and kept an average of 253 trees per household on an area averaging 0.9 hectare per household.

The ADPs (Antsokia, in particular) have contributed to improved household access to basic facilities. Major services (such as market health institutions, water access, grain mills, are more accessible to farmers in Antsokia than those in the other two ADPs. The average distance from homestead to these services has come to 43 minutes (single trip) in Antsokia as against 54 minutes in Kemissie and 125 minutes in Mehal Meda.

Farmer's awareness about the need for the protection of the environment has improved substantially as suggested by the household survey. In particular, in Antsokia, half of the respondents reported that the individual farmer should take primary responsibility for the protection of the environment. For the three ADPs, 53% believed that the community (rather than NGOs, government or the individual) should shoulder the primary responsibility for conserving the environment.

Crop production, in the reference period, has been adversely affected by the vagaries of nature. Belg cropping (which used to be important in Mehal Meda and Antsokia) has almost been abandoned mainly due to unreliable rainfall. The production of pulses and oil seeds has been substantially reduced. Crop yields have failed much below the zonal

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averages. Teff yield in the ADPs (5.59Q/ha) average 79% of yields in North Showa (7.08Q/ha) and 75% of yield in Oromiya zone (7.46Q/ha). Similar patterns have been observed for other crops. The decline in yields has been corroborated by farmers' opinion survey and by the Nutritional surveys undertaken by the ADPs in most recent years. However, we note that there could be some degree of under reporting of yields by farmers.

Physical factors constitute major constraints to crop production, as confirmed by the household survey and by PRA techniques. The top three most serious constraints to crop production, in order of importance, are: plant pests, flooding and soil fertility losses. Here, it is important to note that the first two have never been adequately addressed by policy-makers. The current extension policy focuses on yield increases through large-scale use of chemical fertilizers and improved seeds.

increased

On the other hand, cash crops have assumed increased importance in Antsokia and Kemissie, where a considerable proportion of sampled households reported increases in yields. In Antsokia, about 27% of sampled households reported increases in the production of fruits and vegetables over the period 1990-2000. Major constraints to the cultivation of cash crops have included increased prevalence of plant pests and diseases (as in the case of Antsokia onions), land shortages, untimely supplies of seeds (as in the case of potatoes in Mehal-Meda) and market problems.

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Household income has been found to be low as per expectation? Income per household averaged Birr 1550 during the 12 months preceding the survey, while total expenditure averaged (for the three ADPs) Br. 1535 per household over the same period. This brings the saving rate to a mere 1%.

Both income and expenditure have varied widely (among sampled households) as suggested by the standard deviation. Obviously, variation of income suggests variation in consumption and consequently, possible seasonal variation in the nutritional intake of

→ Is the survey year a representative year (e.g. in terms of weather and impacts on agriculture)? If not this study should have been based on analysis of data from a normal year.

households. The need for household consumption smoothing (say, though consumption credit) is obvious from the study.

There has been a considerable degree of income diversification in the ADPs, in particular, in Antoskia where cash crops have gained importance in the local economy. For the study ADPs the major sources of income are identified as sales of livestock, wages, cash crops, cereals, eucalyptus trees and firewood. In Mehal Meda, the bulk of the households depend on relief food both as a source of income and as a consumption item.

Contrary to expectations, handicraft has remained an important source of income for only very few households. Even in Mehal Meda where the production of banana is said to be important, cottage industry has failed to realize its potentials. The expansion of handicraft has been constrained by factors such as lack of market, credit shortages and limited supplies of raw materials.

? Why it was expected that: Where banana is important source of income, cottage should have been expanded ?

An overwhelming majority of sampled households reported decline in both the sources and amount of cash income received over the period 1990-2000. This could be due to erratic and inadequate rainfall, increased prevalence of pests and diseases, flooding problems, soil degradation, land shortages, and market problems.

Credit , though important for household food security, has remained limited in its supply. The bulk of the households (76%) still rely on the informal sector (friends and relatives, the iqquib, iddir and money lenders) for their credit needs. Most households (81%) needed credit for the purchase of working capital (farm inputs) for the agricultural sector. The survey has suggested that institutional credit has limited impact on the lives of the people. According to the household survey, credit has contributed very little to asset building efforts and to the expansion of trade and handicraft to the extent that the majority are concerned. But some households did benefit from past credit services of WVE (such as the RLS), which are little investigated. On the other hand, Wisdom's current operations in the ADPs, can be recognized as an encouraging attempt to meet the credit needs of the clients.

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! The Word "Suggested" is understood as if ILO study recommends - - - Better use other words like revealed, indicates, etc.

reported food insufficiency

Most sampled households have exhibited negative opinions about food availability. Many reported less than three meals in a day. Similarly, many households reported that they get less food today than what they used to get a decade ago. The majority of the households in the ADPs (70%) currently rely on relief food for their food requirements. However, malnutrition could not be serious as households can cover 87% of cereals requirements from production, purchases, and transfers (including relief food.) It is possible that sampled households (and group discussion) gave biased opinions about food availability situations as suggested elsewhere in the study.

Given the information so far on weather, yield and result of the study given below (nutrition survey), what is the source for this conclusion?

However farmers opinions are, to some extent, corroborated by the health and nutrition surveys of the DAPs undertaken recently. The following conclusions have emerged from these surveys:

1. Belg cropping has almost totally failed.
2. Market purchase and sales of livestock (asset depletion) have become primary sources of food.
3. Copping mechanisms of households have included asset depletion (as mentioned above) decrease in the volume and frequency of meals, wage work sales of firewood, etc.
4. Almost systematic decline of livestock prices and increases of food prices over the period 1994-2000 suggesting systematic decline in food availability and an impending danger.

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Such disappointing trends can be partly attributed to unfavorable moisture conditions, increased prevalence of plant pests and dangerous weeds, increased soil degradation, land shortages and, perhaps, declining rates of return to modern farm inputs. Of these problems, drought and rainfall volatility can be singled out as major factors having devastating effects on food production in the ADPs in recent years.

This is not an appropriate concept in this context.

What is rainfall volatility?

I guess this was to say "productivity" or "response"

Is it really a reliable and comfortable way to compare a situation under such "poor" condition with a National average?

The nutritional status of children has been assessed using the Nutrition Survey Reports of the ADPs. Mixed results have emerged from these surveys. In Kemissie (perhaps, where milk is available) the nutritional status of children has been better than the national average, while in Mehal Meda the nutritional indicators compared unfavorably with the national average. In Antsokia , it is somewhat better in terms of wasting and stunting but almost the same (as the national average) in terms of underweight. Compared with what used to be the case in Antsokia of mid 1980s, the present nutritional status of children can be considered as an achievement attributable largely to WVE's intervention. Anyhow Kemissie ADP is on the way to achieving its target for the stunting ration while Antsokia has yet to go far to achieve its target. In Mehal Meda, where food shortages are highly pronounced, the stunting ratio is much higher than the national average.

distorted !! ?

The results of the household survey have been contaminated with the dependency syndrome of farmers. to the extent that opinions on income and food security are concerned. However, using the quantitative information from the survey and the PRA approach, I am able to reassess the impact of the ADPs.

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One outstanding contribution of the oldest ADP, i.e Antsokia , and Kemissie is the introduction of agro-forestry and garden crops. I consider this as an outstanding achievement, which can be categorized as " an NGO- induced agricultural transformation". This is an emerging intensification model that should be replicated elsewhere. Agro-forestry and garden crop schemes have certain relative advantages that make them attractive in the Ethiopian context. They promote income diversification efforts of farmers, rehabilitate the environment, save scarce land as high value crops are cultivated create employment opportunities during slack seasons, and empower women and children.

Adopters of agro forestry schemes are found to be better off than non-adopters in terms of asset building and per capita income. However, why some farmers adopt while other are not is an agenda for future research. People in the same agro ecological system have exhibited different rates of adoption.

Why it was not possible to put a figure here to indicate such differences ?

The food security status of households in Antsokia, in particular, has been assessed. Three different quantitative approaches were employed to determine access to food. All the three approaches suggested that many households in Antsokia have access to food. The PRA approach lends support to this conclusion. This finding contradicts the biased opinions of farmers indicated in household survey.

The implications of the findings of this study are analyzed and recommendations given in the concluding part of the paper.

↳ The issue is, however, relative access. What level ?

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ABBREVIATIONS

ADP	Area Development Program
CIP	Children in Program
CRDA	Christian Relief and Development Association
DPPC	Disaster Prevention & Preparedness Commission
HH	Household
IGs	Interest groups
MICAH	Micronutrient Initiative & Health
SGs	Solidarity Groups
SRS	Sponsor Relation Services
WVE	World Vision Ethiopia

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1. INTRODUCTION

Sub-Saharan Africa has remained poorer that what is used to be 30 years ago. The state used to play a predominant role in Africa's development in the 1960s and 1970s. The private sector has received increased attention since early 1980s. However, neither the state nor the private sector has succeeded to reduce ever-deepening poverty in Africa. The third sector (the voluntary sector) or civil society has emerged as an important development actor, since the 1980s. In Ethiopia, NGOs came to the picture in mid-1990s, when the country faced a drought-induced famine. The 1990s saw significant growth in the number of NGOs operating in Ethiopia. In particular, the number of local NGOs has increased substantially since 1991. However, there has been limited information about the contributions of NGOs to economic and social development of the country and about the constraints they have encountered. In particular, the literature lacks quantitative information on the food security status of households benefiting from NGO programs. There is a need to undertake a holistic, comprehensive, and in-depth study of the impact of an NGO's intervention in household food and livelihoods security

World Vision Ethiopia (WVE) is a Christian, Humanitarian, Non-Governmental Organization working in more than 100 countries worldwide. Its mission to is bring about a holistic transformation of the lives of poor people in the countries it operates. World Vision raises fund through its offices known as Support Offices (SOs), which are located mostly in developed countries. Very often, government grants are also accessed through these offices and channeled to respective operational offices which inmost cases are located in developing countries.

Since late 1980s, WVE has been conducting a series of reviews of its operations and their impacts in transforming the lives of the communities it serves. These reviews and periodic self-evaluation processes have revealed the necessity of undertaking community based sustainable development efforts aimed at transforming the lives of the target population. Since 1994 WVE has adopted what is know as " Area Development Programs". Currently, there are 14 projects or Area Development Programs (ADPs), in

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the country. These programs focus on a clearly identified goal: enhancing household food security in the operational areas. The development interventions address a wide spectrum of the socio-economic needs of the communities, including the promotion of agricultural production, increasing household income through micro enterprise promotion of various kinds, facilitating education services for school age children and facilitating health services for the entire community.

WV is an active member of the umbrella organization of NGOs, Christian Relief and Development Association (CRDA). As a member, it closely works with CRDA in different areas. This research in particular, will be a typical joint effort of CRDA and WVE to substantiate the contributions of NGOs in the pursuit of attaining household food and livelihoods security in the country and enhancing the growth of the national economy.

CRDA gives a number of services for its member agencies. These services include: program support services, training, mentoring, information services and networking and advocacy.

In the areas of program support CRDA endeavors to build capacities among nascent indigenous NGOs by funding their activities, particularly in the areas of institutional capacity building and program implementation. Training, likewise, is conducted in the form of seminars and workshops to upgrade the capacity of members in planning and implementing programs. The monitoring services include facilitation of on-job training; designing, monitoring and evaluation systems; assistance in program review; development of management systems; and providing short-term consultancy. Other key services of CRDA include, data collections, generation, sharing, dissemination of information and networking within its members and with other governmental and multi-lateral organizations. In the areas of networking and advocacy, CRDA creates forums and opportunities for its members to express their views and concerns. It handles this particular service in different ways. The outstanding mechanisms are: 1) NGO-Government Relations task force meetings; 2) General and membership meetings and 3) Working/interest group meetings.

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CRDA has now developed clearly defined vision, mission, values and strategic aims that define its roles in the near future taking into account policy environment, community needs and members interests. These are outcomes of its Strategic Planning Review, which prescribed, among others, that CRDA should foster undertaking of "... organized and well defined activities in areas such as ... information generation and dissemination..." (CRDA Silver Jubilee Anniversary Issue: 1998:34-36). Thus, there is a need to undertake a joint research on the subjects of common interest. The purpose of this study is to address this need.

— Is that not a chapter?

The rest of this paper is organized as follows. The second section presents statement of the problem and formulates objectives and methodologies of the study. The third section develops a conceptual framework of the study with reference to household food security and role of NGOs in development. It also reviews the legal framework of NGOs operating in Ethiopia. This is followed by an overview of the profile and mission of CRDA and WVE (section 4). The following sections (section 5 to 8) present the backgrounds of the study ADPs and discuss their major activities and reported achievements. This is followed by presentation of the results of the household survey (sections 9 to 15). A synthesis of the study is presented in section 16. The final section discusses major issues and provides conclusions and recommendations.

Logically Conceptual framework is more suited as part of methodology.

e.g. "food security" is a concept.
- you define it as a concept; then
- mention in methodology how you assess it, measure it, etc.

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PART I: PURPOSE OF THE STUDY, METHODOLOGY AND CONCEPTUAL ISSUES

2. RESEARCH ISSUES AND METHODOLOGY

2.1 Statement of the Problem

NGOs have been playing an important role in the Ethiopian economy in general and in food security improvement, in particular since mid-1980s. However, information on the contributions of the NGOs to improvement in the livelihoods of the direct beneficiaries from their programs is lacking as clearly indicated by CRDA:

> It is unfortunate that data are lacking to show quantitatively the total contribution of NGOs to development and the implications of this for changing the quality of life of the direct beneficiaries (CRDA 1998:9).

Many NGOs have gone through different phases since their conspicuous emergence in mid-1980s, a time when the country was hit by near-disastrous drought and famine. Since late 1980s, many have attempted to pay more attention to long-term development of the country than concentrating their resources on relief activities. However, drought (which occurs about every three years) has become chronic and the demand for relief assistance still persists. In the light of this, one may wonder whether the developmental efforts of NGOs have failed to pay off and whether it is feasible (in the Ethiopian context) to make a successful transition from relief efforts to developmental activities. In short, there is a need to address one question: have NGOs made a difference in areas they have been operating for years?

Moreover, NGOs like WVE need to make a strategic decision about the feasibility of staying long in an extremely low potential area like Mehal-Meda ADP, where the provision of relief food has become a major component of its activities over a long period. Should WVE focus on relatively potential areas?

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NGOs do not operate in a political vacuum. The effectiveness of their interventions depend, to some extent, on prevailing policy environment and on the extent to which they are able to work with governments without compromising on their vision of empowering the poor and improving their livelihoods. However, there is limited information on the relationships between NGOs and government departments and officials at the local level, the effect of policies on the performances of a program, and on practices that are proved to be effective in dealing with policy-related problems.

In spite of the massive evaluation reports and impact analyses that have been undertaken in the last decade, there have been limited studies focusing on the impact of an NGO operations on the food security positions of households in program or project areas. Most studies have concentrated on the performance of a particular sector (e.g. saving and credit or health) or on a set of sectors without explicitly and quantitatively investigating program impact on household food security positions. Moreover, existing empirical studies are most often devoid of a conceptual framework. There is a need to undertake a holistic, comprehensive, and in-depth study of the impact of WVE's intervention in household livelihoods security.

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2.2 Purpose Of The Study

The purpose of this study is to address the issues raised above concerning the contributions of NGOs to improvements in the livelihoods of the direct beneficiaries of their programmes and projects as illustrated by the case of WVE. In general, the study attempts to investigate what strategies have been put in place, what has so far been achieved, what problems have been encountered and how the ADPs have impacted household livelihood security and the environment. The study attempted to examine whether WVE has significantly contributed to improvement in the welfare positions or livelihoods of households in three ADPs.

The specific objectives of the study are:

1. To investigate whether significant changes have been brought about in the livelihoods security of the direct beneficiaries resulting from holistic intervention by WVE.

2. To assess how the various interventions in an ADP have contributed to improvements in the food security status of the poor.

3. To identify and analyze major constraints to the realization of the vision of WVE in a given ADP.

4. To draw implications for other NGOs and explore options available in addressing major constraints to the operations of the voluntary sector.

2.3 Methodology

The following three ADPs are selected to undertake case studies: **Antsokia-Gemza, Kemissie**, and **Mehal-Meda** in Amhara Region.

In the absence of a suitable baseline survey (food security situation before WVE intervened in the case study ADPs), it is imperative to use different but complementary approaches to generate the required data and information. More specifically, both qualitative and quantitative methods are used to collect the required data and information.

Three major types of data collection techniques were employed during the study period. First, secondary sources (in particular documents of the ADP) are examined. For example, data on the nutritional status of children are obtained from the ADP's periodic Nutrition Surveys. Second, household surveys were undertaken in the study ADPs. Third participatory rural appraisal (PRA) methods were employed in order to compliment the household survey.

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Household Survey

The household survey was implemented in the following fashion. Peasant administrations (P. A. s) were first classified into old (established earlier) and new (established relatively recently) ones on the basis of the length of intervention by WVE in a given ADP. Both types were then classified into different categories according to the following indicators: agro-ecology, involvement in WISDOM's credit, physical access, and degree of intensification (see Tables 1, 2, & 3). The degree of intensification was measured in terms of the scope and intensity of activities of WVE, including conservation works, crop diversification, irrigation practices, and availability of social infrastructure.

In drawing sample from the population frame, the following principle was followed: as length of operations of WVE in an ADP is closely associated with the degree of intensification, it is reasonable to draw more samples from older P. A. s than the new ones. By the same logic, Antsokia, the oldest ADP, received more attention in selecting sampled households.

The sample size was determined at 20% of old PAs for the three ADPs. An equal number of PAs (as old PAs) was selected for new PAs. Accordingly, 4 PAs were randomly selected from each of the ADP. All in all, a total of 12 PAs were selected for intensive study (see Tables 1, 2 & 3). Two to three *gots* were randomly selected from each of the selected PAs. In selecting PAs and *gots*, accessibility (at the time of the survey) was taken into account. One PA in Kemissie, in Gerbi-Mesena, and another in Mehal-Meda (Mesele-Mariam) were purposefully selected because of their unique features. Gerbi-Mesena stands out conspicuously from the rest of PAs in Kemissie ADPs in terms of degree of intensification. Mesele-Mariam PA (of Mehal-Meda) is well known for its irrigation scheme. The selected PAs were from rural areas, except Agla- Majete which has some degree of urban influence.

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Having determined the degree of homogeneity of the population frame, we selected sampled households from the actual number of households within selected PAs. The sample size was 2.8% in Kemissie, 3.5% in Antsokia, and 2.8% in Mehal-Meda. This comes to an overall sample size of 3.1% for the three ADPs. Accordingly, a total of 506 households were selected from the three ADPs. A breakdown by P.A gives 183 households in Kemissie, 187 in Antsokia, and 136 households in Mehal-Meda. The actual sample was 502 households (3%) as will been seen below.

The survey instrument consists of questionnaires consisting of 14 modules, which were pre-tested during the pilot survey and revised accordingly. The questionnaires included objective questions and farmers' perception (opinion) about changes in their livelihoods over the period 1990 – 2000. The questionnaires were translated into Amharic before the fieldwork was undertaken. Details of the questionnaires are attached to this paper.

Four types of field visits were made. These were: a familiarization visit, pilot survey, household survey, and an additional visit during the dry season. The last visit has enabled us to observe dry season economic activities, visit areas that were inaccessible during the wet season, and collect missing information. PRA methods were employed during the three visits, side by side with other activities.

Enumerators were carefully selected on the basis of the following criteria: 1) a minimum of 2.00 in the ESLCE (with an exception of one experienced female enumerator whose score was 1.8); 2) some experience in household survey; and 3) absence of long and close attachment to and ADP or to the stakeholders located in the area (e.g. Agricultural Offices). Accordingly a total of 33 enumerators were mobilized after received training (see Annex 1). Sampled households were selected using systematic random sampling of houses from among rows of houses within a got. Sample intervals were determined by taking into account patterns of settlement and the terrain.

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The survey was undertaken during the rainy season, when the roads were muddy and bridges were damaged. This problem was very serious in Antsokia, in particular. There, the principal investigator had to ride a mule that eventually proved to be of no much use.

The survey data were analyzed using SPSS, ~~computer programming technique~~ a computer software called. The survey data were carefully ~~cleaned~~ edited and processed by an experienced data analyst. The response rate was quite high (99.2%). Out of the originally selected 506 households, 4 were rejected (because of incomplete or improperly filled questionnaires) bringing the actual sample to 502 households.

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Table 1: **Sampled P.A. s and Households**

Variables	Kemissie	Antsokia Gemza	Mehal –Meda	Total
No of total P. A. s	32	17	29	78
No of old P. A. s	11	10	11	32
No of New P. A. s	21	7	18	46
Select 20% of old P.A.*	2	2	2	6
Select the same number (2)* From new P. A. s	2	2	2	6
Total no of P.A. s selected	4	4	4	12
Selected P.A. s as % of total	12.5	32.5	13.8	15.4
Total no of hhs in selected P.A.s	6505	5415	4810	16220
Proportion (%) of hhs selected per ADP (from selected P.A. s)	2.8	3.5	2.8	3.1
Selected no of hhs	183	187	136	506

Table 2: **Sample Size by ADP and P. A.**

ADP	Sampled P.A.S.	No. of got per P.A.	Sample size (hhs)
Antsokia-Gemza	Mekdessa	3	64
	Afso-zuria	3	50
	Aselele k/wenber	3	36
	Agla-Majete	3	37
Kemissie	Gerbi-Mesna	3	41
	Bedeno-Sertie	3	44
	Kelo-Chereti	3	45
	Tenkaka-Bechasa	3	53
Mehal-Meda	Mesele-Mariam	2	30
	Negassi-Amba	2	29
	Zigba	2	47
	Sitir-dega	3	30
TOTAL	12	33	506 *

Note: *1. *Because 4-sampled household were rejected in Antsokia-Gemza, actual sample size comes to 502 households. (A response rate of 99.2%).*

Note: 2. Peasant administrations (PA.) are subdivided in to gots.

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Table 3: **Characteristics of Sampled P.A.S**

No.	Peasant Administration	ADP	Distance from ADP camp(km)	Agra-eclogy	Duration of intervention by WVE	Credit from		Relative extent of involvement by WVE	No. of hhs	Land area (ha)
						WVE	WLSDOM			
	Wekidessa	Antsokia	3	W/dega & dega	Long	Yes	No.	High	1107	4062
	Alisa-zuria	"	8	Kolla,w /dega & dega	Long	Yes	No.	High	1599	5990
	Kelele Kelebet-wmber	"	10	Kolla	Long	Yes	No.	High	1392	4523
	Agia-Majete	"	58	Kolla	Short	No.	Yes	Medium	1317	4299
	Serti-Mesna	Kemissie	7	Kolla	Long	Yes	No.	High	1690	5000
	Bedeno-Sertie	"	30	W/dega	Short	No.	Yes	Medium	1477	3125
	Kelo-chereti	"	5	Kolla	Long	Yes	No.	Medium	1460	2500
	Tenkaka-Bechasa	"	47	W/dega	Short	No.	No.	Littlle	1878	1280
	Weselе-Mariam	Mehal-Meda	20	Dega	Long	Yes	No.	High	984	n.a.
	Negass-tenbu	"	5	Dega	Short	Yes	Yes	Medium	1049	n.a
	Ligha	"	35	Dega	Short	No.	No.	Little	1694	n.a.
	Sefer-dega	"	37	W/deag	Short	No.	No.	Little	1083	n.a.

Note: the term " long " stands for the relative duration of an ADP's intervention writing a PA. The term " short stand for the opposite situation. The term " high" refers to the extent of intensity of intervention, while " medium" stands for lower intensity. The classification is based on information given by the ADPs.

Source:

Participatory Rural Appraisal

Participatory Rural Appraisal (PRA) is far from being rigid (see Annex). It is rather characterized by ingenuity and flexibility. Memorized checklist can replace written checklist. Qualitative research, unlike quantitative research, does not rely on probability sampling directed at representatives. Moreover, there are situations where convenience sampling would be appropriate, where advantage is taken of cases, events, situations or informants that are close at hand. (Punch 1998, Mikkelsen 1995, Frankenberager 1992).

For the purpose of this study a few appropriate methods of PRA are selected among the many that are available (see Mikkelsen 1995: 71). Accordingly, in addition to secondary sources, we relied on the following methods: 1) direct observation by the principal researcher; 2) investigation of key indicators; and 3) semi-structured interviews.

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The principal investigator has undertaken direct observation during the multiple visits he made to the study ADPs. Inaccessible P.A.s were reached on foot and by riding a mule.

For this study, the checklist for rapid appraisal basically reflects questions included in the structured questionnaires for the household survey. The group discussions were conducted in the form of dialogue rather than in a question-answer manner. The following is only a list of main issues presented at the group discussion held for the purpose of provoking discussions (Detailed questions arise from the discussion itself);

- As elderly persons how do you compare the physical environment today and environment during your childhood?
- What are the major problems of this village with respect to agricultural activities, human health situations, marketing, and service deliveries?
- Would you compare life today with life ten years ago? Please be specific on food security, in particular and livelihoods of the people in general.
- How do you try to overcome your problems?
- How do you view WVE's activities in your village? What opinions do you have concerning specific activities of WVE like credit?
- We have discussed a lot of things: you have pointed out all your problems. What is to be done, on your part.

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Problems Encountered

The lesson we drew from the pilot survey and subsequent field visits is that the target population is in an abnormal situation to the extent that their food security positions are concerned. Currently, an overwhelming majority of the population depends on food aid. Expectations of future food aid are so high that the interviewees deliberately attempt to misinform enumerators about their incomes and possession of assets. They tend to under report their incomes and exaggerate their expenditure.

If you could draw a conclusion such that the population faces an abnormal situation, their food security is at risk, how does you state the interviewee misinform the enumerators ? ?

Several problems were encountered in designing the survey. In the first place, it is extremely difficult to select samples from more than two homogeneous groups because of possible overlapping of several characteristics. For example, date of entry is likely to overlap with the degree of intensity; i.e older P.As are likely to benefit more from WVE's operations than the newer ones.

How did you overcome this problem.

In the second place, some of the identified characteristics may be irrelevant to a particular ADP. For example, in Antsokia-Gemza ADP, we were told that classification of P.A.s into the well-known agroecological zones does not make much sense as the settlement pattern of the area is such that a typical farmer has plots both in the highlands and lowlands. Similarly, physical access and degree of intensification may not be considered mutually exclusive to the extent that WVE's interventions are concerned. In the third place, a given characteristic may not render itself a good criterion for classifying P.A.s into homogeneous groups. For example, in Kemissie and Mehal-Meda ADPs we were told that there are no conspicuous differences between old and new P.A.s to the extent that WVE's impact on household food security positions is concerned.

→ are irrelevant or what?

↓

This is a report.

In analyzing the data, different types of comparisons are made. First data for one ADP are compared with data for the other ADPs, taking into account differences in agro-ecological systems. In addition, cross-section data are pooled to arrive at aggregate data for the three ADPs. Then, information for each of the ADP is compared with information on total ADPs. Second, the performances of the ADPs are compared with national and/or zonal averages to investigate whether WVE has made a difference in the woredas it operates. This exercise is undertaken only to the extent that availability of zonal and national-level data permit. Third, P.A.s are classified into two broad categories, i.e. old and new (recently covered by WVE), and are compared in order to investigate the hypothesis that longer duration of WVE's activities is positively associated with greater intensity and greater impact. Fourth, depending on data availability, dynamic analysis is undertaken with a view to investigating time-wise changes in household food security positions. In short, the method of analysis adopted in this study can be classified into:

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inter-and intra-ADP analysis combined with comparison with zonal national level performance and with dynamic analysis. For this purposes I used cross-section data, pooled data, and time series data (where available).

The definitions of relevant concepts and indicators are provided in Annex 3.

This was already given on page 3, but also differ. Why ?

Organization of the Paper

This paper is organized into six parts. The first part presents the objectives of the study, formulates research methodology and discusses conceptual issues pertaining to household food security. The second part presents an overview the role of NGOs in the development process in Ethiopia and highlights legal issues pertaining to their operations. This is followed by a profile of CRDA and an overview of WVE's Vision mission and strategies for promoting household food security. The third part presents the backgrounds of the study ADPs and summarizes major activities as reported by the ADPs themselves. The fourth part present the results of the household survey. ~~The following~~ five part presents a synthesis of the study by focusing on agro forestry schemes and garden crops introduced by WVE in Antsokia and Kemissie. Using a conceptual formwork developed by the author, part V introduces the idea of " NGO-induced agricultural intensification and draws implications for household food security. The final part draws conclusions and gives recommendations.

Conceptual Issues Pertaining to Household Food Security[1]

A lot has been written about the definition and concept of food security in the context of the Ethiopia. The purpose of this sub-section is not to repeat what is already well known. It is rather to look at areas which are relevant to this study and which most often received limited attention. The many definitions and conceptual models all agree that the key defining characteristics of household food security is secure access at all times to sufficient food. Therefore, in analyzing household food security, we recognize the following key concepts: **sufficiency, access, security,** and **time.**

[1]This section draws heavily from authoritative work of Maxwell and Frankenber (1992)

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This part ~~is~~ extended over 5 pages. Why not shorter ?

Concept is better if put at the start of the part of methodology !

Not with standing the difficulty of measurement, an important aspect of assessing whether people have access to enough food is to ask how far they fall below the threshold. A nutritional intake of 225 kg of grain equivalent per person (per year) can be taken as a benchmark for measuring the deviation of actual food consumption from the acceptable standard.

Although it is difficult to adequately define " enough food", it is important to: (1) initially concentrate on calorie intake; (2) define needs not just for survival, but also for an active, healthy life; (3) assess not just the fact of a shortfall below the standard but also its gravity; and (4) begin with individual needs and build up to the household.

The access approach (to the analysis of food security) derives from A.K. Sen's (1981) entitlement framework, which provides a systematic approach to the definition and assessment of vulnerability. In a market economy, the entitlement relations of individuals are determined by what they own, what they produce, what they can trade, and what they inherit or given (Maxwell and Frankenberger 1992). Using the entitlement framework, Sen demonstrated that a decline in food availability was neither necessary nor sufficient to create hunger. However, an approach which emphasizes Food Entitlement Decline (FED) is not necessarily inconsistent with one that emphasizes Food Availability Decline (FAD), since a food production decline crisis may lead both to reduced nominal income and higher food prices. Thus, " food availability remains a key issue in food security" (Maxwell & Frankenberger 1992: 12).

Sen's original analysis has been criticized and extended in subsequent writings in several ways. For example, the original analysis is household centered, i.e it disregards intra- household issues and community-level relations. In particular, the non-market rights and obligations of the household are disregarded. In addition, the original entitlement framework has no temporal dimension. Consequential, the analysis's is a historical and cannot account for changing vulnerability to entitlement failure. Moreover, no attention is given to the significance of cultural preferences and tastes in determining voluntary under-consumption even when entitlement is adequate.

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An important extension to entitlement theory has been provided by Swift (1989). Swift's analysis focuses on the role of investments, stores and social claims in determining household vulnerability to famine. He argues that when households are able to generate a surplus over and above their basic food requirements, the excess resources are diverted into assets (such as investment, stores and social claims), which can be drawn when households face a crisis. In this model, potential support from the community is an important asset which households use as a buffer against entitlement failure.

Accordingly, the vulnerability of the household will be a function of both immediate entitlement failure and the extent to which existing buffers have been exhausted. The latter is a function of the frequency, intensity, and duration of previous crisis exposure (Marxwell & Frankenburger 1992).

Security is another concept relevant to the definition and concept of food security. This builds son the idea of vulnerability to entitlement failure. A vulnerable household is the one exposed to risk of entitlement failure. That is why food insecurity is more often defined in terms of risk (Maxwell & Frankenberger 1992). Thus Phillips and Taylor (1990) thought food insecurity as arising " from an unfavorable balance between risk and insurance". Similarly Von Braun (1990) conceived food insecurity as " the risk of an ongoing lack of access by people to the food they need".

Risk of losing access to food arises from different sources (see annex 4). These include: (1) variability in crop production and food supply, (2) market and price variability, (3) loss of employment and wage earnings, and (4) health problems and morbidity (Maxwell & Frnakenburger 1992) .

For example, drought mainly affects the capacity of households to turn productive assets into command over food. As such, it can be classified as income risk. However, it may also affect productive capital (say) by causing the death of livestock.

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Shocks associated with food insecurity can be classified into (1) work shock (work changes abruptly, say, due to illness), (2) output shocks (such as crop failure or sudden drop of crop price: (3) food shocks (lack of availability of food in the market or sudden rise in food prices); (4) asset shocks (unanticipated drop in the quality and quantity of assets, e.g. death of livestock or theft of asset; and AIDS shocks (a sudden drop in the productive capacity of the household) (Maxwell & Frankenberger 1992).

Assets and risks are closely linked. Most food secure households are those, which achieve adequate access to food while using only a small proportion of available resource. On the other hand, the most insecure are those failing to achieve adequate access even by devoting large proportion of available resources to food.

The likelihood of future entitlement failure can be delayed or prevented by building assets at the current time. Asset can be built in different ways, including reduction of current consumption, getting access to credit and investment in social networks (such as iddir). In this connection, it is interesting to suggest that well planned relief food can be used as a means for protecting household assets in times of temporary shocks.

Early warning systems can be employed as a means for " protecting entitlement" through timely and well –targeted distribution of relief food. In this case households having certain assets may get relief food not because they lack the means for meeting their current need for food but because they should be prevented from depleting their assets required for smoothing future consumption. Households need to ensure current access (be it through transfer) without jeopardizing future consumption.

Time is another defining characteristic of food security. " Secure access to enough food at all times" is the accepted definition of food security. Time-wise, it is important to make a distinction between chronic and transitory food insecurity. The latter, which focuses on seasonal and annual variations in household food access, can be subdivided into cyclical and temporary food insecurity. The former takes place when there is a regular pattern in the periodicity of inadequate access to food. The former occurs for a

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limited time because of unforeseen and unpredictable circumstances, like an infrequent drought.

The literature has been silent on the time dimension of long-term analysis of household food insecurity. It was noted by Maxwell & Frankenberger (1992: 33) " the food security literature is sometimes accused of being more concerned with the current state of food in security than with changes over time and underling processes". The case of Antsokia will demonstrate the importance of this point.

The current classification of food inadequacy into chronic and transitory fails to capture long-term trends in sustainable access to food. In short, there is a need to develop a conceptual framework for analyzing (using historical data) inter-generational variations in access to enough food. Long-term sustainability of livelihood security needs more attention.

The recent literature (e.g. see Maxwell & Frankenberger 1992) suggests that food security must be seen as only one dimension of the broader concept of livelihood security (see also Annex 3) sustainable livelihood security is defined as follows; Livelihood is defined as adequate stocks and flows of food and cash to meet basic needs. Security refers to secure ownership of, or access to resources and income-earning activities, including reserves and assets to offset risk, ease shocks and meet contingencies. Sustainable refers to the maintenance or enhancement of resource productivity on a log term basis (A Report made to World Commission on Environment and Development, cited by Maxwell & Frankenberger 1992:28). The livelihood security approach suggests that the achievement of food security is but one sub-set of objectives of improving the quality of life among the poor.

By locating food security within the broader context of livelihood security one can begin asking not how people fail to feed themselves and become food insecure, but rather about the positive strategies they follow to feed themselves. This prompts one to ask what people do (e.g how they diversity their crops) where people fit into the local

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management systems, and what kind of flexibility their overall livelihoods proved them with (e.g flexible uses of social networks) (Maxwell &Frankenbeger 1992).

Thus, the livelihood security approach should be contrasted to the "Food First" a approach (see Annex 5. The objective of the "food first" approach is access to food, while that of sustainable livelihood approach is to secure and sustain livelihood. The point of departure for " food first" approval is failure to subsist, while that of the sustainable livelihood is success in feeding and living. The priority of the former approach is food at the top of a hierarchy of needs, while the latter considers food as one part of a jigsaw of livelihood needs.

A distinction should be made between "coping" and "adapting" strategies of households. The former is a short-term response to an immediate and decline in access to food; the latter, in contrast, involves a permanent change in the mix of ways in which food is acquired, irrespective of the year in question.

Conservation of natural resource base is at the centerpiece of sustainable live-hood security. A program that emphases livelihood security recognizes the possibility that the poor would conserve their natural resource base if they are given the opportunity to do so. This what NGOs like WVE attempt to do.

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Do all households respond to shocks in the same way? Different households respond to the same type of shock (say, drought) in different ways. It is possible to identify three types of households to the extent that response to shocks is concerned. These are (1) enduring households (which maintain household food security on a continuous basis); (2) resilient households (which suffers shocks but recover quickly); and (3) fragile households (which become increasingly insecure in response to shocks) (see Maxwell and Frankenberges 1992).

From the above, we can conclude that food security can no longer be considered uni-dimensional, but must be treated as a multi-objective phenomenon. Although we stick

to the accepted definition ("secure access to enough food at all times") it is possible that different definitions of food security be valid simultaneously. Obviously this could complicate food security planning efforts and analysis.

In the executive summary part two concepts "food security" and "livelihood security" are mentioned.
What is "livelihood security"?
Why not elaborate in section 2a5?

CCRDA

PART II: NGOS AND WVE'S VISION, MISSION, AND STRATEGIES

3. NGOS IN ETHIOPIA: CONCEPT, ROLES, AND LEGAL FRAMEWORKS

3.1 NGOs Contribution to Development.

Perhaps, Ethiopia, more than any developing countries needs interventions by NGOs. This is because of the country's extremely low level of human development, persistent drought (occurring on average, every three years) [2] and serious environmental degradation.

NGOs are expected to bridge the developmental gaps that are left by both the public and private sectors. More over, the ongoing trends in the globalization process (e.g. declining inflows of official development assistance, growing debt burden, rises in the world prices of fuel oil, etc) and economic liberalization efforts would make NGOs increasing indispensable partners in the development efforts of Ethiopia.

Despite their increasing scale operations and growing reputation, NGOs have registered limited contribution to development at the global level. Many small-scale successes have been secured, but the systems and structures, which determine the distribution of power and resources within and between societies, remain largely unchanged. As a result, the impact of NGOs on the lives of poor people is highly localized, and often transitory. It has been observed that, in contrast to NGO programmes, which tend to be good but limited in scope, governmental development efforts are often large in scale but limited in their impact (Edwards & Hulme 1992:13).

This problem can be partly attributed to the failure of NGOs to make the right linkages between their work at the micro-level and the wider systems and structures of which they form a small part (Edwards & Hulme 1992:13). For example, village-level savings and

[2] *See CRDA, Annual Report 1998, page 6.*

credit co-operatives can be undermined by deficiencies in national credit policies. Successful experiments in water supply schemes may not be replicated because the public sector lack the capacity or willingness to adopt new ideas; effective NGO project may remain islands of success in a non-conducive environment. [3] Thus, Edwards and Hulme (1992:14) concluded, "Small-scale NGO projects by themselves will never be enough to secure lasting improvements in the lives of poor people".

Hence, NGOs face this dilemma: haw can they increase their developmental impact without loosing their traditional flexibility, value-base and effectiveness at the local level? But, in the first place, one may wonder why NGOs should focus on the maximization of impact at the national level and scaling-up of operations rather than focusing on their comparative advantage, i.e. voluntarism and values crediting unique quality of relationship in program areas.

3.2 The Concept of NGOs and Their Strategies

There has been a great deal of confusion and misunderstanding concerning the meaning of "NGOs". The following attempts to clarify the concept of "NGOs."

There are two approaches towards the definition of "NGOs": the broad definition and the narrow one. The former holds that every organization in society (which is not part of government) is a non-governmental organization. According to the broad definition. Organizations like labour unions, political groupings, chambers of commerce, professional associations, religious bodies etc. can be considered as NGOs. This definition is problematic because it embraces too many organizations with widely diverging interests and goals.

The narrow definition refers to a specific type of organization working in the field of development with a view to helping people improve their social and economic situations.

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[3] *"If you see a baby drowning you jump in to save it; and if you see a second and a third, you do the same. Soon you are so busy saving drowning babies that you never look up to see that there is someone there throwing these babies in the river" (Ellwood, quoted in Edwards & Hulme 1992:13)*

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This definition, too, is problematic because it is both restrictive and broad. It is restricted because it excludes welfare (e.g. provision of relief food) and environmental concerns. It is broad because it embrace "development", a very broad term that may mean many things.

A better way of defining "NGOs" is to identify their unique characters. Accordingly, Ball and Dunn (1996) propose that non-governmental organizations are organizations having the following key features: voluntarily formed (no provisions in the laws of a country that requires them to be formed or to prevent them from forming), independent, not-for-profit (although employees are paid and board members are reimbursed for legitimate expenses) and not self-serving (i.e. not serving the interests of members or individuals).

This definition excludes other civil society organizations such as labour unions, professional associations, co-operatives, community-based organizations, etc. Political groups, too, are excluded. And yet, the boundary between NGOs and these organizations may remain blurred. For example, both NGOs and political groups claim to serve the interests of society at large. But an important difference between NGOs and purely political groups is that "NGO political activity will frequently stem from a focus on a particular concern" (Ball & Dunn 1996) which NGOs themselves call "advocacy". The activities of political groups, which are most often partisan, frequently stem from a broad and general concern for change.

A conceptual framework is needed to clarify the strategic choices available to different NGOs and help them to make appropriate decisions for the specific realities they face. Accordingly three types of strategies can be distinguished (Edwards & Hulme 1992). These are: 1) **additive strategies**, which imply an increase in the size of the pergramme or organization (i.e. increasing organizational growth [4] 2) **multiplicative**_strategies which do not imply growth but achieve impact through deliberate influence, networking

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[4] *Expansion can take different forms. It maybe* ***geographical*** *(moving into new areas);* ***by horizontal function*** *(adding additional sectoral activities to existing programs); by* ***vertical function*** *(adding* [4] *Expansion can take different forms. It maybe geographical (moving into new areas); by horizontal function (adding additional sectoral activities to existing programs); by vertical function (adding "upstream" or "downstream" activities to existing programs, e.g. adding agricultural processing project to an agricultural production scheme); or, by combination of these forms (Edwards & Hulme 1992:19)*

towards the second strategy, although it has adopted the first one to the extent that the size of membership is concerned. World Vision Ethiopia, too, tilts towards the additive strategies as can be demonstrated by a passage from a document of WVE:

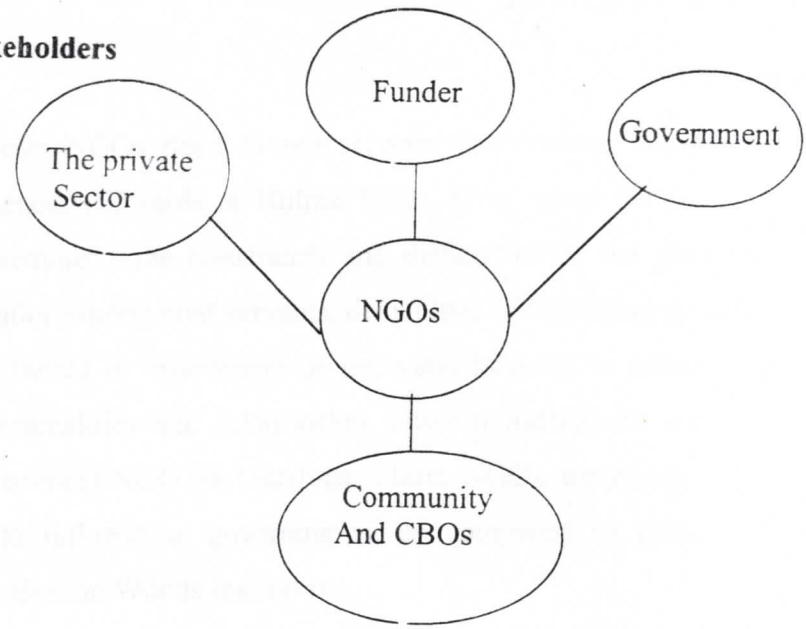
> Twenty-three years ago nobody would have thought of what will come out of WVI/E's Meaning World Vision International Ethiopia, as it was called formerly presence in Ethiopia. Today who can believe that our sponsorship program has grown from USD 569,997 to over USD 13 million in 1997. In the last two decades, the Lord has blessed WVI/E with an **expansive** ministry for transformational development. WVI/E has been able to work with 12 Christian Churches & with communities in 17 woredas (districts) and four regions of the country.

3.3 Working With Government

NGOs do not operate in a vacuum. They operate not only within a given policy environment, but also they are linked to various stakeholders. Among these, we can mention funding, government (in the Ethiopian context both Federal and Regional), the community (and community-based organizations CBO), and the private sector. The following figure shows the relationship between NGOs and these bodies.

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Figure 1 NGOs and Stakeholders



An NGO working with government can be said the one adopting the multiplicative strategy of scaling-up (increasing impact). Traditionally, most NGOs have been suspicious of governments, their relationships varying between benign neglect and outright hostility. Governments often share a similarly suspicious view of NGOs, and their relationship in Africa has been likened to cat and mouse (Edwards & Hulme 1992:16).

Governments and NGOs widely differ from each other in various ways. Government structures are often rigid, hierarchical and autocratic. They have a natural tendency to centralization, bureaucracy and control. NGOs, on the other hand, tend to be distinguished by their flexibility, willingness to innovate, and emphasis on the non-hierarchical values and relationships required to promote true partnership and participation (Edwards & Hulme 1992: 16).

However, governments and NGOs need to enter into a positive and productive relationship aimed at improving the livelihood of the poor. It has been observed, "NGOs ignore government structures at their peril" (Edwards & Hulme 1992:16). Today, an increasing number of NGOs have acknowledged this and are working actively to foster change at various levels. Here, it is important to note that NGOs are not there to replace

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the state, but rather to **influence** the direction of government policy or support existing policies.

In dealing with governments NGOs need to note certain observations derived from reviews of country experiences (Edwards & Hulme 1992). First, when the decision is taken to work within government, the constraints and difficulties of the government system (e.g. limited motivation among civil servants, difficulties of reforming system and structure in the short-run, inertia to experiment or innovate) have to be accepted as a starting point. Second, personalities and relationship between individuals are a vital element in successful government-NGO Partnerships. Third, NGOs are generally small players when it comes to influencing governments, as compared to bilateral and multilateral donors like the Bretton Woods institutes.

The relationships between NGOs and governments have been characterized by certain problems. Some of these problems include (Ball and Dunn 1996):

i) Governments tend to remove the innovative components of NGO`s (e.g. innovations in the area of gender and development, environmental management, group lending schemes) contributions and incorporate them into existing public institutions.

ii) In some cases, governments feel that it is unreasonable and undesirable for public policy to be shaped by the whims and experiments of NGOs.

iii) Some NGOs feel that there are very few communication channels to share the results of their research and innovations with relevant government departments.

iv) Some government officials feel that NGOs are often too secretive about their work and do not wish to share their findings, views and ideas. Also, some officials allege that NGOs are too ready to share these in the public arena before attempting to communicate and discuss with government.

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v) Because of lack of accountability on both sides, the relationship between governments and NGOs may be characterized by mutual suspicion and mistrust.

3. 4 An Overview of NGOs in Ethiopia

The 1990s saw significant growth in the number of registered NGOs, especially local NGOs as indicated in the following table. Between 1993 and 1998, the total number of NGOs operation in Ethiopia increased by 391% (from 55 in 1993 to 270 in 1998) and local NGOs exhibited a high growth rate over this period.

Table 4: **Growth in the Number of NGOs**.

NGOs	1993	1998	Percent growth
International NGOs	44	119	170.5
Local NGOs	11	160	1354.5
Total	55	270	390.9

Source: (Zegeye 2000)

NGOs operate in almost all regional states of the country. However, there has been a high concentration of NGOs and beneficiaries in two regions, i.e. Addis Ababa, Oromiya and SPNNR as indicated in the following table. A total of 262 NGOs provide services to 17,229,312 beneficiaries mainly found in Oromiya (37.7%), Somalia (15.9%), South (15.1%), and Amhara (13.4%).

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Table 5: **The Geographic Distributions of NGOs.**

Region	Number of NGOs	% of NGOs	Number of beneficiaries	% of beneficiciaries
Tigray	18	6.9	1,223,400	7.1
Afar	4	1.5	715,000	4.2
Amhara	35	13.4	2,300,000	13.4
Oromia	56	21.4	6,500,000	37.7
Somalia	17	6.5	2,742,000	15.9
Benishangui	3	1.2	100,000	0.58
Southern peoples	45	17.2	2,600,000	15.1
Harari	3	1.2	5,100	0.03
Gambella	7	2.7	146.440	0.85
Dire- Dawa	5	1.9	22,372	0.13
Addis Ababa	69	26.3	875.000	5.1
Total	262	100	17,229,312	100

Source: Zegeye (2000)

Beneficiaries of NGOs are spread in major regions of the country.

NGOs provide various types of services ranging from water and health to integrated development. Many of then focus on food security through integrated development. From the following table we can observe that integrated development account for 32 percent of the various activities of NGOs while water and health account for 22 percent. Another important activity is social welfare, which accounts for 21 percent of the total activities.

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Table 6: **Activities of NGOs by sectors**

Activities	Percent
Water and health	22
Education and Training	8
Agriculture and soil conservation	4
Integrated Dev't	32
Social welfare	21
Relief and Rehabilitation	9
Others	5

Source: (Zegeye 2000)

NGOs in Ethiopia, though their number is small by African standards, do play a substantial role in the economy. During the 1990-1994 period, NGOs reached 13 to 15 percent of the total population. A survey by DPPC reported that at a time the third sector i.e. NGOs, run about 576 projects with a running cost and investment outlays amounting to Birr 2.5 billion (NGO Community in Ethiopia 2000). According to a CRDA report (CRDA 1996), in 1994 alone NGOs handled 60 percent of all food aid coming to Ethiopia

! Although this is an important issue, better if shortned and main issues are indicated in the context of this study

3.5 The Need for a Legal Framework for NGOs

The purpose of this section is to investigate whether there is a clearly defined, adequate, and relevant legal framework enabling the operations of NGOs in Ethiopia.

The legal and political dimensions of NGOs have remained very problematic since the expansion of NGOs few decades ago. In particular, the following points should be noted:

i) In many countries, the law lags behind the reality of NGO activities and structure. The increasingly diverse activities of NGOs are not reflected in the laws under which they operate.

ii) There are no laws, which are based upon the definition of NGOs set out above.

iii) In some countries the law has ambivalent and restrictive attitude towards the more political activities of NGOs.

iv) In some countries the laws are restrictive. In some cases they disallow the existence of all forms of NGOs. In others, the law provides strict regulatory framework.

In some cases, NGOs through collective action create their own self-regulatory mechanisms. This commonly takes the form of Codes of Ethics or Codes of Conduct (e.g. those produced by the Association of Development Agencies in Bangladesh).

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Many NGOs are unable to realize their declared mission and vision partly because of policy-related constraints. For example, CRDA in its, annual report of 1998 identifies the following as issues that need to be resolved: lack of well-defined legislation regarding the role of NGOs in the country's developmental efforts, problems related to the new regulation concerning the importation of goods by NGOs, work permits by expatriate, delays in signing project agreements, reporting requirements, etc. That is, perhaps, why a meeting of the Multi-Donors Food Security Mission to Ethiopia (which was organized by the World Bank and included CRDA and government representative) included the following statement in the aide memoir:

> ...There are shortcomings in the current laws and policy framework that contribute to uncertainties about their operations and their future role. The team recommends that the policy framework within which NGOs operate should be improved in order that the ability of NGOs to contribute should be fully realized (CRDA 1998:7).

Policy constraints to the contributions of NGOs can be illustrated with reference to NGO-sponsored micro-finance institutions as can be demonstrated by a statement given by CRDA:

> NGOs have been facing difficulties, which hinder the implementation of their micro-finance activities. This is because the regulatory policy of the Government prohibited any micro-finance activity without a license from the National Bank of Ethiopia. In response to the general concern of its membership regarding their micro-credit activities, CRDA opened up a dialogue with the National Bank of Ethiopia to clarify the modalities in which NGOs will be able to operate (CRDA 1998:11).

NGOs have to their credit the innovation idea of savings and credit schemes into rural areas (see Dejene 1999). However, they have been restricted from directly

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participating in the area of finance, since the issue of proclamation No.40 of 1996, which provides a regulatory, framework for the operations of micro-finance institutions.

Moreover, NGOs complain that the government has not put in place financial incentives to promote them (e.g. tax concession in as a reward for philanthropic activities, like in USA) and failed to remove bureaucratic obstacles prevalent at the regional and local levels. In fact, NGOs complain that much more incentives and promotional schemes are designed for the private than for the voluntary sector, which is there to address problems of poverty. Much less encouragement is given to the third sector that what used to be the case during the Imperial era, when voluntary associations were activities. To alleviate these problems, NGOs appreciate implementation of the following meases:, 1, timely response to NGOs recommendations concerning legal framework; 2, the need to set up and NGO-focal point within the government; and 3, provision of financial incentives for individuals and organization supporting the voluntary sector. This paragraph is based on Meet ETV conducted with Dr. Minas Heruy, Executive Director, Hope Enterprise January 11, 2000.

Networking of NGOs has been restricted. The only umbrella organization of diverse NGOs is the CRDA, which was established in early 1970s. Recently the Ministry of Justice has registered a consortium of Micro-Financing Institutions (consisting of institutions supported by regional governments and NGOs) under the civil code articles on civil associations. [5] Otherwise, attempts to for apex organization have not yet succeeded. For example, the confederation of Ethiopian voluntary Organization (CCVO) did not come off the ground as it failed to get registered as an umbrella organization, although the Civil Law does not disallow formation of apex organization by NGOs (Zegeye,2000).

[5] *Proclamation No. 40 of 1996 forbids NGOs direct participation in savings and credit schemes.*

CRDA

Mutual suspicion and mistrust between NGOs and policy makers in Ethiopia can be traced to the 1980s when most NGOs (along with western donors) refrained from participating in two major policy areas of the military government i.e. the resettlement and villagization schemes. Moreover, in late 1980s, NGOs came in direct conflict with the centralized and top-down development approach of the Derg as they switched from relief activities to development and encouraged grassroots-level participatory planning. During the pre-1991 period, the relationships between NGOs and government were characterized by "strict control in terms of area assignment and operation modalities" (Zegeye, 2000).

The post-1991 period saw a relatively conducive policy environment for the registration and operations of NGOs in different parts of the country addressing a wide range of issues pertaining to the livelihood of the poor and disadvantaged groups.

However, the policy environment for the operations of NGOs has been constrained, among other things, by the limitation of the capacity of regional state to discharge the wide range of responsibilities entrusted to them. They are expected to register NGOs, coordinate their activities, monitor and evaluate their programs and projects without having the required institutional capability and motivation.

CCRDA

There are some positive signs towards improving collaborative efforts between NGOs and regional disaster preparedness and prevention bureaus (RDPPB). For example, Oromiya DPPB set up an ad hoc committee composed of NGOs and regional bureau representative to explore ways for promoting collaborative efforts between the two actors in the development process (Oromiya DPPB 1999). The Committee formulated code of conduct (which is similar to the NGO code of conduct reviewed elsewhere in this paper) and set guidelines, which were endorsed by the council of the Regional Government. The guidelines clarified gray areas regarding i) entry points for NGOs; ii) mode of project commencement, implementation, and evaluation; iii) income generation schemes; and iv) support to NGOs by the Regional Government. In particular, regarding the question of income generating activities, the guidelines allowed NGOs to engage in income

What is the contiexgun here? Better if the next sentence elaborates whether this type of subordination/partnership is required or not, or if regions are required/advised to improve their capacity!

generating schemes, provided that these schemes serve the community or contribute to environmental protection. A written permission from Oromiya DPPB is another requirement.

At the national level, there are several guidelines and other regulatory frameworks pertaining to the operations of NGOs in Ethiopia. For example, DPPC's guides on employment generation schemes (DPPC 1997) demand, "no free distribution of aid be allowed to able-bodied disaster-affected community, be feasible (technically, socially, economically, and environmentally), and schemes should be gender –sensitive.

On their part, NGOs have their own weaknesses, which should be addressed. Some of these weaknesses include heavy, dependence on external donors for funding, problems of appreciating the values and culture of the community, and lack of effective advocacy efforts (Zegeye 2000). They formulated strategic plans after starting, operation.

The legal basis of associations in Ethiopia is provided by Article 31 of FDRE. It guarantees the right and freedom of every person to form an association for lawful purposes.

However, so far, the provisions of the constitution are not translated into specific laws governing the operations and behavior of NGOs. The only particular law that exists are Article 404 of the Civil Code of 1960 and Legal Notice 321/19966, which are largely outdated. This law legitimizes the rights of citizens to form associations with a view to obtaining a result other than the securing or sharing of profit. The legal registration and operation of existing NGOs is defined by this law, which rules out possibilities for profit –making and –sharing.

CCRDA

This legal gap has remained a matter of concern for NGOs. In a document, in which they expressed their concern about a gap in the legal system, they underlined that:

> NGOs having no reference to a law or to an act about their identify, rights and even obligations, their operations as well as roles in civil society have been rather tenuous (NGO Community 2000).

NGOs took the initiative and put forward their own recommendations with a view to influencing policy makers decisions concerning forth coming legislation. In the opening part of their position document (NGO community 2000), the NGO Community reiterated their position in the following terms:

> It is the Community's belief that the policy makers of Ethiopia will consider the concerns and preferences raised below as they frame the legislation regarding the NGO sector.

Why do NGOs need a particular legislative framework to enable their operations? They have addressed this question in unequivocal terms: NGOs are in a unique position in term of their mission, which they called, "a public-benefit mission" of NGOs. The claim that their mission should not be confused with that of other legally established entities such as political parties, religious organizations, co-operative societies, mutual aid associations, etc. these groups are there either to further the interests of their members or to further certain goals in which they have particular interest.

NGOs, on the other hand, claim a unique identity, because their mission is to advance public interest, although this role has been overlooked by policy makers:

> The unique identity of NGOs is exemplified by their disinterested engagement to advance the public interest. The current legal regime overlooks this uniqueness and hence is unfit for the NGO sector (NGO Community 2000)

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The document further underlines that NGOs are better placed than other to articulate the needs of the week, to provide services and development in remote areas, to encourage the changes in attitudes and practices necessary to curtain discrimination, to identify and redress threats to environment, and to nurture the productive capacity of the most vulnerable groups such as the disabled or the ladies. Based on the above explanation, the NGOs expressed the wishes to be defined as follows:

> NGOs are voluntary, non-profit, not self-serving, non-governmental, non-partisan and independent organizations or associations involved in the promotion of social justice and developmen [6] NGO Community 2000)

After having expressed their concerns and defined their roles, the NGOs expressed their desire to be recognized as distinct juridical entities with spelt out rights and responsibilities (Zegeye 2000) and identified the following particular legal gaps to be addressed in the forth-coming laws:

I) Tax exemptions (e.g. not only exemptions for capital goods and relief supplies, but also on all items that are required for their office use and related support services).

II) The right to be engaged in income-generating schemes by local NGOs. This will reduce dependence on external donors.

III) The Government should provide support for NGOs (e.g. grants should be provided).

IV) Forthcoming laws should recognize NGO networking and umbrella organizations.

CGRDA

[6] *Here it is interesting to note that the NGOs have clearly indicated their dual roles in society and polity: development and promotion of social justice (advocacy).*

V) Existing regulatory frameworks (e.g. registration procedures, signing of project agreement) should be stream lined.

VI) Transparent and efficient adjudication procedures should be in place (e.g. clear and efficient procedures for addressing grievances and setting up of

NGO, on their part, are often accused of certain shortcomings. For example, at meet ETV program (which was on air on January 11,2000), Tefera Gedu raised the following complaints about some NGOs, 1) too much expenses on overhead costs than on projects meant for the poor, 2) inability to reduce poverty in the target areas; 3) lack of transparency, and 4) some individuals creating opportunities for self- employment under the guise of setting up an NGO. It has been suggested that the NGO code of conduct may address some of these problems.

CCRDA

4. CRDA AND WVE: MISSION, VISION, AND EVOLVING STRATEGIES

4.1 CRDA: A Profile [7]

The Christian Relief and Development Association (CRDA), the first indigenous NGO umbrella organization in Ethiopia, was formed in 1973 (at the height of the so-called "Wello famine") with the primary objective of coordinating, facilitating and supporting the work of its members involved in welfare and development. When formed in 1973, it had thirteen members. Today, CRDA has more than 120 registered NGOs in its membership, about 46 % of officially registered NGOs in Ethiopia. A summary of the organizational expansion and evolution of strategies and activities is provided in the following table. During a period of more than a quarter of a century, CRDA has evolved from a mere provider of relief to victims of drought and famine to an umbrella organization providing information on development and building capacity of local NGOs. Networking has now become one of its primary activities.

CCRDA

[7] This section is a summary of CRDA's Silver Jubilee Anniversary Publication (CRDA 1998a)

Table 7: **Evolving Phases in the Development of CRDA**

Years	Major Events
1973	CRDA was born and its memorandum of Association was drafted and agreed
1974– 76	This was a period of establishment and recognition
1977 – 80	CRDA focused on assisting settlers from Wello and Tigrary
1981 – 82	CRDA made a visible shift from relief towards networking and information sharing
1983 –	The shift of emphasis was reversed to relief. Relief co-ordination became the biggest task of CRDA during this period (due to the near-disastrous drought and famine of the time).
1986 –	Attention was concentrated on strengthening the CRDA secretariat
1987 – 89	New strategies and directions evolved and roles were defined and CRDA was restructured. Although relief and rehabilitation remained CRDA's focus areas, more attention was given to fund raising logistic support, and training. Other important developments included allocation of more relief resources to local NGOs, participatory development, sensitivity to HIV/AIDS, and disaster prevention.
1990 – 93	Decision was made to shift from relief to development . Decided to phase out freight services, increased capacity building assistance to members.
1994 – 96	The need to the capacity of local NGOs came to fore and close link forged with other newly emerged umbrella organizations of NGOs. It recognized the need to engage in a strategic planning process to redefine its vision, mission and principles.
1997 – 98	CRDA had its first Ethiopian Executive Director and its management staff was completely Ethiopianized. The process of the Strategic Planning review was completed and new CRDA vision, mission, and strategic aims were defined. CRDA's role was clearly defined as knowledge and information provider on development issues, and as a provider of capacity building services. With particular emphasis on local NGOs

Source: CRDA 1998b

The secular transformation of CRDA can be gauged from changes in the structure of budget allocation as can be seen from (see table 8 & Figure 2). The switch of emphasis from relief and rehabilitation is indicated by the fact that the share of the former in the total budget dropped from 66 percent during the periods 1973 – 1983 to about 60 percent during 1984-92 and then further dropped to 52 percent in 1993-97. On other hand, the share of development increased from some 27 percent during 1973-83 to 36 percent during 1984-92 and then to 39 percent during 1993-97. The proportion of overhead costs, which showed downwards trends between 1984 and 1992, stood at about 9 percent during 1993-97.

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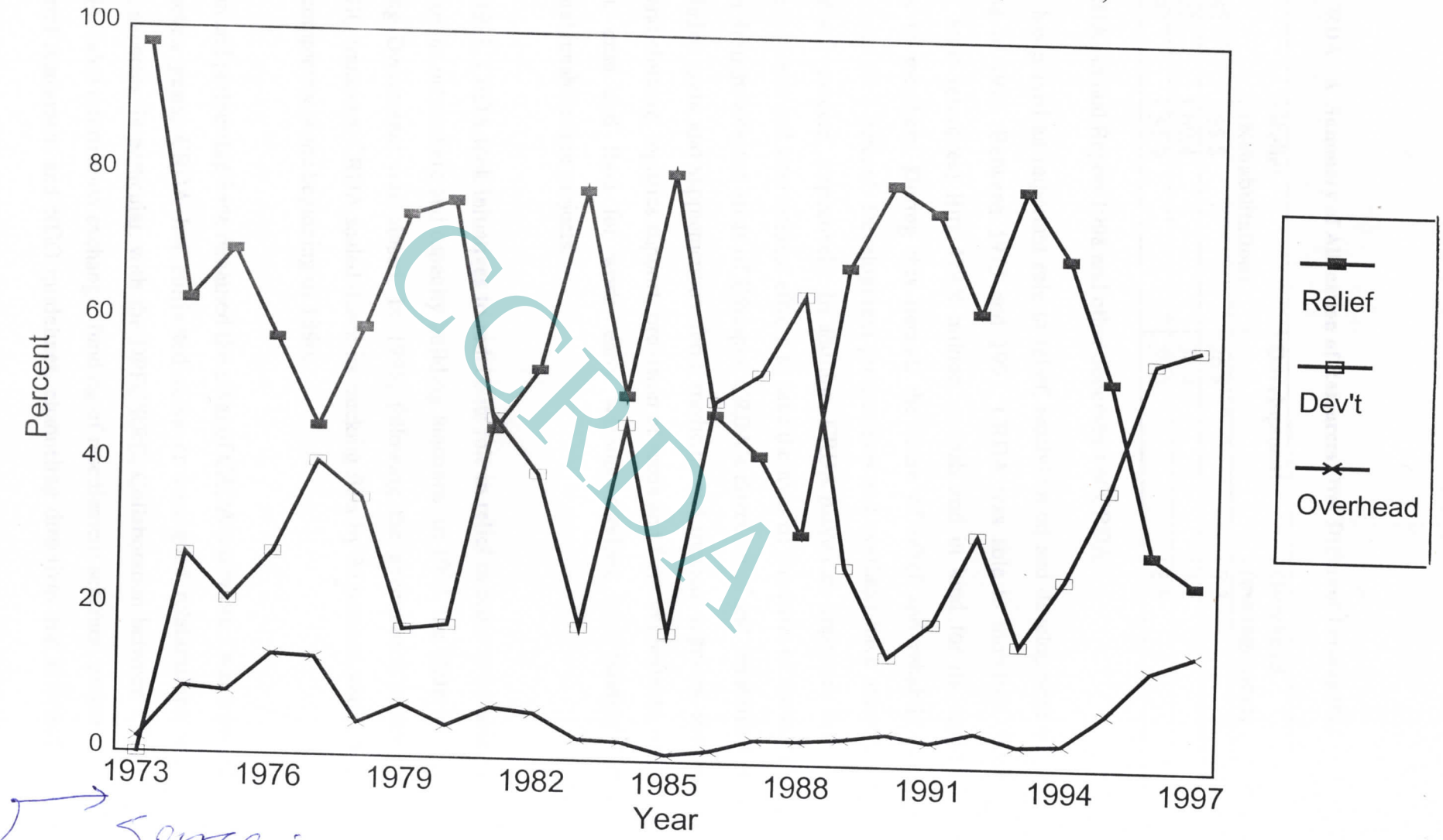
Table 8. Allocation of CRDA's Resource by Type of Program 1973 – 1997 (percent)

Year	Relief (Rehabilitation)	Development	Overhead (management)	Total
1973	97.8	0	2.2	100
1974	63.1	27.7	9.3	100
1975	69.9	21.4	8.7	100
1976	57.9	28.1	13.9	100
1977	45.7	40.7	13.6	100
1978	59.5	35.8	4.7	100
1979	75.0	17.7	7.3	100
1980	77.1	18.4	4.5	100
1981	45.7	47.2	7.1	100
1982	54.1	39.5	6.4	100
1983	78.7	18.4	2.9	100
1984	50.7	46.6	2.7	100
1985	81.2	17.8	1.0	100
1986	48.2	50.1	1.7	100
1987	42.7	54.0	3.3	100
1988	31.8	64.9	3.3	100
1989	68.9	27.4	3.7	100
1990	80.3	15.2	4.5	100
1991	76.6	19.9	3.5	100
1992	63.0	32.1	4.9	100
1993	79.8	17.0	3.2	100
1994	70.5	26.1	3.4	100
1995	53.7	38.6	7.7	100
1996	29.8	56.4	13.8	100
1997	25.6	58.4	15.9	100

Source: CRDA 1998b

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Figure 2 Allocation of CRDA Resource by Type of Program 1973-97 (Percent)



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Source :

Table 9: **CRDA : A Summary of Allocation of Resources Over Different Periods (%)**

Period	Relief (Rehabilitation)	Development	Overhead (management)
1973 – 1983	65.8	26.8	7.3
1984 – 1992	60.4	36.4	3.2
1993 – 1997	51.9	39.3	8.8

Source: CRDA Annual Report 1998 and other documents of CRDA

The CRDA has played an important role in relief, rehabilitation and development since its formation in 1973. Between 1973 and 1997, CRDA was able to mobilize (from foreign and local resources) Birr 479.8 million in cash and in kind for its support programmes to members. During this period, the share of relief and rehabilitation programmes was 59.3 percent. Development programmes and overhead have accounted for 31.3 and 4.2 percent, respectively. In addition, CRDA played an important role in coordinating national and international efforts to save the lives of hundreds of thousands of people in drought-affected areas of Ethiopia. CRDA's direct relief and rehabilitation support included grain and supplementary food, medicine and medical supplies, shelter equipment and clothing, logistics support, provision of seeds and farm implements, oxen replacement, cash and food for work, early warning services, and funding for environmental rehabilitation projects.

Starting in 1993, CRDA took initiatives to reduce its role in relief in order to be able to focus more on its networking and capacity building functions. In 1993, the Material Aid and Shipping Department was closed. In 1995, following the government policy to privatize NGO transport, CRDA scaled down its trucking fleet by 35 percent, and it was phased out completely at the beginning of 1996.

Co-operation and partnership have remained the pillar of CRDA's services. Over a period of twenty-seven years, CRDA has cultivated more or less good relationships with government agencies, in particular, with the DPPC/RRC. Collaboration between CRDA and DPPC included information exchange, funding of resettlement schemes, preparation of the General Agreement and NGO guidelines, channeling directives and information

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from DPPC to NGOs, networking/communication, resource channeling and support to RRC's outreach programs and joint planning partnership.

CRDA has also collaborated with UN and bilateral agencies, mainly in the area of funding, information sharing and discussion on topical issues. CRDA's relations with donors have remained lively and fruitful since 1973. Donors have provided financial and moral support to CRDA. Regarding assistance to its members CRDA has focused on four crucial areas: project funding, training, institutional strengthening and advisory services.

Given these developments, among other things, CRDA carried out Strategic Planning Review in which major stakeholder, including the Government, fully participated. Following, CRDA stakeholders agreed on vision, mission and strategic aims to guide the Association towards this century. These are presented below.

The *Vision* of CRDA is to Contribute to the alleviation of poverty by improving the socio-economic condition of the poor in Ethiopia and empowering them to bring about change.

The *Mission* of CRDA is to strengthen the capabilities of member agencies to help disadvantaged communities and groups to improve their standards of living and their control over their own livelihood on a sustainable basis.

In defining its *Values* CRDA adheres to: 1) Equality among its members; 2) Commitment to participatory development; 3) Adherence to a high level of ethical practices of the voluntary sector; 4) Capacity building support to members targets the poor; 5) Promotion of understanding among its principal stakeholders; 6) The right of all Ethiopians to have adequate access to basic needs required to lead a normal and healthy life; 7) Social justice and equity for all; 8) Commitment to gender equality; and 9) Concern for the environment by all actors in development including the public.

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Two strategic aims were identified and ratified. These are:1) Create an enabling environment for members to increase their contribution to sustained development.

2) Increase the capacity of its members to more effectively plan and implement development projects and programs.

The salient points that have emerged from the Strategic Planning Review are the following:

1. CRDA should aim at improving the working environment of the NGO sector in General, and of its members in particular through forging stronger and more productive Cooperation and Partnership among its major stakeholders, especially between government organization and NGOs. It shall achieve this through more organized and well-defined activities in areas such as representation, advocacy, networking, and information generation and dissemination in a proactive and participatory manner.
2. CRDA should integrate more effectively its training and funding functions with the sole aim of increasing the institutional capacity of its members to undertake sustainable development with special emphasis on poverty alleviation.
3. CRDA should develop strategies that would ensure that its capacity building activities target small local NGOs in particular.
4. CRDA should avoid a direct intervention in relief and rehabilitation, instead it should focus on assisting its members in their relief operations through the provision of relevant information and training. Notwithstanding this, CRDA should involve itself in resource mobilization from within and without to assist its members engaged in relief in times of big emergencies.

CCRDA

4.2 WVE: Phase of Development [8]

World Vision Ethiopia (WVE) began operating in Ethiopia in 1971 with relief operation for Sudanese refugees in southwest Ethiopia and for Meskoko tribesmen of the Ogaden. In 1973 the organization began sponsorship program for 128 children at Hope Enterprises. On March 3, 1975 the organization was officially registered as a non-profiting philanthropic organization in Ethiopia with four staff members. At the initial stage WVE worked in close collaboration with WV-Canada and the SIM (Sudan Interior Mission). In 1975, WVE's annual budget was USD 569,997.

With in a period of one year that is in 1976 its budget grew to USD 2.5 million and staff size increased to 28. In the same year WVE sponsored the first Pastor's Conference in which 91 participants from various denominations took part in the meeting. WVE contributed USD 15,000 towards the fulfillment of the conference objectives.

Between 1977 and 1980 WVE conducted water drilling projects and flourmill programs in various parts of Ethiopia. Between 1980 and 1983 the organization took up relief operation (amounting to USD 24 million) in northern and southern Ethiopia.

It provided immunize relief assistance during the drought and famine of 1984 – 1985. During this time, WVE has adopted the additive strategy of growth, since its inception in 1971. It has increased the size of its programs and has passed through three phases of growth. These are: 1. The relief phase (1984-1985) 2. The rehabilitation phase (1986-1989), and 3. The area Development Program (ADP) phase (since 1990).

CCRDA

[8] Draws from WVE: Past , Present and Future

The **main features** of WVE's food programs include the following:

- Food programs are implemented within the context of an area development program (ADP). There is no program solely dependent on food and no other independent program is funded except ADPs.

- Although food aid is not part of the mechanism to ensure access to food in ADPs, WVE takes a responsive stance in cases of disaster. Accordingly, food may be used both for development activities and relief.

- Food resources are integrated with cash resources to bring about sustainable impact.

- Food programs consist of environmental rehabilitation, agro-forestry infrastructure development, micro-irrigation, earth dam construction, and credit activities. There is a need to shift from large-scale environmental rehabilitation investments to more diversified, micro-level activities in order to reach large number of beneficiaries. There is also a need to bring about household (family) level impacts through effective targeting of program beneficiaries.

- Food program focus on the poorest of the poor, the landless farmers and the unemployed youth.

- Program components are designed to address issues of food availability, access and utilization.

WVE's food security programming has been governed by Area Development programs (ADP) framework since 1998. This framework attempts to be objective-oriented, build early warning capacity, link relief and development, and attempts to objectively monitor progress towards a pre-set goal.

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i) The Relief Phase (1984-1985)

World Vision expended more than USD 100 million to the relief programs in thirteen Nutrition and Health Centers (NHC). The organization saved the lives of tens of thousands of beneficiaries. It gave food to 300,000 victims per month. Furthermore, 141 heavy-duty trucks and 3 aircraft were used to transport food. The staff size grew to 3,522 persons, which included 121 non-nationals. The main objective of this phase was to save the lives of millions of people who were at the brink of starvation. WVE helped to save the lives of tens of thousand of people.

ii) Rehabilitation Phase (1986-1989)

The main goal of WVE's Rehabilitation Program was to revive the productive capacity of the famine-stricken population so that they could produce their own food and engage them selves in a meaningful and durable development efforts.

Beginning from 1986, WVE scaled down its relief program and conducted a rehabilitation program in which 107,510 farm households were provided with 11,050 oxen and 510.5 MT of seeds.

Besides the relief program, between 1975-1994, WVE conducted over 125 Community Development and Child Care Programs and 27 evangelical projects with 12 Christian Churches in the country.

In 1986 staff size was cut down. At he same time, it assessed it past activities and reflected on its achievement. Church partnership projects failed to be sustainable. Projects focused only on few beneficiaries and traditional sponsorship created undesirable dependency. The idea of linking Relief and Development.

The need to take up meaningful community development programs gave rise to the formulation of the CBTP (Community Based Technical Programs). Community Based

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Technical Program is one of the participatory approaches that calls for a direct involvement of the community in program development and implementation and evaluation.

Therefore, the ADP (Area Development Program) was chosen as available means for community based development. ADP is a development approach, which includes active involvement of community, integration of sectoral programs, utilization of non-sponsorship as well as sponsorship funds. Potential and sustainability focused and geared towards community environment. Contrary to other approaches ADP focuses on a specific area with specified members of community engaging themselves into multi-sectoral and integrated development process.

iii) The ADP Phase (1990-To Date)

In 1990 WVE entered a new phase in which the CBTP approach was put into practice in the five ADPs, (Antsokia I, Antsokia II, Omosheleko, Damota I, Damota II). The ADPs were designed to cover about 20 PAs having an estimated 60,000 beneficiaries. The lifespan of each ADP was estimated at 10 years.

As reported in its Annual Report of 1999, WVE has identified the following challenges and concerns, some which pertain to the particular conditions of 1999:

i) The inability to cover some planned activities due to the emergency relief program, which forced the WVE/ADPs to divert their efforts in saving the lives people in the program areas.

ii) Besides Rainfall shortage, large areas of crop field were infested by armyworm.

iii) It was not possible to get experts in the field of irrigation. It took long time to get assistance from other organizations.

If this report was also about evaluation of the ADP (1990 – 1999), these concerns (some of them) seem to be late; in the meantime solutions could be found out timely.

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iv) Frequent replacement of local government staffs affected implementation of our jointly planned programs besides; community contribution in cash form was not up to our expectations.

v) The Etho-Eritrean conflict has continued to be a challenge for Kilte Awlaelo ADP in implementing its program, as there was fear of war out break at the time.

4.3 WVE: Food Security Strategy[9]

The ADP development strategy of WVE can be summarized as follows (WVE 1998 : 25-29):

- **Holistic development** (referring to a transformational development process which treats physical, material, economic and spiritual developments as inseparable components).

- **Community based development** (the community play active role in identifying problems, initiating ideas, participating in planning, implementation, and in, monitoring and evaluation; the community owns and sustains the programs).

- **Sustainable development** (Programs are based on the potentials of an area and they shall be environmentally sound and lasting).

- **Child – focused development** (interventions are child-focused)

- **Compatible development** (Programs should be compatible with government policies and interests of the community).

[9] *This is a summary of WVE (1999) World Vision Ethiopia: Food Security Strategy.*

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- **Networking** (collaboration with development partners)
- **Program efficiency** (proper utilization of resources, proper targeting, proper selection of activities, avoiding duplication of efforts, and avoiding "over investing in a limited area').

WVE has adopted the commonly accepted definition of "food security": people are food secure "when all people, at all times, have both physical and economic access [on a sustainable basis] to sufficient food to meet their dietary needs for a productive and healthy life".

WVE assumes that a daily per capita calorie intake of 2100 kcal is sufficient for productive and healthy life. And a household of six persons may be said food secure if and when it can:

- Produce food amounting to 11 quintals of grain equivalent and have reserve food about 20 per cent over and above this amount; and/or
- Earn cash income (primarily from agriculture and as a matter of focused strategy from gradual diversification away from agriculture) sufficient to purchase the above amount of food; and/or
- Demonstrate the capacity to withstand shocks by accumulating convertible (to cash) resources/assets worth 20 per cent of the food requirement in the household.

WVE's food security objective in the Area Development Programs (ADPs) are:

1. To contribute significantly towards the attainment of sustainable household food security in WVE's program areas in the medium to long term, and [10]
2. Enhance household coping ability to future food shortages.

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10 The overall goal of WVE ADPs is to reach about 300,000 households who live in 14 ADPs areas with sustainable household food security interventions between 1998-2002. This implies that about two-thirds of ADP target households will have attained food security (expressed as having or accessing about 11 qt of grain equivalent and about 20 per cent reserve for immediate needs during emergency).

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Given limited resources, WVE gives priority to selected interventions on the basis of the following criteria: i) environmental, economic and social sustainability; ii) the extent to which an intervention utilizes local resources and indigenous knowledge systems; iii) the extent of complementarily relations among interventions (backward and forward linkages); and iv) the extent to which an intervention satisfies the principle: "minimum input for maximum impact".

Few principles guide the choice of **interventions** in food security programmes. That is, WVE has adopted the following components (of food security) as key interventions: 1) increased food production (improved direct entitlement through irrigation development, capacity building, provision of agricultural inputs , strengthening early warning system; 2) improved access to food (indirect entitlement to food through increased purchasing power and social/physical access); 3) improved utilization of food (improved post harvest utilization through training in sanitary practices and efficient utilization); 4) asset building to ensure future food security (including livestock, housing, perennial crops, interest bearing saving accounts, community assets.

Currently, WVE runs 13 ADPs in 5 regional states, having 10 zones and in 20 woredas. The target population amounts to 2,672,700 (4.2% of Ethiopia's population). In the 14 ADPs, there are 103,782 children in program (see Table 10).

WVE administers quite a large budget by the standards of NGOs operating in Ethiopia. During the fiscal year 1999, a total annual budget of USD 16,659,970 was allocated and out of this, USD 16,053,408 (96.4%) was utilized for program implementation. Budget per target population comes to Birr 52/person/year. (1 USD = 8.32 Birr) In 1999, about 57% of funding came from ~~came from~~ eight countries 9 sponsorship budget and the rest came from non-sponsorship sources like relief and rehabilitation funds, community development funds etc. (Annual Program Achievement Report 1999)

→ Is this net of the overhead program costs?
Are all the beneficiaries 2.67 million considered all at a time for activities during the year 1999?

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Table 10: **WVE: ADPs by Region and Beneficiaries**

No	WVE/ADPs	Location Region, Zone & Woreda			Number Of CIP	Targeted Population
		Region	Zone	Woreda		
1	Saatusa	South	North-Omo	Borda-	10152	152,542
2	Damota-I	South	Wolayita	Abaya&chencha	19572	288,677
3	Shone	South	Hadia	Humbo & sodo Zuria	5432	192,450
4	Shenkolla	South	Hadia	Badwacho	5453	307,261
5	Omosheleko	South	Kembata, Alaba,Tenmb aro	Soro Omosheleko Soro & Quchabira	10005	274,786
6	Mehal-Meda	Amhara	North Shoe	Kera Keya	7500	289,853
7	Antsokia-Gemza	Amhara	North Shoe	Antsokia-Gemza	8929	102,002
8	Kemissie	Amhara	Oromia	Dawa Cheffa &	10000	242.531
9	Adjibar	Amhara		Arthum	3362	189,500
10	Adama	Oromia	South Wollo	Jillie	7000	144,600
11	Tiya	Oromia	East Shoa	Tenta	5827	162,514
12	Kilte Awlaelo	Tigray	West Shoe East Tigray	Bosset & Adam Kersa Kondaltit	9156	321,564
13	A.A Urban	A.A	1 and 4	Atsbi Wunberta & Saesie Tsaedamba	1000	5,500
	Total 13	**5 Reg.**	**10 Zones**	**20 Woredas**	**103,782**	**2,672,700**

Notes: 1. CIP = Children-in-program

2. There are 394 additional CIP from Local sponsorship program

Source: WVE Annual Report 1999.

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PART III: BACKGROUND AND ACTIVITIES OF THE STUDY ADPS

+ Kemissaje + Mehal-Meda ?

5. ANTSOKIA: FIFTEEN YEARS AGO

Because of its unique feature in WVE's attempt in addressing the food insecurity problems of its target population, Antsokia deserves more detailed presentation of its background on the basis of a summary of **Project Proposal for the Antsokia Integrated Agricultural Development**[11] (Henceforth, the Proposal. Moreover, it is hoped that the following review will serve as a sort of baseline survey for Antsokia).

According to the Proposal, the drought and famine of 1984/85 nearly devastated Antsokia woreda, which was the hardest hit of all woredas of Yifatna-Timuga awurgja of the then Shewa province. During this time, livestock population declined by about 50% and the average holding dropped (by about 40%) to 1.8 animals per household. The death toll of livestock included 1,884 head of cattle, 1,081 sheep, 556 goats, and 129 equine. The average loss per household amounted to 2.7 head of cattle, 1.2 small ruminant, and 0.5 chickens. In addition, distressed farmers sold 14% of the cows, 16% of their oxen, and 30% of sheep and goats. The prices obtained were, on average, Birr 61 per head of cattle and Birr 11 per head of small ruminants. It was during this time that World Vision Ethiopia intervened.

At the time of the drought, two health and nutrition centers were opened at Mekoy and Ambowuha. In one month (June 1985) alone, about 49,000 beneficiaries received relief food and some 11,800 persons received blankets and clothing from World Vision Ethiopia (WVE). Some 1,800 people were resettled in western Ethiopia by the former Relief and Rehabilitation Commission.

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[11] See World Vision Ethiopia (1985) Project Proposal for the Antsokia Integrated Agricultural Development, Vol. 1., Submitted to RRC, Addis Ababa, Ethiopia.

The proposal also provides interesting information on the physical background of Antsokia in mid-1980's. The *cheffe* swamp bordering the Antsokia plane to the north, south and east occupied an area of about 45 km^2. The area of the swamp varied from season to season. Seasonal flooding was estimated at about 25km2.

Three agro-ecological zones were identified. Of the total farmers in Antsokia, 17% operated in the highlands, while 18% and 65%, respectively, operated in the mid-highlands and lowlands.

In the mid-1980's sorghum, teff and maize were the major crops grown in the area. Sorghum covered 30% of the total cropped area, while teff and maize covered 25% and 20%, respectively. Other crops occupied 25% of the total area cultivated. Under favorable moisture and soil conditions, the yield of sorghum was 18 quintals per hectare, whereas that of teff was 11 quintals, and maize 18 quintals per hectare. But, because of the drought, yield of sorghum declined by 45% and that of teff and maize by 40% and 20%, respectively.

According to the proposal, the most important limiting factor for crop production was inadequacy and unreliability of rainfall rather than soil fertility. The red loam alluvial soils of the Borkena Valley were designated as "extremely fertile". The major threat to such a good soil was (is) soil erosion, particularly along the plateau escarpment. Flooding caused a serious damage to the soil and rapid loss of cultivable land through erosion of topsoil and formation of wide gullies. Rainfed agriculture dominated, though there were "some traditional irrigation" schemes in the lowlands.

The major grazing area for most of the Antsokia woreda was in the lowlands, mainly in the swampy areas. Nearly all of the dwelling places were (are) situated in the highlands, while cattle were kept overnight at the foot of the hill in corrals. However, small ruminants and equines were kept, over night, in the dwelling places. Cattle were grazed on communal land, and farmers took turns to herd their cattle day and night. Those farmers operating in the uplands (with no grazing land in the lowland) faced acute

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shortages of grazing land. In addition, feed shortage was acute during the growing season (June-November), when most of the land was under crops.

According to the proposal, Antsokia of mid-1980s was deforested through human action. According to elderly men in the woreda, the area was once covered by flourishing forests. But in the mid-1980s, there were only "bare mountains". Human activity had led to "complete devastation of the forests". According to the Proposal, the only vegetation that survived was found in inaccessible areas on the mountain slopes, around churches, grave yards and a few tree plantations of eucalyptus near dwelling places. It was further noted that the process of destruction of the remaining trees and bushes was still continuing unless immediate action was taken to stop it. Otherwise, the Proposal noted, "the consequence would be that reclamation could be virtually impossible". Further, it noted that the natural conditions for forestry development in Antsokia are good and, thus, future development efforts were promising.

In mid-1980's, the population of Antsokia Woreda was estimated at 30,000 persons and a density of 77 persons/km^2. The vast majority of the people lived on the high mountain sides. Because of inter-tribal conflicts and malaria infestation, the Amhara people settled mostly on the mountains and escarpments, while most of the pastoralists (the Oromos) settled in the lowlands.

Literacy rate was estimated at 23% surveyed persons. Literacy campaign centers of the time were converted into formal elementary schools in some parts of the woreda. However, there were only two full-fledged elementary schools (grades 1to 6) and one junior secondary school (7-8). But, these schools were underutilized because of the dispersed settlement patterns, lack of appreciation of the value of education by the local people, and the disruption of normal life resulting from the famine.

Serious health problems were evident in mid-1980's. The local people suffered form "high incidence of diseases like malaria, dysentery and intestinal worms". Prior to the large-scale operations of the "medical services of WVE's nutrition and health centers in

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Mekoy and Antsokia, medical services used to be provided mostly by government clinics at Mekoy and Afso".

The physical infrastructure was grossly lacking. Despite its proximity to the Addis-Dessie road, the woreda capital (Mekoy) had "literally no road, telephone, postal or radio communication services". In August 1983, WVE completed the construction of a road linking Mekoy with the nearby highway.

The supply of potable water was very much limited. Even most of the town people (in Mekoy and Ambowuha) got their water from the nearby streams. Although insufficient, there was a "pipe supply system with two public, stand post for Mekoy".

That was what Antsokia looked like prior to a large-scale intervention of WVE in the area. What about today? We will come back to this question at the end of this paper.

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6. BACKGROUNDS OF THE STUDY ADPS

The study ADPs are found in Amhara regional state to the north of Addis Ababa. Antsokia ADP (which was later extended to Gemza) is located 350 kms to the north of Addis Ababa. Kemissie is located along the Addis-Dessie highway, some 325 kms to the north of the country's capital city. Mehal-Meda ADP is located in an a partly bowl-shaped, rugged, and mountainous part of North Shewa, 282 kms away from Addis Ababa. The land use pattern in Mehal-Meda is such that as much as 34% of the total area constitute grazing land, where mostly highland sheep are kept. Both Antsokia and Kemissie ADPs are located largely within the water shade of the River Borkena, which causes devastating flooding problems among the local population. A significant proportion of Kemissie's land area (66%) is located within lowlands having 3891 ha. of swampy and marshy land. Antsokia's land area is almost equally divided between lowland (45%) and midland (44%), whereas highland accounts for 11% the total area of the ADP. Mean annual precipitation ranged between 800 and 1200 mm for Antsokia and between 400 and 1300 mm for Mehal-Meda. For Kemissie, the annual precipitation averaged 900 mm.

Mixed farming is the single major source of livelihood for the bulk of the population in the study ADPs. Off farm activities are important for only a small proportion of the people, i.e. 10% in Antsokia-Gemza [12] and Kemmissie and 7% in Mehal-Meda. The major crops grown in the ADPs are sorghum, teff and maize in Antsokia and Kemissie and barley, horse beans, and wheat in Mehal-Meda, where belg cropping used to be important until recent years.

The dominant ethnic groups of the ADPs are Amhara in Antsokia (80%) and in Mehal-Meda (almost 100%) and Oromo (97%) in Kemissie. The dominant religions are Orthodox Christians in Antsokia (70%) and Mehal-Meda (99.9%) and Moslem in Kemissie (97%) (Table 11).

[12] The term " Antsokia -Gemza" Refers to the recently enlarged ADP of the original Antsokia. However, in this paper I use the original name, " Antsokia " as a shorter term for Antsokia -Gemza

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Aren't these locations drought prone? Or To which years do the data refer? 800 - 1200 is quite high!

Population-wise, Kemissie, with 203,861 persons, is the largest ADP, followed by Mehal-Meda (155,922 persons). Antsokia has a population of 92,920 persons. Kemissie is also the most densely populated ADP (190 persons per km^2) within the three ADPs. Mehal-Meda, with a density of 92 persons/km^2, is sparsely populated. The background of the study ADPs is summarized Table 11.

Table 11: **Background of the Study ADPs**

Variable	Antsokia	Kemissie	Mehal-Meda
Distance from Addis Ababa (km)	350 (North)	325 (North)	282 (North)
Specific location	Water shade of the River Borkena	Water shade of the River Borkena	Undulating, rugged, & mountainous
Woreda Centre	Mekoy	Kemissie town	Mehal-Meda town
No. of PAs covered	17	32	29
Population	92,920	203,861	155,922
Population density (prsn. km^2)	156	190	92
No. of households	17,095	40,772	34,348
Dominant ethnic group	Amhara (80%)	Oromo (97%)	Amhara (100%)
Dominant religion	Orthodox (70%)	Moslem (97%)	Orthodox (99.85%)
Altitude	Lowland (45%) Midland (44%), Highland (11%).	Lowland (60%) High &Midland (40%)	Dega (61d%), W. Dega (27%), Kolla (12%).
Grazing land	2.8%	5030 ha.	34%
Major crops	Sorghum, teff, maize	Maize, sorghum teff	Barley, horse beans, wheat
Date of establishment of ADP	1984/85 (relief)	1990	1988 (relief)
Land area	59,501 ha.	85,695 ha.	165,671 ha.
Rain fall	800-1200 mm.	900 mm.	400-1300 mm.
Proportion engaged in off-farm activities (%)	10	10	7

Source: Brochures of the ADPs

The study ADPs passed through different phases [13] in line with the evolution of the strategies of WVE as described elsewhere in this study. Antsokia has passed through three phases. The first was the relief phase (1984/85), during which 68,000 people got relief aid including wet feeding, medical assistance, grain, supplementary food and clothing. The most important lesson learnt during this phase was the creation of dependency syndrome among the beneficiaries. The second was the rehabilitation phase

[13] For details see the brochures of the ADPs.

I wonder how one can say that dependency Sy. was created in this particular period (1984/85). Was that not a year of drought disaster? Life was totally dependent on Aid. Dependency, one can talk, in the later years.

CORDA

(1986-89), which focused on the objective of facilitation the recovery of victims of the famine 1984/85 and bringing attitudinal change among the target population. It was during this time that a 78-meter-long baily bridge and 12 kms motorable road were constructed and farm inputs (draft oxen, fertilizer, farm tools) were distributed among 10,350 households. The third was the Area Development Program phase (1990-99), during which, among other things, food security issues received utmost attention. Of the various problems encountered during the last two phases, WVE documents have singled out "low awareness and participation of stakeholders in development programs" and "sustainability concern" as major constraints.

Kemissie ADP has passed through two phases. The first phase (1990-95), which focused on relief and rehabilitation, contributed to the efforts of saving the lives of victims of famine and to rehabilitating people affected by famine. During this period, 52,078 people were assisted with 2566.1 MT of grains. In addition, households were provided with farm inputs and 164.2 kms of feeder roads were constructed. A major lesson learnt during this period was that "free handouts created dependency syndrome". This prompted WVE to support efforts in building the asset base of households and improving preparedness capacity of the people through sustainable development. During the second phase (1995-99) the ADP attempted to insure household food security in a sustainable manner. But this effort was hampered, mainly, by recurrent drought as will be seen below.

Mehal-Meda ADP has passed through similar phases as the other ADPs, starting with the relief phase (1988). During the relief phase, as many as 100,000 people benefited from the ADP's support schemes. The rehabilitation phase of 1989/90 was followed by a development phase like the other ADPs.

The ADP do face a lot of problems that need intervention from government and NGOs. For example, in Antsokia the top five problems included, in order of importance, (1) lack/shortage of drinking water; (2) lack or inadequacy of health services; (3) inadequate supply of improved farming inputs and irrigation facilities; (4) problems of loading and soil erosion; and (5) problems of food shortages /lack (WVE 1998:22).

After or before the ADPs ?
put it clearly.

7. ACTIVITIES OF THE ADPs [14]

Better if activities are reported by sector. e.g – irrigation
– Soil conservation
– Agriculture
– Livestock, etc.
– School ?

It is beyond the scope of this study to present detailed discussion of the various activities undertaken by WVE in the study ADPs. The following table 12 summarizes only those major activities directly contributing to capacity building through improved social infrastructure and environmental rehabilitation efforts. Improvement in health and education facilities (such as clinics and schools) can directly contribute to improved livelihoods security of households. Similarly, the development of physical infrastructure (such as roads, bridges, irrigation, etc) contributes to improved livelihoods security of households. Also, it can be argued that environmental rehabilitation and the expansion of garden crops will have long-term positive effects on livelihoods security of households. In all these areas, WVE has made significant progress as presented in the following Table 12.

The degree of intensity of WVE's activities in the ADPs is very likely more pronounced in Antsokia (where WVE has been operation for the last 15 years) than the other two ADPs. For example, in the area of environmental rehabilitation alone, Antsokia ADP has to its credit 593 kms of soil conservation structures and over 20 million seedlings (of which 2/3 survived). Also, at the same time, 34,010 people received training in Antsokia as compared to 8,904 and 6,722 persons, respectively, in Kemissie and Mehal-Meda.

In addition, Antsokia has received higher proportion of interventions, which have relatively short-time effects on household food security. Thus, during the period 1984-1999, households in Antsokia received 25,180 quintals of grain seeds, 24,464 pieces of farm tools and 10,119 head of livestock.

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14 This section focuses only activities meant to have long-term effects. Other equally important intervention are not included. For example, credit (e.g Birr 2,315,698 disbursed in Antsokia), flour mills (8 in Antsokia), VET services, behaves, medical assistance to children immunization programmes, etc.

→ Included or not included?
If not included, Why not have long-term effects?

On the other hand, the other ADPs (which are of relatively recent origin) received lesser amounts of the support listed above. For example, Kemissie (during the period 1990-99) received 5,663 quintals of grain seeds, 4,251 pieces of farm tools and 5,729 head of livestock. From the above, we derive one research hypothesis: Antsokia has attained a higher degree of livelihoods security than the other two ADPs because of a higher degree of capacity building, crop diversification, and environmental rehabilitation achieved during the long period of operation of WVE in the area.

Here it is interesting to note that the ADP do give support to extension and demonstration efforts of Agricultural Bureaus, although they don't directly participate in extension activities, which fall within the exclusive domain of the government. For example, in 1999 the 13 ADPs of WVE provided 2988 kgs of vegetable seeds, 116, 300 kgs of cereal seeds, 3988 enset seedlings, 2,689,834 potato cuttings, 99,561 fruit tree seedlings, 20,850 coffee seedlings 3,183 litters and 4,289 kgs of chemicals etc. (Annual Program Performance Report 1999, p. 8).

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Table 12: **Intervention in Capacity Building, Infrastructure Development and Environmental Rehabilitation**

Sectors	Antsokia (1984-99)	Kemissie (1990-99)	Mehal-Meda (1988-99
Soil conservation & afforestation & garden crops	• 593 kms of soil conservation structures constructed. • Over 20 million seedlings planted & 2/3 survived. • 2,730 farmers adopted agroforestry and garden crops	• 5.32 kms of flood protection dykes constructed & 1800 ha. of fertile land reclaimed. • Over 3.8 million seedlings planted • 2760.5km of horticultural seeds were supported. • 2 main nurseries established & 39 community & individual nurseries assisted. • 520 kg of tree seeds supported • 148,251 fruit seedlings were provided	• 10 nurseries established • 9,580,195 seedlings produced; 6,762,761 seedlings planted; 81% survived. • 2,754,540 micro basins constructed. • 954 kms of hillside terraces; 47 kms of check dams; 51 kms of cut off drains; 14 kms of farmland bund: & 129 stone bund constructed.
Physical infrastructure	• 8.5 k ms of irrigation canals constructed • 12 kms of all weather roads & 15 km of feeder roads constructed • 78 meters long iron bridge constructed • 56 springs capped; 4 shallow wells drilled: 147 distribution points 5 & 26 collection chambers constructed; & over 55 kms long pine line laid.	• 8 irrigation pumps were installed & 20 ha. of land developed. • 77.6 ha. of land developed with irrigation. • 200 hand-dug wells developed. • 300 ha. developed by spring & reservoir irrigation. • 7.6 km of all weather & 1642 kms of feeder roads constructed. • 5 bridges (crossing structures) built.	• One diversion weir constructed (along with canal); ram pumps installed • 227 kms of feeder roads constructed • 68 springs developed maintained, or rehabilitated. • Water reseviours constructed • 12 bore holes drilled.
Health infrastructure	• 2 health centers, 6 health posts & 2 clinics constructed • 5 public showers, 2847 pit latrines constructed • 75% of children immunized • Family planning adopters reached 30%	• 1 health center, 7 health posts and 2 clinic constructed • Kemissie health center was upgraded with 5 additional blocks • One ambulance donated to Kemissie health center • Family planning adopters increased • More than 1710 people trained	• 1 health center upgraded to rural hospital (11 blocks constructed) • Health posts constructed • 23 latrines constructed.

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• More than 14,000 people trained	• 24 springs 57 ponds developed, 18 shallow & 14 deep wells drilled, 20 pump installed. • 1 water reservoir constructed and about 2077 mts pipe laid • Medical assistance provided for 17514 children • 8750 mothers and 11267 children immunized	
• 8 primary schools built • 1 high school constructed • 1 Adult skill training center opened • Educational materials & clothing distributed for over 21,000 needy children • Financial support made for 1109 high school students	• 8 primary schools built, and 6 reconstructed • 1 day care center built at Kemissie town • 1 junior school constructed • 1 school upgraded to high school level • 1 Adult training center constructed • Education materials supported for literacy campaign • Education materials and clothing distributed for over 19,340, and 52,477 CIPs (children in program) respectively. • Financial support made for over 20 CIP college students • Educational materials, sport wears worth 470,000 birr have been distributed to 39 schools	• Additional blocks constructed at 7 schools. • Schools maintained.

Source: Brochures of the ADPs

A more detailed picture of the major activities of the ADPs can be gauged from the following summary of the activities and impact of Antsokia ADP during the fiscal year 1999 (see annual Report of Antsokia –Gemza ADP, in WVE 1999).

With a view to reducing dependence on unreliable and often inadequate rainfall, the ADP has focused on irrigation development to increase food production in the area. Accordingly, during the fiscal year 1999, detailed irrigation feasibility study was

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undertaken and 4,230 meters of concrete canal and 410 meters of water pipe were laid in six different villages for the purpose of diverting irrigation water from perennial rivers and springs. It was reported that this effort helped more than 1040 households to upgrade their traditional irrigation practices covering about 257 hectares of land. Flood protection schemes (measuring 380 meters in length and 5 meters in width) were constructed at Majete town.

Gardening and poultry development activities were undertaken during the fiscal year 1999. Twenty – five kilograms of various vegetable seeds and 794 pieces of farm implements were distributed among primary schools and health institution engaged in improved gardening activities. During the fiscal year, 22 schools and 2 health institutions were engaged in gardening activities. Also, about 9,831 students were involved in gardening activities. In addition, 970 farm households were supplied with fruit and vegetable seedlings raised at different school nurseries and at the ADP's main nursery.

The food diversification efforts of the ADP also covered promotion of poultry farms. Accordingly, 60 pullets and cockerels were provided to three primary schools. In addition, intensive training programs were extended to 454 students, 45 teachers 821 farmers and 44 extension workers. The training focused on improved methods of poultry development and gardening. Moreover, in collaboration with the woreda Agricultural Office, a total of 5,069 community members received training on different fields of agriculture including general agriculture, afforestation, soil and water conservation, agro-forestry, animal husbandry, improved irrigation practices and horticulture.

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Agricultural activities also covered related interventions. At the main nursery of the ADP, one million seedlings were raised for the purpose of promoting natural resource conservation. Also, the ADP has attempted to control plant pests and animal diseases in collaboration with the woreda agricultural office. It provided the office with 563 kgs of pesticides and 30 knapsack sprayers to control the outbreak of army warms. In addition, the ADP supplied the office with veterinary drugs worth USD 1,365. This effort helped to treat 677 cattle and 2700 goats.

It is better if these achievements (e.g. figures) are summarized in a table form so that one can easily or clearly appreciate.

Through its extension-demonstration support program, the ADP has attempted to promote the production of onion, an important cash crop in the area. During the fiscal year 1999, it provided the woreda Agricultural Office with 2000 kgs of onion bulbs, which were planted at the demonstration site of Agla-Majete village with a view to ensuring a stable supply of fresh onion seeds.

Through its relief seed distribution scheme the ADP has attempt to support vulnerable farm households during times of distress. When belg harvest of 1999 failed, it provided 305 quintals of teff seeds, on loan basis, to farmers screened by the woreda Agricultural office.

Using different survey instruments, the ADP collect useful information and undertakes various studies. Every year, it undertakes nutrition surveys, alike other ADPs. In 1999, it conducted 52 weekly crop and livestock market surveys in local towns.

The ADP has also programs for an off-farm income generation and asset building. It has established and strengthened solidarity groups (SGs)and interest groups (IGs), mostly, among farmers predominantly engaged in irrigated agriculture. The purpose of the groups is to facilitate the flows of credit from WISDOM (a micro finance institution operating in the area) and mobilize savings and ensure timely repayment through group responsibility system. The ultimate goal of these groups is to establish village banks.

The Antsokia ADP also gives training on various income generating activities. For example, in 1999, it gave training on modern beehive management to 80 farmers. At the same time, it issued to farmers, on loan basis, 152 modern beehives through the woreda Agricultural Office.

Through its health service program, it constructed 15 spring capping (benefiting 8,490 households), 7.43 kms of water supply lines (benefiting 1,109 households), 19 distribution points (benefiting 4,993 households, 1491 spring rehabilitation schemes benefiting 976 households), 166 household pit latrines (benefiting 1,036, households) and one ventilated pit latrine.

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Maternal and child care services of the ADP included promotion of contraceptive methods, children growth monitoring programs, supplementary flood treatment of vitamin deficiency cases, etc.

The education service program of the ADP included school construction, basic literacy support, training of schoolmasters, and student support schemes.

Environmental rehabilitation (through institutional innovation) is an exemplary effort undertaken by the Atnsokia ADP and the zonal administration. The establishment of individual wood lots is a case in point. According to this scheme, households are granted usufruct right to previously degraded plots of land. Plots are given to farmers for the sole purpose of planting and growing trees to which they are granted the right to cut and use or sell when the need arises. In 1999, the local government distributed 140 hecares of denuded wasteland to individual farmers for the purpose of planting trees. The farmers lost no time to plant these plots with seedlings.

The annual Report of Atnsokia ADP (1999) reports that significant impact has been registered resulting from the ADPs intervention (see Annex 7).

CCRDA

Relief Food In Mehal Meda

WVE has made vigorous attempt to make a successful transition from the distribution of relief food to long-term development. However, its attempt has been frustrated, mainly, by recurrent drought and consequence crop failure in the ADPs. This point can be demonstrated by evidence from Mehal Meda (Table 13 & figure 3 & 4).

Following full implementation of area development program in Mehal Meda in mid 1990s both the number of beneficiaries and the quantity of relief food exhibited declining tendencies. The quantity of relief food dropped sharply from a peak of 2,320.21 metric ons in 1995 to 235.9 metric tons in 1996. During the following two years the ADP stopped distributing relief food. However, because of the recent drought and consequent crop failure in the ADP, distribution was resumed in 1999 and peaked up in 2000. A similar pattern was observed regarding the yearly size of beneficiaries.

→ on page 45 As shown by the evolution of the WVE's activities from a relief phase to ADPs is discussed. But Mehal Meda continued to receive Relief assistance during 1992 - 2000, how then, this target is classified as ADP?

The importance of food-for- work programs in the ADP has declined overtime, although no interruptions were observed throughout the 1990s. The quantity of food – for work declined from an all time high of 1,4662.25 MT in 1993 to a mere 25.76 MT in 2000. Similarly, the number of beneficiaries (which may suffer from possible double counting) dropped from a peak of 52,990 in 1994 to a mere 406 persons in 2000.

Drought is a national problem that has affected many parts of the country. Currently, more than 6 million people are in need of relief assistance. At the national level Ethiopia undertook 327 million Birr worth of development work through food-for-work and benefited 2 to 8 million people (The Ethiopian Herald, 1992 E.C. Vol. LVT, No. 306)

7.2 Relief Food and Food-for-work

Table 13: Mehal-Meda = Relief food and Food-for-work, 1992-2000 (Wheat only) (Quantity in MT)

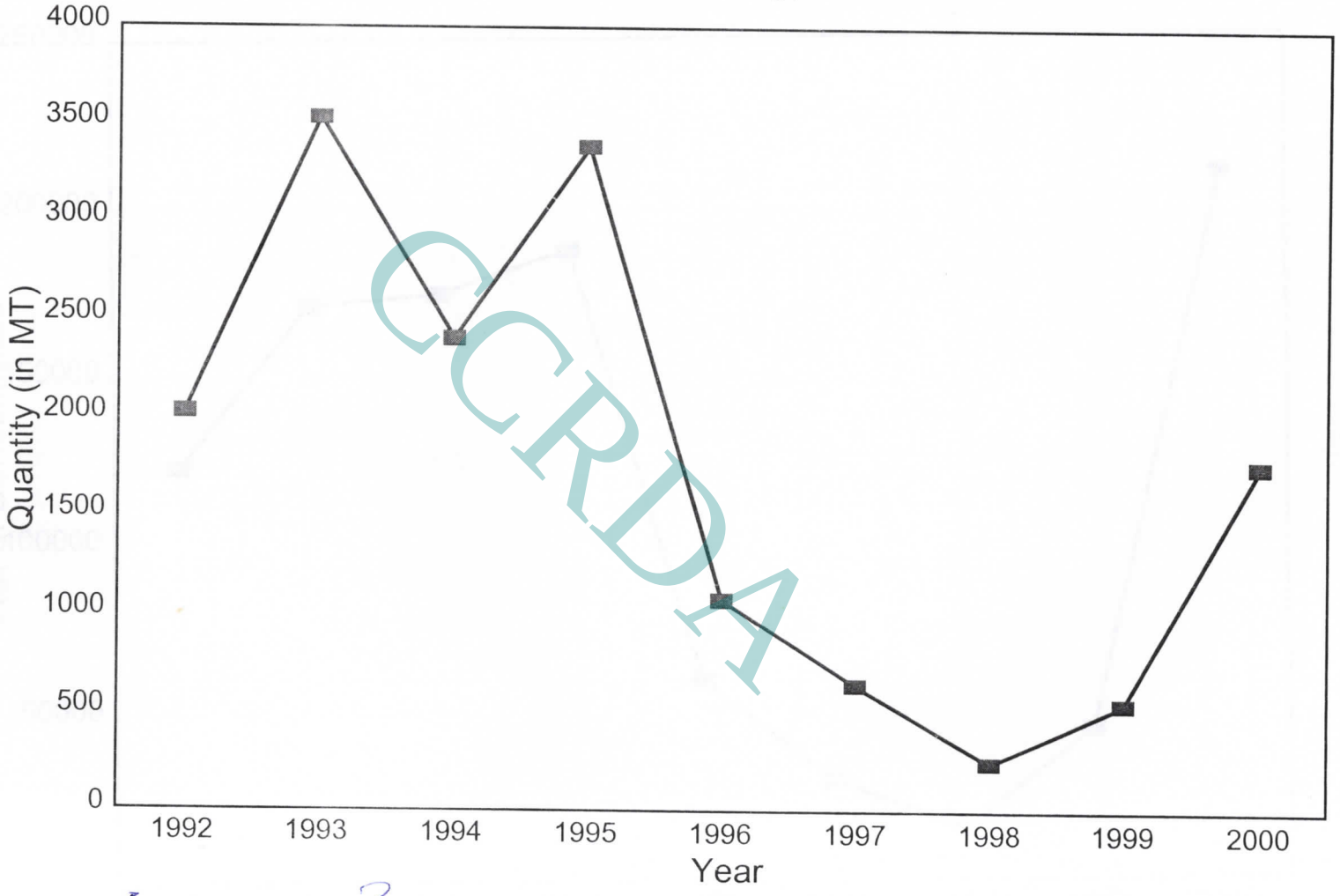
Year	Month	Relief Quantity	Relief beneficiary (Total)	Food for work Quantity	FFW Total beneficiary	Total Quantity	Total beneficiary
1992	Sept. 91-Sep 92	1,806.9	120,636	223.8	2,214	2030.7	122,850
1993	October 92-Sept 93	2,069.85	133,557	1,462.25	37,322	3532.1	170,879
1994	Oct.93-Sept.94	1,693.39	121,080	716.18	52,990	2409.58	174,070
1995	Oct.94-Sept.95	2,320.21	171,192	1,067.31	15,962	3387.53	187,154
1996	Oct.95-Sept.96	235.90	23,102	843.93	36,206	1079.84	59,308
1997	Dec. 96-Sept. 97	—	—	642.79	29,456	642.79	29,456
1998	Dec. 97-Sept. 98	—	—	249.57	15,215	249.57	15,215
1999	Oct. 98-Sept. 99	497.115	39,769	51.85	4630	548.97	44,399
2000	Oct. 99-May. 2000	1,740.55	208,610	25.76	406	1,766.31	209,016
TOTAL		10,363.91	817,946	5,283.46	194,401	15,665.0	1,012,347

Households or persons ?

Source: ?

CCRDA

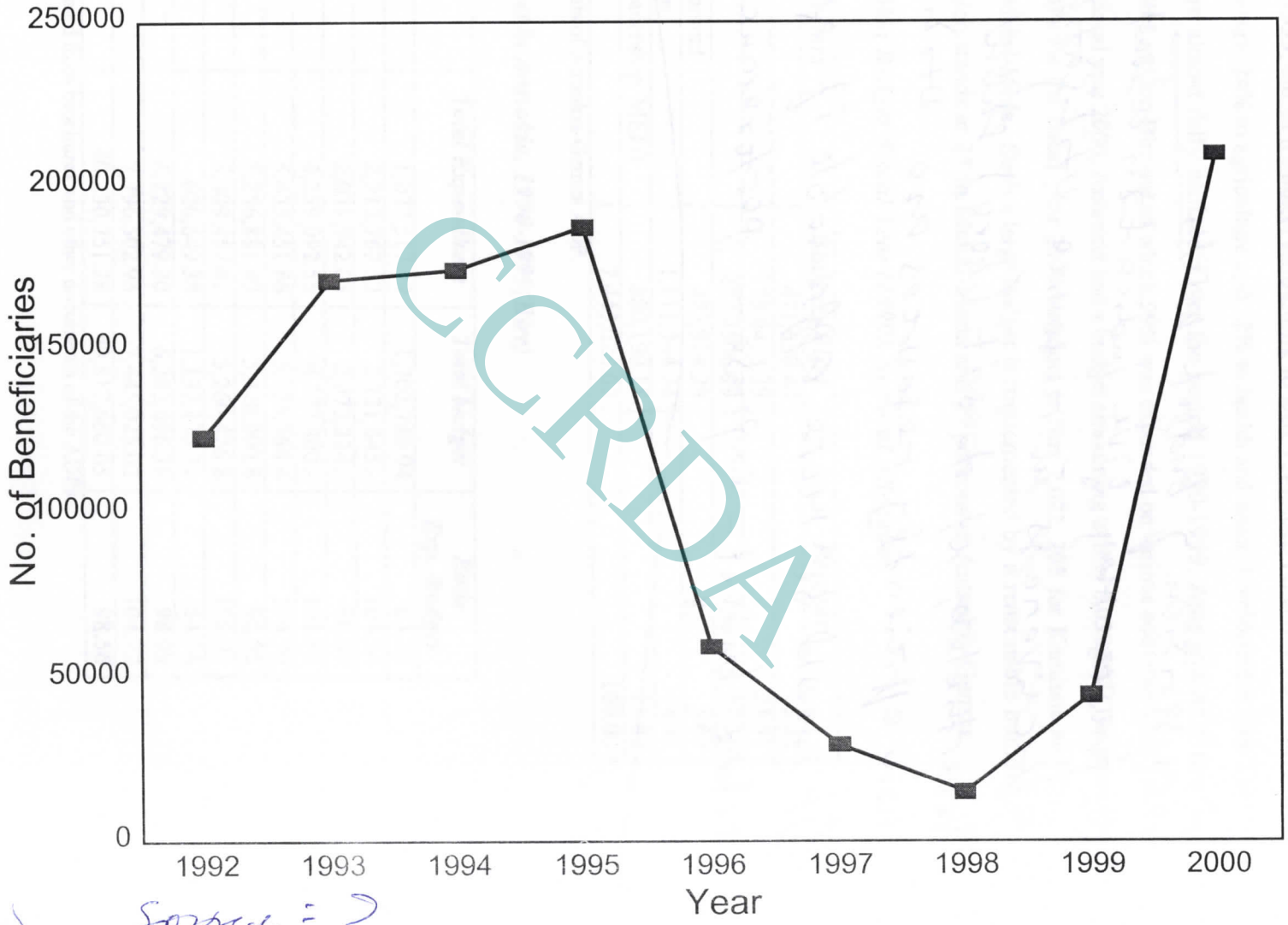
Figure 3 Total Quantity (in MT) of Relief Food and Food-For-Work, 1992-2000 (Wheat Only) of Mehal-Meda ADP



CCRDA

Source: ?

Figure 4 . Total Number of Beneficiaries of Relief Food and Food-For-Work, 1992-2000 of Mehal-Meda ADP



Source :>

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8. BUDGET OF THE ADPs AND UTILIZATION

Available information suggests that most of the budget of the ADPs focus on sectors that contribute to the alleviation of household food security problems. For example, during the fiscal year 1999, out of a budget amounting to Birr 7,445,025 Antsokia ADP allocated 37% to infrastructure, 24% to agriculture and 12% to health and water development (see Table 14). Budgets are almost fully utilized. Over the period 1990-1999, Antsokia ADP used a total budget of 40.8 million Birr out of which 99% was expended on various activities (see Table 15). During the fiscal year 2000, Antsokia had a budget amounting to Birr 8,038,592. The budget of the other ADPs for the fiscal year 2000 amounts to Birr 7,022, 208 for Kemissie and Birr, 5,3000,112 for Mehal-Meda.. Such a large budget is implemented by a reasonable number of employees, which stands at 25 in Mehal-Meda and 29 persons in Antsokia-Gemza.

Table 14: *Ansokia Budget Fiscal Year (1999), Sectoral Allocation*

Sectors	*Budget (Birr)*	*Percent*
Health	471,630.46	6.33
Agriculture	178,0438.39	23.91
Infrastructure	277,7506.99	37.31
Water development	423,914.29	5.69
Administration	1,111,344.74	14.93
Others (srs, leadership, MED)	880,190.15	11.82
TOTAL	7,445,025.02	100.00

Source: Documents of Antsokia-Gemza ADP.

Table15: ***Budget in Antsokia, 1990-1999(Birr)***

Year	*Total Expenditure*	*Total budget*	*Ratio Exp. /budget*
1990	1,077,517.19	1,702,749.94	63.28
1991	2,213,767.52	2,121,645.-	104.34
1992	2,031,942.05	2,073,324.-	98.00
1993	4,259,092.55	4,177,800.-	101.95
1994	5,435,451.86	5,178,766.4	104.96
1995	5,256,891.49	5,428,000.8	96.85
1996	5,309,457.01	5,260,476.8	100.93
1997	620,649.38	1,137,175.71	54.58
1998	6,229,479.30	6,292,696.38	98.99
1999	7,796,502.93	7,445,025.02	104.72
Total	40,230,751.28	40,817,660.05	98.56

Sources: Computed from brochures and other documents of the ADPs

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Capacity and Coverage of the ADPs

Resources give maximum benefits when they are concentrated in economically viable and defined geographical areas. On the other hand programs could be in effected when scarce resources are timely spread over wide geographical areas. It is difficult to achieve too many things with too limited resources.

WVE has been overarched to the extent that Mehal meda is concerned. As indicated in the ~~following~~ table 16, Mehal Meda ADP has allocated Birr 34 to every person in the woreda (as against Birr 80 in Antsokia). Similarly budget per hectare of the land area in Mehal-Meda has amounted to Birr 32 as against Birr 125 in Antsokia. A staff member in Mehal-Meda has attend to 6,237 persons as against 3,204 persons in Antsokia. Also, a staff member in Mehal-Meda has on average, to cover 6,627 hectors of land area as against 2,052 in Antsokia.

Kemissie ADP is better than Mehal-meda in terms in some respects but is the same or worse off in other respects as indicated in the table. Thus, this study expects relatively impressive results from Antsokia and unsatisfactory performance in Meha-Meda.

Table 16 Capacity and coverage of the ADPs

Resources and Coverage	Antsokia	Kemissie	Mehal Meda
Budget (Birr)	7,445,025	7,022,208	5,300,112
Permanent staff (number)	29	27	25
Population	92,920	203,861	155,922
Land area (ha.)	59,501	85,695	165,671
Budget per person (Birr)	80.12	34.45	34.00
Budget per ha. (birr)	125.12	81.94	32.00
Population per staff (persons)	3,204.0	7,550	6,237.0
Land area per staff (ha)	2,051.7	3,173.9	6,626.8

Sources. Computed from brochures and other documents of the ADPs

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This way of input allocation analysis seem to be misleading. Because:
1) We can not attribute budget allocated to the total physical area. It doesn't give sense,
2) Similarly, if the WVE's focus is 'the poorest of poor' you can not relate budget to the total population of an area.
3) Unless the 3 ADPs have uniform situation, such comparison

Please see in USA

PART IV: RESULTS OF THE HOUSEHOLD SURVEY

9. ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS OF SAMPLED HOUSEHOLDS

The economic and demographic characteristics of sampled households are summarized in Table 17 below. The household level dependency ratio is quite high as per expectation. Forty-seven percent of household members falls below the age of 15. Parents accounted for about one third of the total members of the household. The rest about 7% of the household consists of the extended family (relatives). The nature of household composition suggested in this study is more or less in harmony with the national average.

The mean household size stands at 5.58 persons per household. The lowest household size is recorded in Kemissie (5.2) and the highest in Antsokia (5.95). These figures compare favorably with the national (which is about 5.5 average. Temporary dependents (with 6 months stay) not constitute an important component of the household. Only 10% of sampled households reported entertaining temporary residents.

The age composition of household heads has certain interesting characteristics (see Table 18). For the study ADPs as a whole, the majority of the household heads (28.5%) are found within the age bracket, 40-49 years. Female households heads are found to be younger than male households in Mehal Meda and Antsokia (30-39 years). However, in Kemissie, the majority of the women heading houses (28.9%) are found within a quite old age bracket, 50-59 years.

The average age of households in the three ADPs stands at 46 years. Household heads are younger in Kemissie. (where the average age is 44.4 years) and older in Antoskia (where the average age is 48.6 years).

Female-headed households have accounted for 16% of the total sampled households in the study ADPs. These ratios have varied from 10% in Mehal-Meda to 21% in Kemissie. The proportion of female-headed households in the study ADP is quite lower than the national average, which is about 25%.

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A large proportion of the household heads (83%) is married. In Kemissie (where 79% of the households is married) a quite high proportion of the households (4% against 1% in Mehal Meda and 3% in Antsokia) is reported as single.

The level of education of the household heads has varied among study ADPs. For the study ADPs, 64% is illiterate, while 25% can only read and write. The rest 11% attended elementary and secondary schools. The highest level of illiteracy has been reported in Kemissie (79%) and the lowest in Mehal-Meda 40%). In the latter case, 13% of the sampled households has attended junior and senior secondary schools or completed 12th grade as against a mere 4% for the former. In Antsokia, quite a large proportion of the household (29%) can read and write. But this ratio is higher for Mehal-Meda (32%)
At the national level, 26.6% of the rural population (age 10 years and above) is literate. The literacy rates for North Shewa and Oromiya Zone stand at 18.8% and [illegible] respectively (CSA's Welfare Monitoring Survey of 1998). For the three ADPs together, a larger proportion (36.3% is literate).

Female-headed households are less educated than male-headed households. For the study ADPs, 86% of female-headed households are reported to be illiterate as against 59% for male-headed households. Only 6% of the former can read and write compared to 28% for the later. Women's illiteracy rate is the highest in Kemissie, where as much as 97% is illiterate as against 74% for male headed households in the same ADP.

Regarding the main occupation of the household head, farming has been reported as the main occupation for 86% of the sampled households. Handicraft is the main occupation for only 2% of the sampled households. Similarly, trade has been reported as the main occupation for less than 2% of the sampled households. Other activities (not defined by the interviewees) were reported by 4% of the households. About 3% of the households are not engaged in productive activities because of schooling, disability, old age, or unemployment.

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The type of main occupation has varied widely between male-headed and female-headed households. Of total female headed farm households, only 43% reported farming as a main occupation as against 92% for male-headed households. A considerable proportion of female-headed (28%) reported household chores as a main occupation. It can be argued that in Mehal-Meda, a high proportion of female-head households (73%) is engaged in household chores as a main occupation as compared to Kemissie (11%) and Antsokia (29%), where farming is an important occupation for female-headed households. In particular, in Mehal-Meda as much as 73% of female-headed households reported household chores as the main occupation. In Addition, 11% of the total female-headed households reported miscellaneous activities as a main occupation as against 3% for male headed households. Perhaps, it can be argued that existing gender division of labour (e.g. women, in general, do not use the plow) circumscribe the extent to which women are engaged in the cultivation of crops. This implies that access to land alone does not necessarily guarantee women's participation in the agricultural labour force.

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Table 17: **Economic and Demographic Characteristics of Households**

	Variables	Mehal Meda	Kemissie	Antsokia	Total
1	Household size	5.60	5.20	5.95	5.58
2	Percent of children (bellow15)	47.2	47.6	47.3	47.2
3	Average age of household heads	45.76	44.41	48.64	46.32
4	Female-headed hhs as proportion of all hhs (%)	10.3	20.76	16.3	16.13
5	Proportion of hh head married (%)	88.2	79.2	83.6	83.3
6	Percent of hhs illiterate	40.4	78.7	66.1	63.7
7	Percent of hh attended secondary schools or 12 complete	13.3	3.8	3.2	6.2
8	Percent of hh read and write only	31.6	15.3	29.0	24.7
9	Percent of female-headed hhs, illiterate	66.7	97.4	82.1	86.4
10	Percent of male headed hhs, read & write	37.2	73.8	63.2	59.4
11	Percent of female-headed hhs, read & write	13.3	0.0	10.7	6.2
12	Percent of male-headed hhs, read & write	33.9	19.3	32.3	28.3
13	Farming as a main occupation (%)	88.2	77.6	88.5	84.5
14	Household chores as main occupation for fhh(%)	73.3	10.5	28.6	28.4
15	Farming as main occupation for fhh(%)	26.7	44.7	50.0	43.2

fhh - female headed households
mhh- male-headed households

Source: Household Survey

Table 18: **Age of Household Heads by Sex: Dominant Age Groups**

Sex	Mehal-Meda		Kemissie		Antsokia		Total	
	Dominate age group	%	Dominate age group	%	Dominate age group	%	Dominate age group	%
Male	50 – 59	26.4	40 – 49	32.4	40 – 49	34.2	40 – 49	29.9
Female	30 – 39	46.7	50 – 59	28.9	30 – 39 40 – 49	25% 25%	30 – 39	28.4
Total	50 – 59	25%	40 – 49	30.1	40 – 49	32.8	40 – 49	28.5

Source: Household Survey.

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Health Situations

The majority of the households (65%) (almost equal to zonal averages and exactly equal to national average) were of the opinion that they faced no major human health problems during the two months preceding the survey. However there have been strong variations between the ADPs. In Kemissie, as much as 64% health problems reported compared to only 9% in Antsokia. These differences can be partly explained in terms of availability of medical facilities in an ADP, climatic differences between ADPs, household nutritional status, reduced prevalence of malaria during the study period, etc. In Antsokia and Kemissie, malaria has been identified as number one disease among the top ten serious diseases in the area (WVE 1998: 16)

When the reference period is extended form two months to ten years, more or less similarly results are obtained. In Antsokia, the majority of sampled households (60%) reported a decrease in health problem during the period 1990-2000, while in Kemissie as much as 76% of reported increases in health problems over the same period. For the three ADPs together, about 50% reported increases in health problems during the 1990s, while 36% reported decreases in health problems (see Table 19 & figure 5).

The major diseases causing health problems are identified by sampled households (76%) as cough and other diseases, followed by malaria. Malaria has been identified as the single major health problem in Kemissie, in particular.

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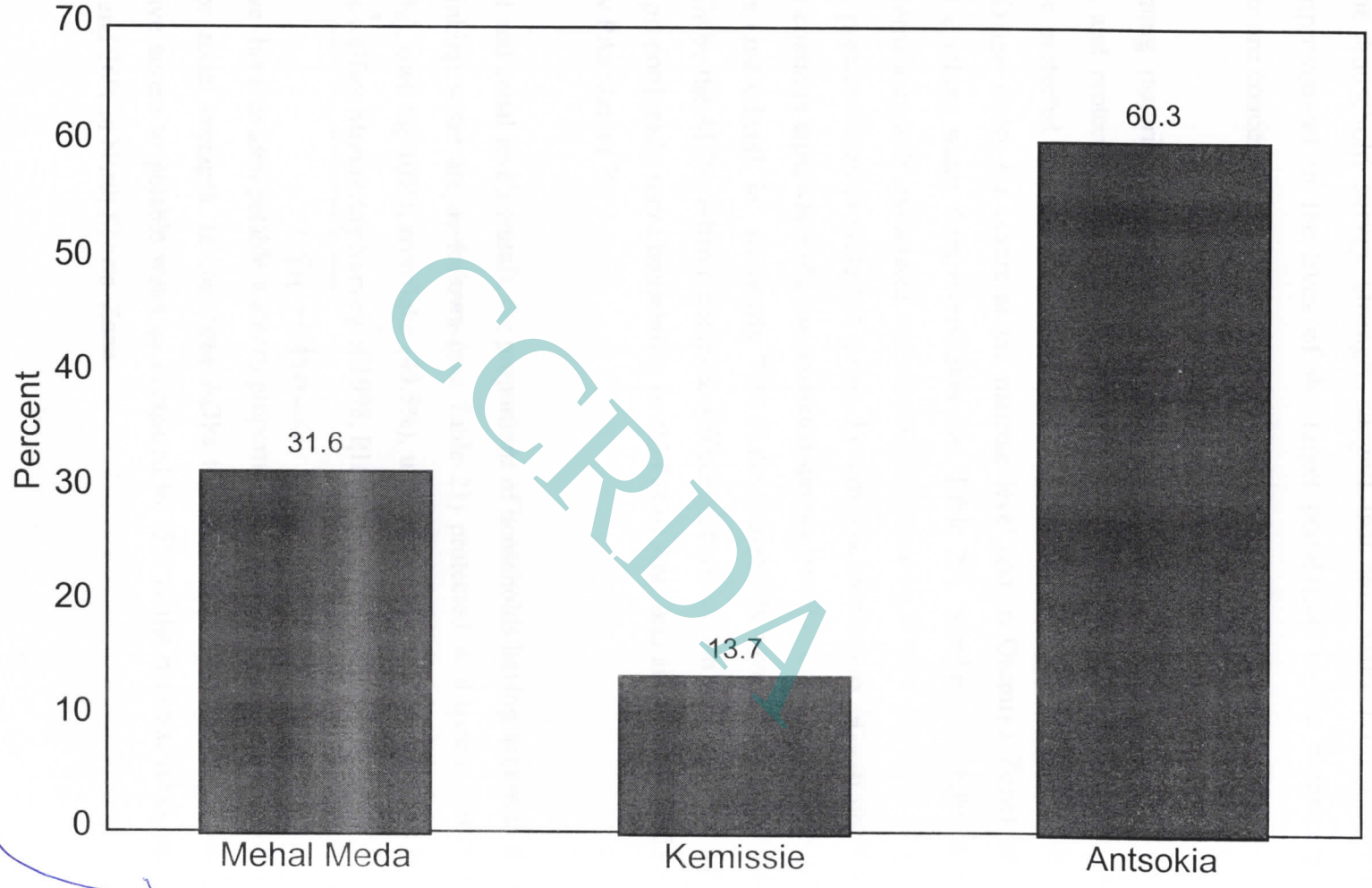
Table 19. **Human health Problems**

Variables	*Mehal-meda*	*Kemissie*	*Antsokia*	*Total*
Percent of hhs facing health problems during the last 2 months	31.6	63.9	8.7	35.1
Percent of hhs reporting increases in the incidence of human diseases	55.1	75.8	18.5	49.2
Percent of hhs reporting decreases in the incidence of human diseases	31.6	13.7	60.3	35.7
Major human diseases	Cough & other diseases (75.7%)	Malaria followed by cough & other diseases (97.8%)	Various diseases & malaria (65.1%)	Cough & other diseases follow by malaria (76.3%)

Source:

CCRDA

Figure 5 Percent of Households Reporting Decreases in the Incidence of Human Diseases



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10. HOUSING AMENITIES AND ACCESS TO FACILITIES

10.1 Housing Amenities

Results of the household survey strongly suggest that the ADPs have contributed to significant improvement in the lives of the target population to the extent sources of drinking water are concerned (see Table 20 & figure 6)

An overwhelming majority of sampled households get potable water from protected wells, common taps, and protected springs (see Table 19). In Mehal-Meda, as much as 46% of the households use protected springs, 21% use protected well and 10% use common taps. Only a minority (22%) use rivers (or others at the national level and in Oromiya Zone) half of the population get drinking water from rivers/lakes (see Table 20). Similarly, in Kemissie (where settlement patterns are partly associated with the Addis-Dessie highway), 24% use common tap, while 30% use protected well or protected spring. In Antsokia, as much as 74% of the households get water from common taps, while 6% use protected springs, own taps, and protected wells. Only 20% use rivers (and others). In all, nearly 77% of the households have access to potable water provided mainly by the ADPs. When it comes to differences between old and new PAs, it has been observed that proportionally more households in old Pas of Antsokia and Mehal Meda use river water than new PAs (Annex 7).

At the national and zonal levels (rural), the proportions of households having access to the various sources of drinking water are as follows (see Table 21) protected well/spring (10.1%), public tap/bono (3.6%), own tap (0%), river/lake (49.5%), unprotected well/spring (32.2%), and others (4.6%) (CSA's "welfare Monitoring Survey" of 1998, P.158).

↳ In reference

The ADPs have this provided potable water to proportionately a large numbers of households than the national or zonal averages. In the three ADPs together, as much as 77% of the sampled households have access to potable water as compared to 15% at the national level, and 14% in Ormiya zone, and 26% in North Shewa Zone.

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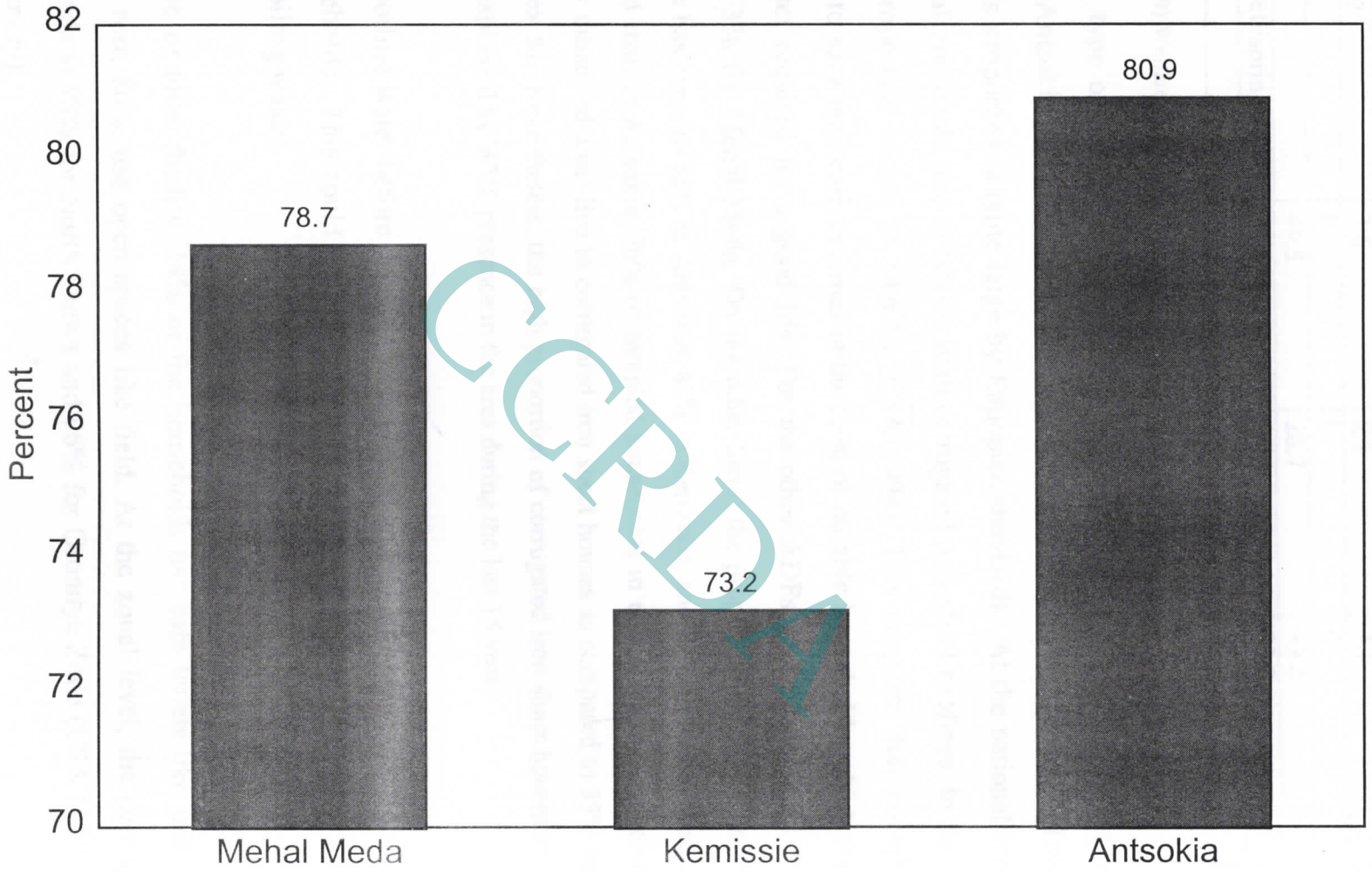
Table 20: **Main Sources of Drinking Water (%)**

Sources	Mehal-Meda	Kemissie	Antsokia	Total
River	21.3	26.8	19.1	22.5
Protected well	20.6	14.2	1.1	11.2
Common tap	10.3	41.5	73.8	44.8
Own tap	0.7	1.1	2.7	1.6
Protected spring	46.3	15.3	2.2	18.9
Others	0.7	1.1	1.1	1.0
Total	100	100	100	1000

Source:

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Figure 6. Percent of Households Drinking Potable Water



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Table 21: **Source of Drinking Water, Nation and Zonal Levels (/% of rural hhs)**

Sources	National	North Shewa	Oromiya Zone
Protected Well/spring	10.1	24.2	10.2
Public tap/bono	3.6	2.1	4.1
Own tap	0	0	0
River/lake	49.5	28.7	49.2
Unprotected well/spring	32.2	36.4	30.8
Others	4.6	8.6	5.8

Source: CSA (1999) Welfare Monitoring Survey of 1998, Statistical Bulletin 224

Regarding the type of houses, the survey has suggested that a considerable proportion of households in Antsokia (42%) live in houses with corrugated iron sheet roofings (Table 22 & figure 7). This proportion is quite large by Ethiopian standards. At the national level, only 0.85% of rural household live in houses with corrugated iron sheet roofines. In the Amhara region, this proportion comes to 14.67% (CSA 1994). This suggests that households in Antsokia tend to save their cash incomes in the form of durable households, which constitutes a valuable asset required for a good life. For the other ADPs, this proportion is 13% for Kemissie and 3% for Mehal-Meda. On the other hand, the proportion of households living in thatched houses has come to 58% in Antsokia, 87% in Kemissie, and 97% in Mehal-Meda. Here, it should be noted that, in Antsokia, 70% of sampled households in new P.A.s(which includes Agla Wujete, a partly urbanized area) live in corrugated iron sheet houses as compared to 35% for the old P.A.s (see Annex 8). Nevertheless, the high proportion of corrugated iron sheet houses in Antoskia can be largely explained by WVE presence in the area during the last 15 year.

The habit of boiling water before drinking is limited to an insignificant proportion (1.4%) of sampled households. This could be due to lack of awareness and/or limited capacity (time and fuel for boiling water).

Regarding type of toilet facility, 14% of the households use safe toilets like pits and VIP latrines. The rest, 86%, use open spaces like field. At the zonal level, the corresponding proportion stands at 98% for North Shewa and 96% for Oromiya Zone (CSA 1999, Welfare Monitoring Survey).

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Collected firewood is the main source of cooking fuel for 95% of the households in Antsokia and for 84% in Kemissie. In Mehal-Meda, on the other hand, a lesser proportion (41%) rely on collected fire wood as a main source of cooking fuel. There, cow dung is used by 57% of the households. Such differences between the ADPs can be partly explained by availability of forest wood and by livestock population. A related factor is the relative importance of time required to collect fuel.

Also, it is interesting to note that in Antsokia most households dwell in highlands away from where the animals graze on are kept.

This big difference b/n the three locations may not be ~~solely~~ due to years of projects in operation.

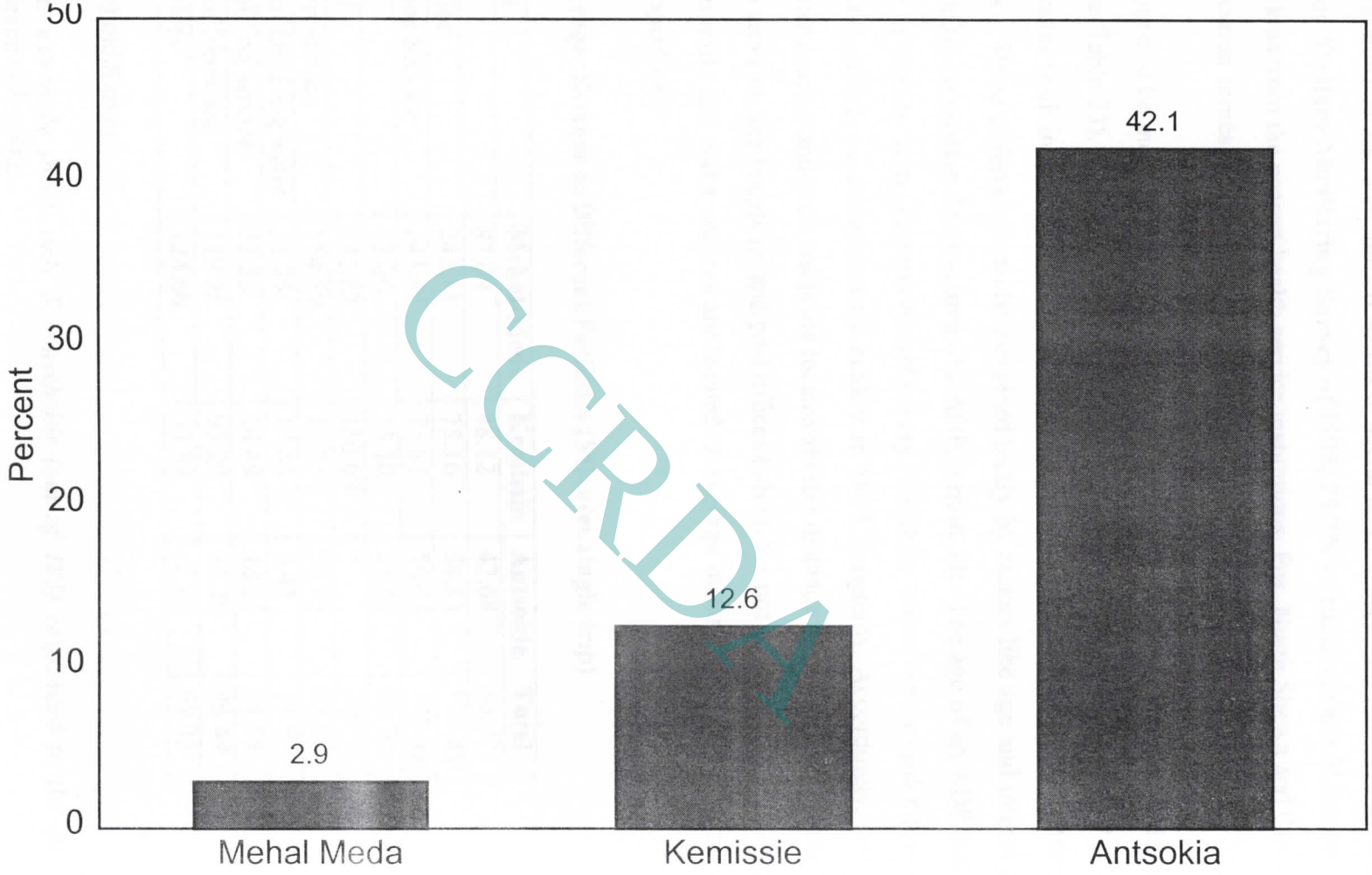
Table 22: Housing Amenities and Related Factors

No	Variables	Mehal- Meda	Kemissie	Antsokia	Total
	Percent of hhs living in houses with corrugated iron sheet	2.9	12.6	42.1	20.7
	Percent of hhs living in tatched houses	97.1	87.4	57.9	79.3
	Percent of hhs having a habit of boiling water before drinking	1.5	2.2	0.5	1.4
	Field/forest as the main type of toilet facility (%)	98.5	85.2	78.1	86.3
	Collected firewood as the main type of cooking fuel (%)	41.2	83.6	94.5	76.1

Source: ?

CCRDA

Figure 7 Percent of Households Living in Houses with Corrugated Iron Sheet



CCRDA

Source: ?

10.2 Access to Facilities

In Ethiopia, rural households have limited access to social and physical facilities. According to CSA's Report on **Welfare Monitoring Survey** of 1998, 25.7% of rural household, reside at a distance of 1-4 kms from the nearest health service institutions. For North Shewa and Oromiya Zone, this proportion comes to 8.8% and 24.5%, respectively.

Facilities are found to be more physically accessible to households in Antsokia than to those in other ADPs (see Table 23). The average distance between a homestead and all major facilities come to 43 minutes walk in Antsokia as compared to 54 minutes in Kemissie and 125 minutes in Mehal-Meda. These differences can be explained partly by factors like age and intensity of activities of a ADP, population density, area of a ADP, terrain, etc. The age of an ADP and the intensity of its activities seem important explanatory variables when we consider physical access to facilities which are conspicuously evident in WVE programs. Accordingly, services like clinics; water sources and grain mills are located shorter distance away from the homestead as compared to services like telephone and post offices (which are not covered by the ADPs). In Antsokia, grain mills and water sources are located at average distances of 18 and 6 minutes (single trip), respectively.

Table 23: **Average Distance to Different Facilities (Minutes single trip)**

No.	Services	Mehal-Meda	Kemissie	Antsokia	Total
1	Market	87.09	48.12	42.68	56.77
2	Post office	242.11	75.16	54.53	110.45
3	Telephone Service	243.46	75.87	56.05	108.99
4	Clinic	72.00	33.10	25.31	40.70
5	Hospital	232.62	150.68	*	209.93
6	Transport service	114.59	52.35	53.15	67.28
7	Source of Drinking water	21.55	17.45	6.41	14.57
8	Grain milling service	33.23	24.49	18.21	24.55
9	Source of Firewood	119.28	95.20	84.70	96.49
10	All services	124.66	53.82	42.48	69.33

Source: Household Survey

* *Valid N was extremely small; only 5 households (out of 183) responded to the question regarding distance to hospital*

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Availability of roads contributes to increased access to modern facilities. In the opinion of nearly 50% of sampled households in Mehal Meda, availability of all weather roads has improved over the period 1990-2000. A slightly lower proportion (46%) reported improved availability of dry weather roads (see Table). In Kemissie, still lower proportions, 42% and 40%, respectively reported increases in the availability of dry-weather roads and all weather roads over the reference period. In Antsokia (where the major roads were constructed in the 1980s?) quite low proportions of households (21% and 14%) reported increases in the availability of dry-weather roads and all-weather roads.

Old and new PAs have differential access to the various facilities. As indicated in Annex 9, the mean distance from all facilities has been shorter for old PAs of Mehal-Meda and Kemissie. But for PAs in Antsokia, the new PAs have shorter distance than the old ones. The average distance from all facilities (for new ones) is 25 minutes as against 47 minutes for old P.A.s of Antsokia. This could be due to inclusion of Agla Majete as a part of Antsokia-Gemza.

Table 24: **Changes in the Availability of Dry Weather Roads and All Weather Roads Between 1990 and 2000 (%)**

Changes	Mehal-Meda		Kemissie		Antsokia		Total	
	DWR	AWR	DWR	AWR	DWR	AWR	DWR	AWR
Increased	46.3	49.3	41.8	39.9	21.1	14	35.5	33.1
Decreased	24.3	25.7	9.3	14.8	35.6	38.5	22.9	26.3
No change	29.4	21.3	38.5	31.7	36.1	31.3	35.1	28.7
Not applicable	0	3.7	10.4	13.7	7.2	16.2	6.4	11.8

DWR= Dry weather roads AWR= All weather roads

Source:

→ Was there movement of people/village, or resettlement, or previous roads are not there any more?

CCRDA

11. OWNERSHIP OF LAND AND OTHER ASSETS

11.1 Ownership of Land and Farm Implements

In rural Ethiopia, per capita ownership of assets is very small. Obviously, this reflects abject poverty in the country. The following table indicates the proportion of rural households in Ethiopia owning major assets.

Table 25: **Distribution of Households Owning Assets (in Rural Ethiopia)**

Asset	Percent
Plow	62.8
Sickle	78.5
Radio	8.3
land	97.0

Source: CSA (1999). Welfare Monitoring Survey.

Farmers in the study areas cultivate extremely small plots of land. The average holding size for the three ADPs stands at 0.87 ha. In Kemissie an average holding size of 0.76 has been reported (Table 26 & figure 8). A considerable proportion of households (39% in Mehal-Meda, 45% in Kemissie, and 32% in Antsokia) operate on crop land amounting to less than half hectare. As much as 88% of samples households in the ADPs operate on cropped area amounting to 1 hectare or less.

Problems of land shortage in the ADPs are more serious than the zonal-level problems as indicated in the following Table. For the ADPs together, about 13% of the households operate on area less than 0.10 hectare, whereas, at the zonal level only o.15% operate on the same size of holding. In addition, at the zonal level, 25% of the total households operate on areas between 2.01 and 5 hectares as compared to a mere 1% for the ADPs. All in all, farmers in ADPs are less endowed with land as compared to other farmers in North Shewa and Oromiya zone (see Table 27).

CCRDA

Landlessness is a conspicuous problem in the area. Of the total sampled households in the study ADPs, about 7% owned no land. In Kemissie, where the holding size average 0.76 ha, 12% of the households reported landlessness.

The results of the survey suggest that most of the land in the study area is used for crop cultivation and very little is left for grazing or following of the individual plots. (However, extensive communal grazing lands are available in the three ADPs).

For farmers in Mehal-Meda, the size of holding has significantly declined during the 12 months preceding the survey. There, as much as 58% of the sampled households reported a decline in the size of holding[15]. In the other ADPs, lesser proportions of households reported decline in the size of holding. That is, in Antsokia 27% reported a decline in the size of holding, while in Kemissie 10% reported the same.

Land markets do exist in the study ADPs as it is the case in other parts of rural Ethiopia. These markets manifests themselves usually in the from of sharecropping. The literature suggests that households rent out land because of shortages of complementary inputs (like draft oxen, adult male labor). In the study ADPs, 11% of sampled households reported renting out land. This proportion is quite higher (18%) in Kemissie, and in Mehal-Meda. In Kemissie (where 21% of the households are headed by largely elderly women), it is possible that labour deficit households, earn their living by renting out land.

On the other hand, some farmers rent in land because they do not have enough land to cultivate relative to availability of complimentary inputs. In the study ADPs, 16% of sampled households rented in land.

[15] As land redistribution measures were not reported during the reference period, the decline in holding size in Mehal Meda could be contributed to re distribution within families due to population pressure, involuntary withdrawal of land from cultivation (say, due to increased soil erosion), etc.

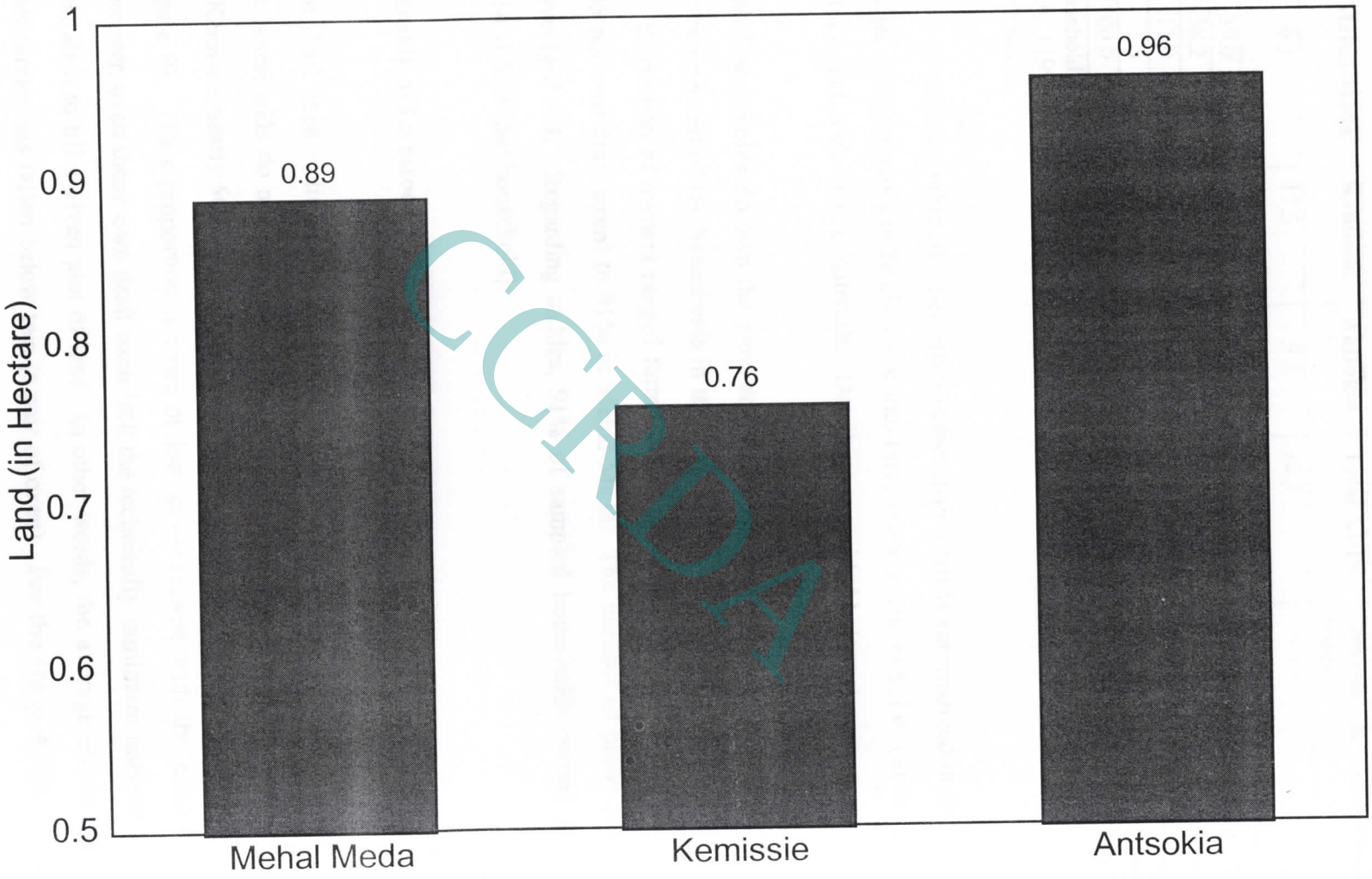
CCRDA

Table 26: **Land Ownership and Sharecropping**

No	Assets	Mehal Meda	Kemissie	Antsokia	Total
1	Percent of owning land	94.90	88.00	96.20	92.80
2	Average size of holding (ha)	0.89	0.76	0.96	0.87
3	Minimum size of holding (ha)	0.25	0.06	0.06	0.06
4	Maximum size of holding(ha)	3.50	3.00	3.50	3.50
5	Average size of crop land (ha)	0.78	0.71	0.81	0.77
6	Percent of hhs reporting a decrease in the size of holding	58.10	9.9	26.70	29.60
7	Percent reporting no change in the size of holding	40.3	83.20	71.00	66.70
8	Percent of hhs renting out land	13.2	17.50	3.80	11.40
9	Percent of hhs renting in land	23.5	15.80	10.90	16.10

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Figure 8. Average Size of Land Holding (Ha)



CCRDA

Source:

Source: Household survey

Table 27: **Frequency Distribution of Households by Crop Land Size (%)**

Size (ha)	Mehal-Meda	Kemissie	Antsokia	Total ADPs	Oromia & N.Shewa zones
Less than 0.10	10.3	17.5	9.8	12.7	0.15
0.10 - 0.50	39.0	44.8	31.7	38.4	10. 99
0.51-1.00	38.2	27.9	45.4	37.1	26.04
1.01-2.00	11.0	8.7	12.6	10.8	36.63
2.01-5.00	1.5	1.1	0.5	1.0	25.11
Total	100.0	100.0	100.0	100	100.0

Sources 1. Household Survey
2. CSA (1996) Agricultural Sample Survey 1995/96, Report on Crop Land Utilization.

The information on the ownership of other assets (other than land) is summarized in (see Tables 28 & 29). These assets can be classified into three broad categories, i.e., (a) farm tools, b) livestock, and c) electronic materials. Details are provided below.

Most of sampled households do own the plow and sickle, the two most important farm tools. Eighty-two percent of the households in the study ADPs owned the plow (Mofer and Kenber). Proportion of owners ranged form 73% in Kemissie (where 48% of the households do not own draft oxen) to 91% in Mehal-Meda. The number of plows per households averaged 1.3. Regarding sickles, 91% of sampled households owned an average of 2.14 sickles (per household).

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11.2 Ownership of Livestock, Radio and Tape

Ownership of draft oxen is limited to 66.3% of sampled households. In other words, 33.7% of the households do not own draft oxen, a critical factor of production in rural Ethiopia. In Kemissie nearly 50% of the households do not own draft oxen. (see tables 29 & 30 & Figure 9). This proportion is more or less in agreement with the national average. Moreover, even those own draft oxen lack the technically minimum number of draft oxen, required to till a given plot of land. In other words, the average number of draft oxen per farmer has fallen below two (a pair of oxen). For the study ADPs, this

average is 1.5. and ranged from 1.37 in Kemissie to 1.61 oxen (per household) in Antsokia. Shortage of oxen, when combined with shortage of land, makes very difficult the adoption of modern farm technologies. This problem could be more serious in the Kemissie, where both factors of production are more scarce as compared to the other ADPs.

Regarding ownership of cows, the survey has suggested that in two of the ADPs (Antsokia and Kemissie) a significantly lower proportion of sample households owned cows than draft oxen. In Antsokia only 40% of the households owned cows as against 81% for draft oxen. Even in Mehal-Meda, where the proportion of ownership of oxen and cows in equal (80%), farmer keep a lower number of cows (an average 1.18 cows per household) than draft oxen (averaging 1.37 oxen per households). For the three ADPs, the survey has suggested that 47% of sampled households are without cows (as compared to 30% for oxen).

What emerges form this point is that when it comes to the question of choosing among essential productive assets, poor farmers tend to give priority to the most essential one? As every choice involves a sacrifice, it is evident that resource poor farmers forego milk for their children as they attempt to maintain a certain number of oxen at the expense of cows.

Pack animals have received even less attention than cows when it comes to choices among domestic animals. In areas where there is extreme shortage of individual grazing land and chronic drought pack animals are likely to be set aside in favor of more essential animals (see Dejene and Adugna, 1999). Thus, camels are owned by an insignificant proportion of sampled households (1.7%) even in the Kemissie area where the altitude is suitable to the raring of these animals[16]. Horses are kept in significant numbers only in

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16 The information on camel should be interpreted with caution. Perhaps, because of its extremely high value, some respondents may be reluctant to give the correct information about ownership of oxen. Reported ownership of camel in Mehal-Meda (a cold and high altitude area) could be attributed to the possible practice of keeping camels in kola areas (only 2hh reported).

CCRDA

Mehal-Meda, where 16% of sampled households reported ownership of an animal that in past used to be a ubiquitous animal among Ethiopia highlanders. Ownership of mules is limited to 3% of sampled households as compared to 6% for horses. On the other hand, donkeys are still important among the rural population, perhaps, because they can endure hardship and require less feed than horses and mules. Moreover they can be easily utilized by women and children because of their small size and their docile behavior. In the study areas, 40% of sampled households owned donkeys. This brings donkeys to the third rank after oxen (70%) and cows (53%). In fact, in Antsokia (where 57% of the households own donkeys) proportionately more people own donkeys than cows.

Small ruminants are kept by a considerable proportion of farmers. In Mehal-Meda, an area that has huge but untapped potentials for sheep-based agro-industry 64% of sampled households reported ownership of sheep. There, a household keeps, on average, seven sheep. In the other ADPs only a smaller proportion of households (11 to 12%) owned sheep. Goats are owned by 17% of sampled households in the study ADPs.

Improved breeds of poultry have become popular among households in the ADPs. It is encouraging to note that 27% of sampled households kept improved breeds of chicken. Perhaps, this is an area that needs further attention form WVE and the government.

CCRDA

An overwhelming majority of sampled household in the three ADPs (79%) reported that livestock production has declined in the 1990s. The proportion of sampled household reporting such a decrease ranged form from 70% in Antsokia (where shortage of grazing land is reported to be an acute problem) to 90% in Mehal-Meda (where animal diseases are reported to be a number one problem). The top major problems of the livestock sector have included shortage of grazing land and animal diseases. (see also WVE 1997 b: 22). quite few people own radio and tape recorder. The former is owned by 7% of sampled households and the latter by 4%. The mean ownership was 1.4 radios and 1 tape per

→ When feed is a major cause of decline, where is, then, the role of the "agro-forestry" practice (fodder prod=)? (Mentioned in part IV)

household in Mehal-Meda, 1.17 radios and 1.25 tapes[17] tapes in Kemissie, and 1 radio 1tape per household in Antsokia. As to the opinion of farmers, about 10% of the respondents reported an increase in the ownership of radios and tapes over the period 1990-2000.

Table 28: **Ownership of Assets: Proportion of Households Having assets (%)**

No	Assets	Mehal Meda	Kemissie	Antoskia	Total
1	Plow (mofer/ kenber)	91.1	73.1	85.1	82.3
2	Sickle	96.3	83.5	94.9	91.1
3	Draft oxen	80.5	51.7	81.2	66.3
4	Cows	8.5	42.5	39.8	53.0
5	Camels	1.7	2.4	1.0	1.8
6	Horses	16.1	1.2	1.0	5.9
7	Mules	5.0	1.8	2.1	2.9
8	Donkeys	61.5	10.7	56.8	40.1
9	Goat	15.6	15.9	20.6	17.0
10	Sheep	64.4	12.0	11.0	29.1
11	Improved breeds of poultry	26.4	31.0	23.4	27.5
12	Radio	8.3	7.2	5.3	7.1
13	Tape	2.5	4.8	3.2	3.7

Source: Household survey

Table 29: **Average Number of Assets per Household**

No	Assets	Mehal Meda	Kemissie	Antoskia	Total
1	Plow (mofer/ Kinber)	1.39	1.31	1.22	1.30
2	Sickle	2.31	2.04	2.10	2.14
3	Draft oxen	1.37	1.53	1.61	1.51
4	Cows	1.18	1.88	1.25	1.42
5	Camels	1.00	1.50	2.00	1.43
6	Horse	1.05	2.00	1.00	1.13
7	Mules	1.00	1.69	1.00	1.18
8	Donkeys	1.34	1.33	1.12	1.24
9	Goats	2.47	2.78	3.55	2.94
10	Sheep	6.82	2.35	2.45	5.64
11	Improved breeds of poultry	2.03	2.49	2.85	2.65
12	Radio	1.40	1.17	1.00	1.22
13	Tape	1.00	1.25	1.00	1.14

Source: House hold survey

[17] Note that individual household members may have their own radios and tapes

It would have been better to separate the livestock as a live asset and measure in TLU, than mixing with tools and implements.

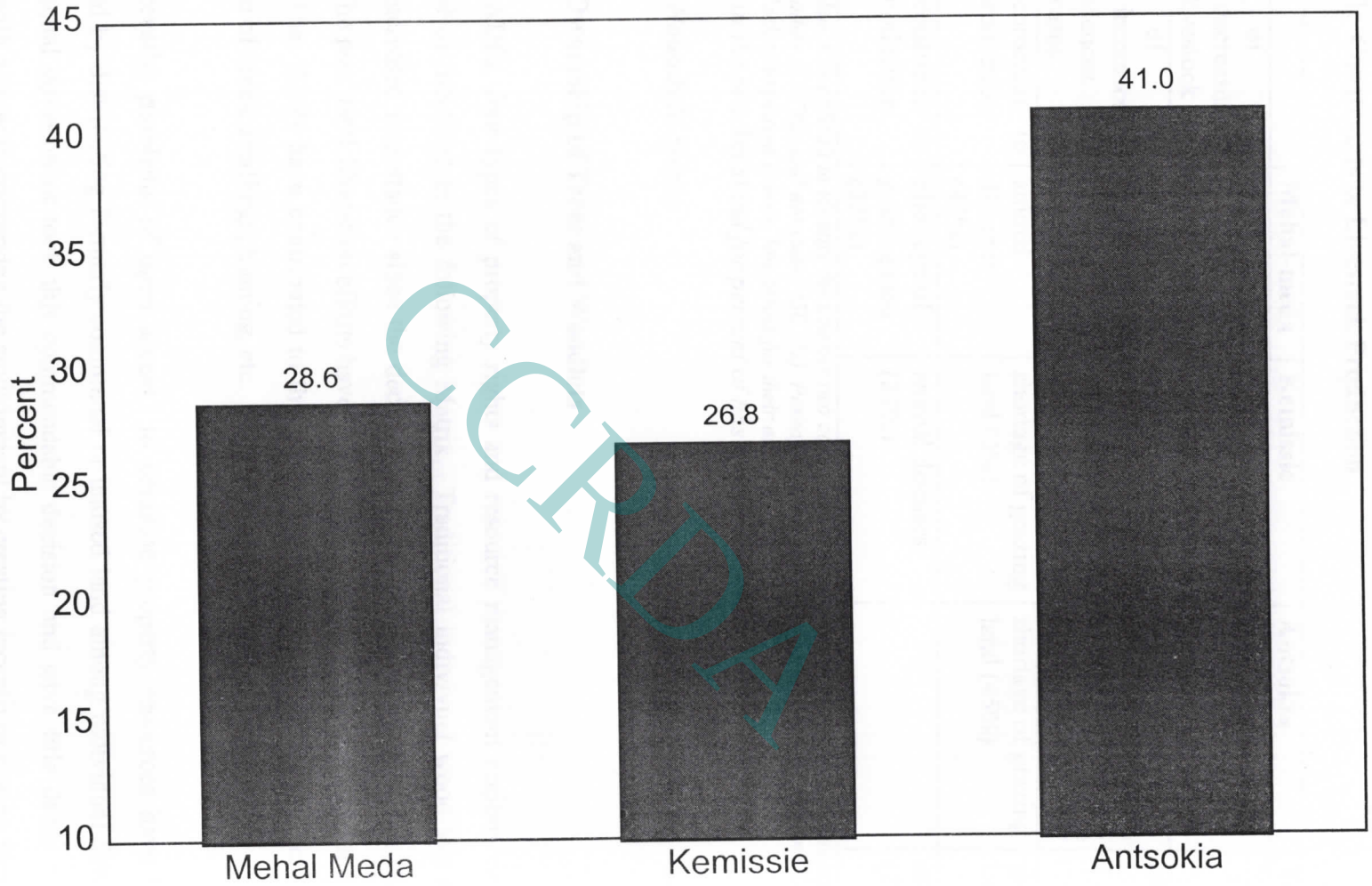
CCRDA

Table 30: **Frequency Distribution of Oxen (%)**

Ownership	Mehal-Meda	Kemissie	Antsokia	Total
Without oxen	21.3	49.7	26.8	33.7
One ox	50.0	23.5	32.2	33.9
Two oxen	27.9	26.8	38.3	31.3
More than 2 oxen	0.7	0	2.7	1.2
Total	100.0	100.0	100.0	100.0



Figure 9 Percent of Households Having Two or More Oxen



CCRDA

Source: Household Survey

Table 31: **Constraints to Livestock Production**

Variables	Mehal-meda	Kemissie	Antsokia	Total
Percent of hhs reporting decreases in the no. of livestock	89.7	79.7	70.3	79.0
Percent of hhs reporting increases in the incidences of animal diseases	47.1	64.5	21.0	44.0
No. one constraint to livestock production	animal diseases (42%)	shortage of grazing land (3%)	shortage of grazing land (45%)	shortage of grazing land (36%)
No. two constraint to livestock production	Shortage of grazing land (32%)	animal diseases (27%)		animal diseases (25%)

In Antsokia, it is difficult to identify the number two constraint. What we have is as follows: cattle disease (10.9%); other (13.7%); and not stated (30.1%). Perhaps, farmers in Antsokia face other problems like VT services, lack of improved breeds, low prices for their animals, etc.

Figures in the bracket stand for percent of hhs responding

Source: Household Survey

CCRDA

11.3 Ownership of Trees and Woodlots

In the ADPs, four types of property rights and resource management regions can be identified as indicated in the following Matrix. Traditional indivivual wood lots have gained increased importance since the declaration of Mixed Economy Policy in March 1990. The post 1991 liberation efforts have contributed to the expansion of trees and tree corps. The ADPs have contributed to this of asset through different means including provision of seeds, seedlings, training, etc.

More recently, problems of open access to common property resources have been addressed by distributing formerly communal or unused land among individual farmers. The regional government took this commendable decision and gave title deeds to the holders with a view to conserving the environment by creating incentives among farmers. The ADPs have undertaken vigorous advocacy work to encourage the regional

government to undertake this type of institutional innovation. Distributed woodlots are currently at an experimental stage.

Communal closure areas are being protected by volunteers representing relevant PAs. They have incentive in protecting the closure, because there is a plan to reward them with grass from the closure.

Public forestlands, which were widely promoted in the 1980s, are protected by paid guards. The face some problems which are indicated in Matrix 1.

Matrix 1. **Forest and Wood lots in the ADPs: Property Rights and Management**

Types	Types of Property rights	Management	Comments
Traditional	Private	Individuals take care of the trees and protect them	Well-protected by individual farmers: important source of cash income; ADPs have vigorously prompted agro forestry schemes
Distributed wood lots	Private	Individuals take of trees & protect them	Originally state land or community resources subjected to destruction (open access), an institutional innovation undertaken by Amhara Regional state.
Communal forests and wood lots (and are closure)	Common property	Protected by volunteers from PAs. Could be rewarded with grass from closures	Uses of trees determined by PA officials; sometimes people lack incentives to protect
Public forest	State property (some times open access)	Protected by paid guards	Usually large size; farmers often lack incentives to protect it, competes with individual farmlands, not effectively protected, there could be some success stories

CCRDA

Trees constitute other assets. A considerable proportion of sampled households, (30%) said that they had wood lots on their own holdings at the time of the survey. The area under trees which ranged form 0.65 ha. in Kemissie to 1.01 ha. in Antsokea, averaged 0.90 hectare per household (see table 32 & Figure 10). Individual trees have become quite important in Antsokia, where WVE have heavily invested in afforestation programs since mid 1980s.

According to the household survey, the target households, have quite large numbers of trees per households. For the three ADPs, an average household has 253 trees on his(her) plot. Again ownership of tress has been quite high in Antsokia. There, an average household owned 366 trees (for each day of the leap year a farmer has one tree!).

As the data from Kemisse (WVE 1997 b:42) shows, the main purposes of tree planting are: for constriction fuel source, cash income, and other purposes. In Kemissie about 20% of the farmers plant trees for sale.

The survey also suggested that the number of trees (per household) is invariably larger in old P.A.s than in new P.A.s. But mixed results are reported regarding area under trees and proportion of households having wood lots. Regarding degree of awareness about the environmental protection (as measured by proportion willing to take primary responsibility to protect community forests), old P.A.s appear to be more aware than old P.A.s of Antsokia and Mehal-Meda (see Annex 8)

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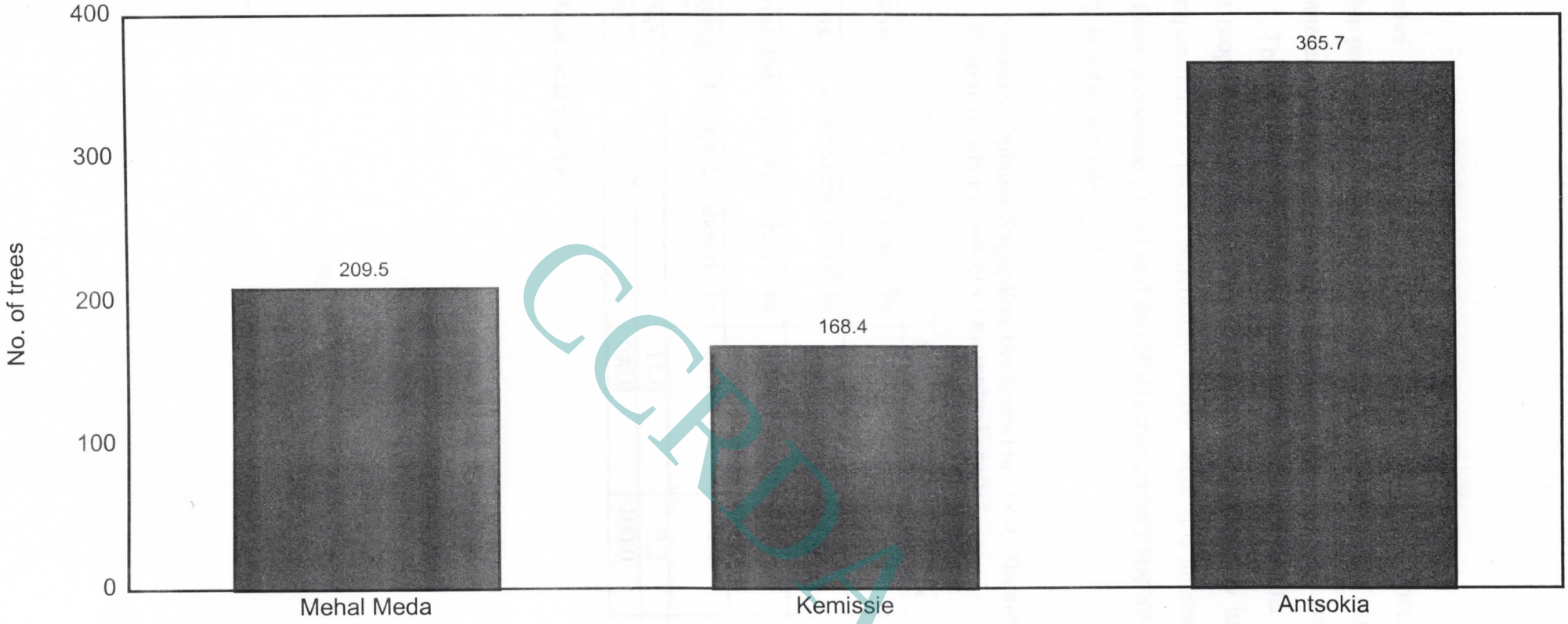
Table 32: **Ownership of Trees and Wood Lots**

Variables	Mehal-Meda	Kemissie	Antsokia	Total
Percent having wood lots	39.70	24.0	27.90	29.70
Average area under trees (timad)	0.97	0.65	1.01	0.90
Av. no. of trees per hh	209.47	168.44	365.71	252.85

But the average cultivated area owned is 0.87 ha. Where does the 0.03 come?

Otherwise, land owned should be clearly defined: Agricultural land, cultivated land, etc.

Figur 10 Average Number of Trees per Household



Source: Household Survey

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Farmers have improved their awareness about protection of community forests. A considerable proportion of sampled households (30%) think that an individual member of the community must be primarily responsible for protecting common property resources. This opinion is conspicuous in Antsokia, in particular. However, a significant proportion (53%) is of the opinion that the community itself should take primary responsibility to protect community forests. Here, it is interesting to note that an insignificant proportion (0.2%) said that NGOs take primary responsibility to protect community forests, (see Table 33).

Table 33: **Farmers' Opinion Regarding the Question: Who Should Take Primary Responsibility to Protect Community Forests?**

Opinions	Mehal-Meda	Kemissie	Antsokia	Total
Percent saying NGOs should be responsible	0.1	0.6	0.0	0.2
Percent saying the government should be responsible	14.7	18.6	7.1	13.3
Percent saying the community should be responsible	43.4	72.7	41.0	53.2
Percent saying "I myself should be responsible"	30.9	6.0	50.3	28.9
Not stated (%)	11.0	2.2	1.6	4.4
Sample Total	100.0	100.0	100.0	100.0

Source: Household Survey.

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11.4 A Note on Clothing

Households were also asked whether today they are better clothed or possess more clothings. A highly significant proportion (42%) in Mehal-Meda and considerable proportions in Antsokia (37%) and Kemissie (28%) reported that the quality and quantity of clothings worn by family members increased between 1990 and 2000. Improvements in the conditions of clothings can be partly explained by factors like possible increases in cash incomes, improved access to market, and decline in the relative prices of some textiles. On the other hand over half of the respondents were of the opinion that both the quality and quantity of clothing decreased over the reference period.

Table 34: **Changes in the Quality and Quantity of Clothings Between 1990 and 2000 (%)**

Changes	Mehal-Meda	Kemissie	Antsokia	Total
Increased	41.9	27.6	36.6	34.8
Decreased	56.6	55.2	50.3	53.8
No change	1.5	15.5	11.5	10.2
Not applicable	0	1.7	1.6	1.2

Source: Household Survey

12. CROP PRODUCITON & YIELDS

12.1 Production of Cereals

Crop production in the study ADPs, has assumed certain noticeable features. First, with the exception of Mehal-Meda, the bulk of the households virtually grow cereals alone (Table 35 & 36). Very few farmers have reported the cultivation of traditional crops like oil pulses and oil seeds. In addition, yields have remained very low (Table 37 & Figure 11)

Yields of major crops are found to be much below the national average. However information on yields should be cautiously interpreted because farmers in the study areas are very likely to underreport their incomes expecting future food aid.

Belg production has virtually been abandoned even in Mehal-Meda, an area well-known in the past for *belg* cropping. Farmers attribute this to unreliability and scarcity of *belg* rains.

Area cultivated and production have been very small as indicated in the following table. The area under teff, which averaged 1.63 *timad*, ranged from 1.9 *timad* in Mehal-Meda to 1.83 in Kemissie. Similarly, production of teff, which averaged 207 kg (per household) ranged form 140 kg in Mehal-Meda to 233kg in Kemissie. More or less similar figures pertain to the other crops.

Table 35: **Mean Area and Production of Major Crops *Meher*, (Area in *timad* and Production in kg)**

Crop	Mehal-Meda		Kemissie		Antsokia		Total	
	Area	Production	Area	Production	Area	Production	Area	Production
Teff	1.09	139.55	1.8	233.07	1.67	211.69	1.63	2.06.26
Barley	1.43	141.21	---	---	---	---	1.47	164
Wheat	1.88	299.64			---	---	1.87	302.06
Maize	---	---	2.32	468.75	1.72	323.00	2.09	412.69
Sorghum	---	---	2.12	390.90	2.05	497.68	2.07	456.89
Horse beans	1.08	124.79	---	---	---	---	1.08	124.79
Misir	1.18	160.71	---	---	---	---	1.18	160.71

– An insignificant number of farmers (valid N insignificant) grow the crop or the crop is not grown in the area.

Source: Household Survey

CCRDA

Table 36: **Major Crops in the Study ADPs**

Rank	Mehal Meda		Kemisse		Antoskia	
	Crop	No. of hhs growing	Crop	No. of hhs growing	crop	No. of hhs growing
1	Wheat	121	Maize	83	Sorghum	140
2	Horse beans	71	Sorghum	82	Teff	124
3	Barley	35	Teff	60	Maize	50
4	Teff	33	Zengda	6	Barely	4
5	Lentils	14	Barely	4	Wheat	2
Sample size		136	---	183	---	183

Source: Household survey

Nevertheless, the report yield data are corroborated by farmers opinions as to whether production of cereals has improved over the period 1900-2000. An overwhelming majority of sampled households in the three ADPS (75%) were of the opinion that production of cereals declined over a ten-year period (see Table 38). Relatively few households (10%) reported increases in the production of cereals. Of course, there are variations among the ADPs. For example in Antsokia, 14% of sampled households reported increases in the production of cereals.

To the extent that, at least, Antsokia is concerned, yields generated by this survey are quite high as compared to estimates given in Nutrition Survey Reports. Regarding teff a yield of 5.56 quintals for Antsokia is much higher than 0.44 quintals (as reported in Nutritional survey) and quite lower than 8 quintals/ha reported during normal years. Similarly for maize in Antsokia, a yield of 8.56 is much higher than a yield reported in the Nutritional survey Report of May 2000 (2 qt/s ha) and, of course, much lower than yield in normal year (22 qt/s/ha). (see Table 37 & Figure 12)

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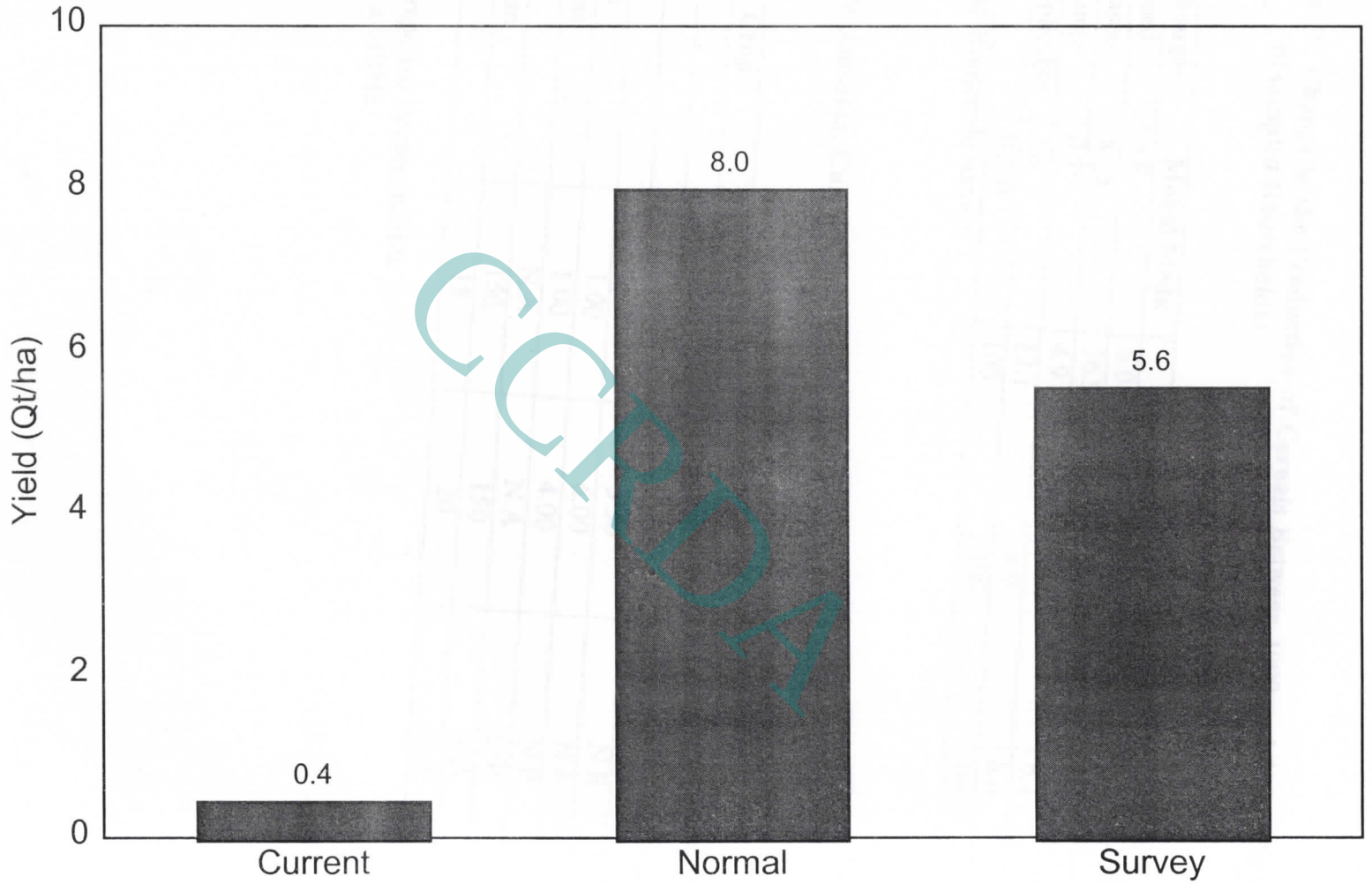
Table 37: **Yield of Major Crops (Qt/ha)** during cropping season ... (year)

Crop	Mehal Meda		Kemissie		Antsokia		Total	N.Shwa	Oromiya Zone
	Meher	Belg	Meher	Belg	Meher	Belg	Meher	Meher	Meher
Teff	5.19	-	5.90	-	5.56	-	5.59	7.08	7.46
Barely	4.25	4.10	-		-	-	4.80	1.74	8.86
Wheat	6.55	-	-	-	-	-	6.72	N.A	10.80
Maize	-	-	9.20	-	8.56	-	8.95	13.7	17.80
Sorghum	-	-	8.89	-	9.96	-	9.54	9.79	12.63
Horse beans	4.80	-	-	-	-	-	-	N/A	N/A
Lentils	5.05	-	-	-		-		-	N/A

- An insignificant number of farmer grow the crop or there is no production
N.A. stands for number data not available

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Figure 11 Current Yield as Compared to Yield Under Normal Circumstances and Survey Result for Teff only



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Sources: 1. Household survey
2. CSA (2000). Agricultural Sample Survey 1999/2000. Area and Production of Major Crops, Bulletin 227.

Table 38: **Changs in the Production of Cereals Between 1990 and 2000 (Percent of sampled Households)**

Changes	Mehal Meda	Kemissie	Antsokia	Total
Increased	8.8	6.0	14.2	9.8
Decreased	81.6	76.9	69.4	75.4
No change	0.7	4.9	11.5	6.2
Not applicable	8.8	12.1	4.9	8.6
Total	100.0	100	100	100.0

Source: Household survey

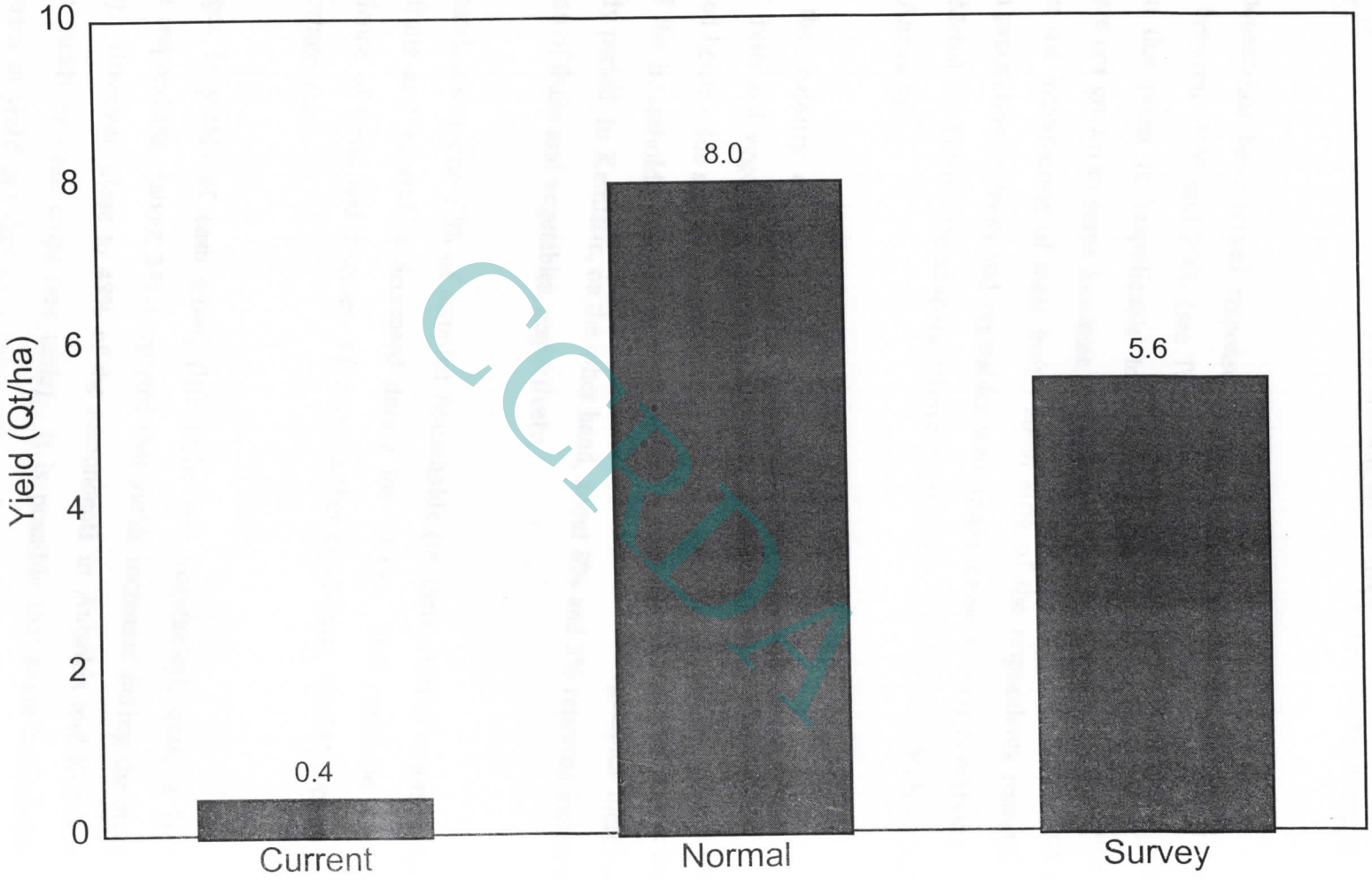
Table 39: **Antsokia: Current yield as Compared to Yield Under Normal Circumstances (Qtl/ha)**

Crop	Current	Normal	This survey (meher)
Teff	0.44	8.00	5.56
Maize	2.00	22.00	8.56
Peas	1.05	5.50	N.R
Chickpeas	1.00	6.00	N.R
Horse beans	1.00	4.00	N.R
Sorghum	N.A	N.A	9.96
Sweet potato	150	150	N.A
Pepper	15	20	N.A

N.R= Not reported by respondents
N.A = Not available

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Figure 12 Current Yield as Compared to Yield Under Normal Circumstances and Survey Result for Teff only



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12. 2 Production of Cash Crops

Above we considered production of traditional crops, mainly subsistence crops. What about production of cash crops, which have been introduced by WVE and others during the 1990s and earlier?

Sampled households have mixed response as to change in the production of fruits and vegetables between 1990 and 2000 (see Table 39). The majority (61%) reported that the question on this point is 'inapplicable' to them. Perhaps, this suggests that fruits and vegetables are not grown in some localities. In particular, in Mehal-Meda (where ecological factor hinder the introduction of most fruits) about 80% of the respondents reported that questions on production of fruits and vegetables were inapplicable to their conditions. Thus we dropped Mehal-Meda from the analysis. (However, the case of potatoes in Mehal-Meda is presented in Annex 8)

In Antsokia the majority of the households considered this question (changes in the production of fruits and vegetables) as relevant. In particular, with reference to fruits, only 29% of sampled households said that this question was irrelevant to their conditions. In fact, about 27% of the households reported that production of fruits and vegetables increased during the study period. In Kemissie, on the other hand, about 8% and 3% reported increases in the production of fruits and vegetables, respectively.

On the other hand, about one fifth of sampled households (in three ADPs) reported that production of fruits and vegetables decreased during the 1990s. This could be due to increased prevalence of pests and diseases, adverse weather conditions, market problems, increase land shortage, etc.

Regarding changes in yields of cash crops, (life fruits and vegetables), quite a large proportion of the respondents (about 34%) reported that yields increased during the study period (Table 40). However, close to 48% of the respondents in Antsokia and Kemissie reported a fall in yields of cash crops (see table). It is possible that some households experienced increases in yield but decline in total output of cash crops partly because of significant decline in land allocated to the production of cash crops. Other explanatory factors

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may include erratic rainfall, flooding soil degradation and the prevalence of pests and diseases.

Table 40: **Changes in the Production of Fruits and Vegetables Between 1900 and 2000 (Percent of Sampled Households)**

Changes	Kemissie		Antsokia	
	Fruits	Vegetables	Fruit	Vegetables
Increased	8.4	3.4	27.0	26.4
Decreased	26.3	20.7	33.1	23.0
No change	9.5	13.4	10.7	3.4
Not applicable	55.9	62.6	29.2	47.1
Total sample	100.0	100.0	100.0	100.0

Source: Household Survey

Table 41: **Changes in the Yields of Cash Crops Between 1990 and 2000 (Percent of Sampled Households)**

Changes	Kemissie	Antsokia
Increased	34.4	34.6
Decreased	47.5	48.9
No change	5.5	12.6
Total sample	100.0	100.0

Source: households survey

Modern Farm Inputs

Regarding changes in the use of modern farm inputs, the majority of the respondents were of the opinion that to day they use more of modern inputs as compared to ten year ago. This view is underlined in Mehal-Meda, where 68% responded in the positive (see Table 42).

Table 42: **Changes in Modern Farm Inputs Between 1990 and 2000 (Percent of Sampled Household)**

Changes	Mehal-Meda	Kemissie	Antsokia	All
Increased	67.6	37.9	29.5	43.1
Decreased	27.2	24.2	14.2	21.5
No. Change	2.9	20.9	9.7	11.9
Not applicable	2.2	17.0	46.6	23.5
Total Sample	100.0	100.0	100.0	100.0

Source: Household Survey

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12.3 Problems of Crop Production

Physical factors constitute major constraints to crop production. According to the results of the household survey, the three most prevalent constraints to crop production in the study areas are, in order of importance, pests, flooding, and soil fertility losses (See Table 44). Rain fall variability and inadequacy is another serious problem (see Table 44 & Figure 13). Recent years saw the emergence of new pests and increased prevalence of existing ones. Farmers themselves have suggested that the prevalence of plant pests increased during the1990s. According to the response to the question on comparison of life today and life ten years ago, the proportion of households subscribing to this view has come to 72% in Kemissies. Regarding problem of plant pests and diseases in Kemissie, a document of WVE (WVE 1997 b: 21) reported that crop diseases and pests in Kemissie" are one of the major causes for the low productivity or loss of production after harvest. Of all problems associated with pests, the presence of striga, a parasite weed which is difficult to control, is a real threat to crop production.

Flooding is the single most devastating scourge in Kemissie and Antsokia. For some P.A.s in Kemissie, flooding could affect as much as 60% of cropped land and could cause damage to 50% of the potential output. In particular, maize is highly susceptible to flooding (Monthly Status Report of August 1998). WVE has attempted to control seasonal flooding in Borkena Valley as can be witnessed by the Antoskia II ADP flood protection and Drainage scheme (see Metaferia Cosnulting engineers MCE, 1997). This scheme has resulted in the reclamation of 597 ha.of once swampy land.

Although the reclaimed land was put to agricultural productive activities, certain adverse effects were identified by MCE (1997). However, the consultants concluded that " the study has not revealed any endangered species of plants and animals in the project area", resulting from the scheme.

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Table 43: **Major Constraints to Crop Production in Order of Importance**

Constraints	Mehal-meda	Kemissie	Antsokia	Total
No. one constraint	Pest (49.3%)	Flooding (43.3%)	Soil fertility loss (37.2%)	Pest (33.9%)
No. two constraint	Soil fertility loss (14.7%)	Pest (26.2%)	Pest (30.1%)	Flooding (23.7%)
No. three constraint	Lack of & delay in rain fall (12.5%)	Soil fertility loss (10%)	Flooding (16.4%)	Loss of soil fertility (21.5%)

Figures in bracket stand for percent of hhs responding
Source: Household Survey.

Table 44: **Rain Fall Conditions in Kemissie and Mehal-Meda**

Year	Mehal-Meda	Kemissie
1983	860.3	N.A
1984	347	N.A
1985	668.4	N.A
1986	897.5	N.A
1987	706.5	N.A
1988	948.7	1282.7
1989	814.8	919.91
1990	N.A	636.6
1991	N.A	900.12
1992	898.1	867.6
1993	758.5	1127.5
1994	959.2	1117.8
1995	854.5	1032.9
1996	1014.2	1368.6
1997	N.A.	700.3
1998	1049.6	N.A
1999	924.3	N.A

Source: National Meteorological Service.

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13. HOUSEHOLD INCOME AND EXPENDITURE

13.1 Household Income

The mean annual cash income, which ranged form Birr 1,016 in Antsokia to Birr 1,981 in Kemissie, averaged Birr 1550 for the three ADPs. For the study ADPs, minimum annual income was as low as Birr 21, while maximum income was as much as Birr 10,190 per household[18]. The standard deviation ranged form 775 in Antsokia to as much as 1,729 in Mehal-Medal (see Table 45). Such a wide standard deviation suggests a high degree of income differentiation within the peasantry.

Frequency of income distribution is shown in (Table 46). In Kemissie 14% of the households reported annual income amounting to less than Birr 100. This could be due to problems of underreporting of income. A quarter of sampled households earn income ranging from Birr 600 to 1399. Very few households (an average of 1.6%) earn income more than Birr 4000 per year.

The major sources of cash income have varied from ADP to ADP (Table 47). In Mehal-Meda, where 96% of sampled households received relief food during the reference period, estimated value of relief food came to Birr 1,466 per household per year). This is followed by wages (average Birr 678), livestock (Birr 530) sales of firewood (Birr 259), and sales of eucalyptus trees (Birr 111) (see Table). In Kemissie wage work is the main source of income (average, Birr 84.5). The other major sources are, in order of importance, sales of cereals (Birr 819), sales of livestock (Birr 813), gift and remittance (Birr 680), and sales of firewood (Birr 659). In Antsokia, the major sources of income are livestock (Birr 576), wages (562), sales of onions (Birr 555), gift and remittances (Birr500), and sales of coffee (406). These are followed by chatt (Birr 391) cereals (Birr 356), and eucalyptus tree (186).

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[18] As minimum and maximum values stand for outliners, it is not necessary to indicate the number of households falling within the extreme values. Most likely, there will be one household on each side of the extreme values.

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Table 45: **Annual Income of the Households** (year?)

Variables	Mehal-Meda	Kemissie	Antokia	Total
Mean income (Birr/hh)	1,981.41	1,760.39	1,016.04	1,550.42
Minimum (Birr/hh)	200.00	40.00	21.25	21.25
Maximum (Birr/hh)	9720.00	10,190.00	4,280.00	10,190.00
Standard deviation	1,728.96	1,445.89	775.42	1,399.11

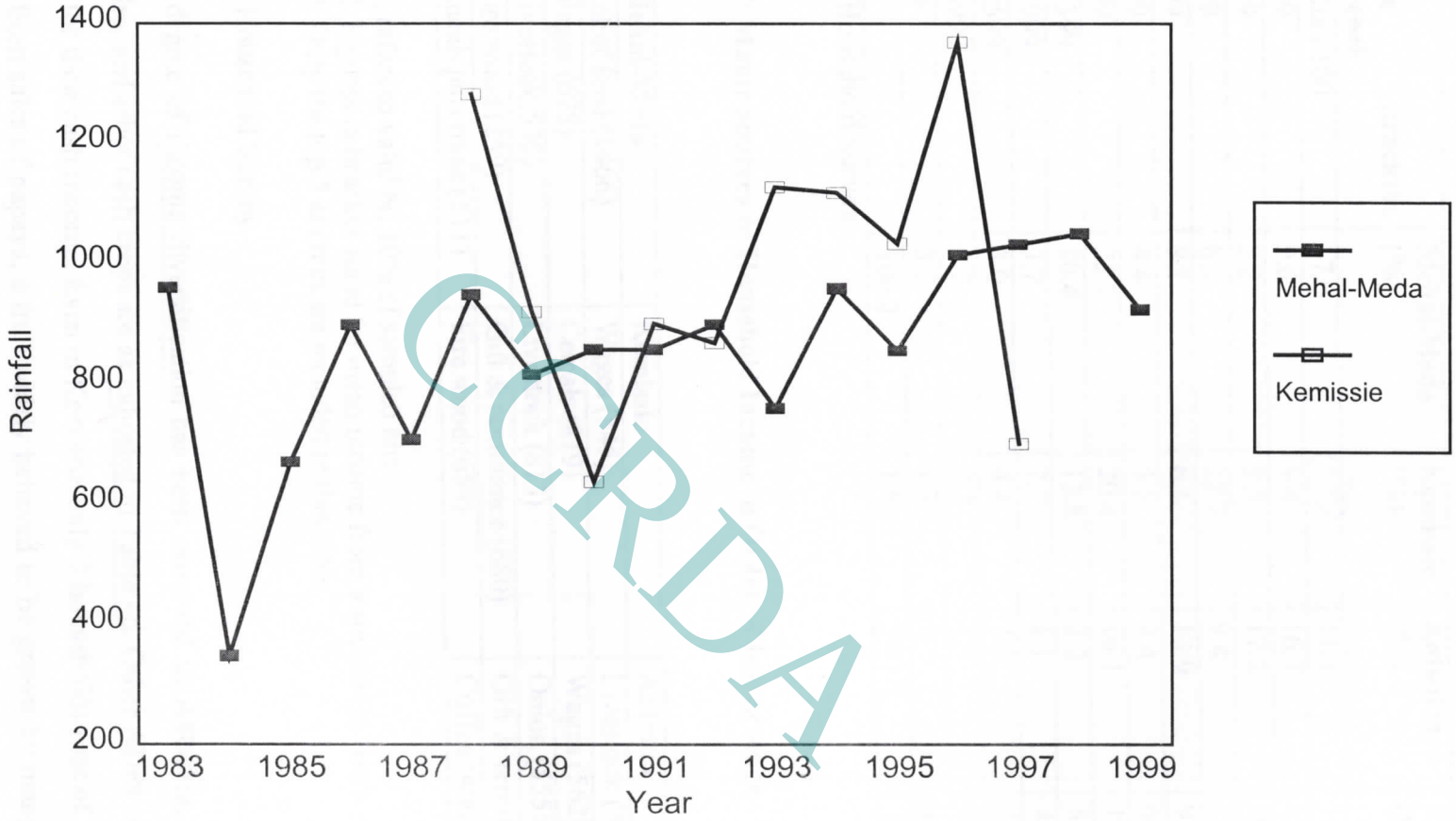
Source:

When we look at the income distribution given on page 112 paragraph 2, this table exagrates the income situation (the maximum). Frequency distribution would give more realistic picture!

↳ Seen on page 115 ✓ alright.

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Figure 13. Rainfall Conditions in Kemissie and Mehal-Meda ADPs



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Source: Household Survey

Source: Household Survey

Table 46: **Frequency Distribution of Households by Income Brackets**

Income brackets (Birr/year)	Mehal-Meda (%)	Kemissie (%)	Antsokiays (%)	Total (%)
Laess than 100	17.0	7.7	11.1	11.5
100-199	9.6	9.4	16.7	12.1
200-299	5.2	8.3	17.2	10.7
300-399	8.9	12.7	9.4	10.5
400-499	8.1	6.1	13.9	9.5
500-599	4.4	5.5	9.4	6.7
600-699	23.7	20.4	16.1	19.8
1000-1399	10.4	13.8	2.2	8.7
1400-1999	3.7	7.7	1.1	4.2
2000-2599	3.0	4.4	1.1	2.8
2600-3999	2.2	2.2	1.7	2.0
4000 +	3.7	1.7	0	1.5
Total	100.0	100.0	100.0	100.0

Source: Household Survey

Table 47: **Major Sources of Household Income in Order of Importance**

Rank	Mehal-Meda	Kemissie	Antokia
1.	Relief food (1466)	Wages (845)	Livestock (576)
2.	Wages (678)	Cereals (819)	Wages (562)
3.	Livestock(530)	Livestock (813)	Onion (555)
4.	Fire wood (259)	Gift & remittance (680)	Gift & remittance (500)
5.	Eucalyptus trees (111)	Fire wood (659)	Coffee (406)

Notes: 1. refers to valid N: 10% of sampled hhs
2. Figures in bracket stand for mean income from a source (in Birr)
3. Only the top 5 sources are included in this table.

Source: Household Survey

A high degree of income diversification has been observed in Antsokia, where fruits, vegetables, and other cash crops are as indicated in Table 46. Other ADPs rely on limited sources for their cash income. Even in Kemissie only 3 households (out of 183) reported income from sales of papaya, a fruit widely believed to be grown by many households.

Table 46 does not necessarily show income diversification. It shows there is variation, which is not much different from others. Better refer to table 48.

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But this report does not tally with information gathered through personal observation. Under reporting of income is obvious.

Table 48: **Antsokia: Average Income Generated From Fruits and Vegetables and other Cash Crops (Birr/hh/year)**

Fruits and Vegetables	Antokia
Sales of papayas	94.09
Sales of bananas	122.22
sales of coffee	405.98
Sales of citrus fruits	158.00
Sales of other fruits	74.92
Sales of chat	391.18
Sales of Sugarcane	260.38
Sales of onion	555.00
Sales of other vegetables	286.44

Note: The information given in this table refers only to sources of income valid for 5% of the respondents.

Source: Household Survey.

The importance of and risk associated with cash crops is illustrated with reference to the case of onions in Antsokia (Box 1). Similarly, box 02 illustrated problems associated with income diversification efforts of the ADPs.

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Box 1 Onion : A Lucrative but risky cash crop in Antsokia

Today onion is grown in the kolla areas of Antsokia as a major source of cash income. Farmers told us that previously onion was grown only in the Majete area as a cash crop. The cultivation of this crop has became widespread only during the last four years. Farmers themselves have introduced it here. What WVE provided is irrigation facilities for the cultivation of onions. As onion seeds have to be bought each season, farmers have to buy seeds from traders who bring those seeds from distant places like Hararge, Wellega, and Gojam (?). Farmers need enormous cash income to buy seeds (They cannot reproduce their own seeds). Farmers say that onion is a highly risky crop. A pest they call "mich" (trip?) can wipe out the entire crop in one go. In the absence of "mich", onion is highly profitable. A farmer can reap from one timad of land (1/4 of ha) Birr 1000, which is double what he could get from maize grown on the same land area. One member of discussion group commented that "the decision to grow onion is like gambling. You gain a lot this year. Next year you may find that there is nothing to harvest. "Another told us that once he borrowed Birr 400 from the Agricultural Office and bought onion seeds. He repaid his debt and made profit amounting to Birr 1500. The following year things went bad; he went bankrupt as onion fields were attacked by "mich". Only those who have cushion against crop failure can engage in the cultivation of onion. Not a single farmer specialize in the cultivation of this cash crop. Because of their survival algorithm, farmers grow onion only side by with subsistence crops. The case of onion production in Antsokia demonstrates complementary participation of farmers, civil society (i.e. an NGO), and the private sector in the development process. But, what concrete role the government played in the promotion of this cash crop is not obvious.

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Box 2 : Irrigation and Crop Diversification Efforts in Mesele-Mariam P.A Mehal-Meda: A look at institutional constraints

Micro-irrigation practices are not new to the people of Gera- Keya woreda; over decades they have been cultivating vegetables on small and isolated plots in order to supplement their regular food items and to meet their cash needs. However, they made no attempt to tap the potentials of the River Shay until the time 300 households pooled their resources and established a cooperatives farm with a view to diverting the River Shay for irrigation purposes. The idea of using this river for irrigation purposes was a result of demonstration effects of the nearby elementary school, which set up a small-scale irrigation scheme to acquaint students with practical agriculture. During the initial year, members of the cooperative farm reaped Birr 11, 000 from the sales of potatoes. In addition, they distributed among themselves (for consumption purposes) other vegetables like gartic and onions. This has resulted from the cultivation of 4 hectares of irrigated land. The following year, 1984/85, the area was hit by a devastating drought as elsewhere in Ethiopia. It was at this time that the woreda agricultural office came into the picture in response to the calamity hovering over the local people. It provided the cooperative farm with farm inputs and technical advice. The outcome of the combined efforts of farmers and the agricultural office was that irrigation agriculture succeeded in mitigating the a diverse effects of the drought on the livelihoods of members of the cooperative farm.

However, the cooperative farm faced several problems in managing the irrigated farms. The earth canals (that were meant to divert water to the field) needed frequent maintenance as they were often damaged by flood. Water logging was another problem. These problems prompted the farmers to request the support of WVE in 1993. WVE responded positively to their request and upgraded the irrigation scheme. It completed the construction of a weir and a canal in 1995.

However, the irrigated farm was significantly underutilized. Only 5 hectares of land was cultivated out of the 10 ha. irrigated land. This problem can be explained by the following factors: (1) lack of recognition of the development committee of the cooperative farm (by woreda officials set up by the new government); (2) the inability of new P.A. leaders to promote irrigated farms; (3) lack of viable technical support from the woreda agricultural office;(4) lack of market for the products of the farm; (5) crop damage by animals coming from the nearby grazing areas; (6) crop damage caused by porcupines; (7) the extremely small size of plots (per farmer) discouraged farmers from making use of irrigated land; (8) some farmer think that the (irrigated) land is more suitable to barley (a crop traditionally planted in the area) than to vegetables; and (9) farmers are unable to get seeds (for potatoes) at the right time. The last factor which farmers consider as the most serious problem these days can be explained as follows. As farmers cannot reproduce their own seeds, they have to rely on the woreda agricultural office for seeds purchased from distant places. The delivery of seeds has always been delayed. As all farmers get the seeds at the same time (mostly in February, which is the wrong time) they harvest potatoes at the same time thus creating a glut in the local market. The market is also affected by the fact that currently many households grow their own potatoes, albeit on minute scale. This is said to be the result of demonstration effects of the irrigated farm. Besides, late planting means harvesting of potatoes during the wet season (in June). Potatoes harvested during a wet season do not produce good seeds. That is why farmers are not using their own seeds. In addition, potatoes harvested during a wet season give only low yields.

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* Normally irrigated plots (also elsewhere) are smaller than rainfed. Multiple cropping and higher yields render incentive. Why is smaller plot size considered as a problem?

Again, in this example the synergy between farmers' initiatives and an NGO is evident. The problem lies with micro-level policies and capabilities of the local government with respect to institutional and agronomic problems prevailing in the area*.

Regarding changes in the sources and amount of cash income during the 1990s, an over whelming majority of sampled households were of the opinion that they experienced decreases in the both variables (See Tables 49 & 50). Eighty percent of the households reported a decrease in the sources of cash income, while 74% reported a decrease in cash income earnings. This could be due to erratic rainfall, increased prevalence of pests and diseases, flooding problems, soil degradation, marketing problems, land shortages, etc. But as usual, form often attempt out underreport their incomes.

Table 49: **Changes in the Sources of Cash Income Between 1990 and 2000 (percent)**

Changes	Mehal-Meda	Kemissie	Antsokia	Total
Increased	11.1	7.1	8.2	8.6
Decreased	81.5	78.1	80.2	79.8
No change	2.2	13.1	8.8	8.6
Not applicable	5.2	1.6	2.7	3.0
Sample total	100.0	100.0	100.0	100.0

Source: Household survey

Table 50: **Change in the Amount of Cash Income Between 1990 and 2000 (percent)**

Changes	Mehal-Meda	Kemissie	Antsokia	Total
Increased	3.7	3.3	3.9	3.6
Decreased	80.0	65.6	77.9	73.9
No change	0.7	8.7	12.2	7.8
Not applicable	15.6	22.4	6.1	14.6
Sample total	100.0	100.0	100.0	100.0

Source: Household Survey

The household survey suggests that the local people are little integrated into the market system. Market purchases of food items are limited to few grains like teff, maize, wheat and sorghum. An insignificant number of respondents reported purchases of pulses and oilseeds during the reference period. When it comes to the sales of crops, even a less or number of households reported the same as compared to purchases. It is only for teff and

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sorghum that some 10% of the households reported engagement in crop sales during the reference period.

13.2 Handicraft

Handicraft is a potential source of income that is worth investigation. Contrary to expectations, very few households were engaged in handicraft during the study period. For the three ADPs, there were a total of 28 households (5.6%) engaged in handicraft. Of the 28 households, 16 are from Mehal-Meda where activities like pottery and weaving are relatively important. According to the survey, handicraft is an activity that is undertaken by the household head (both male and female household heads). It is only in Antsokia, where spouses are engaged in handicraft to an appreciable degree. Households in different ADPs are engaged in more or less similar types of handicraft. Pottery, followed by weaving, has been found to the dominant type of handicraft (see Table 51). The major constraints to the expansion of handicraft have included lack of market, lack of credit, and shortage of raw materials. In Kemissis the major constraints are shortage of raw materials and lack of market.

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Table: 51 Handicraft as a Business

Variables	Mehal-Meda	Kemissie	Antsokia	Total
Percent of hhs engaged in handicraft	11.8 (N=16)	4.4 (N=8)	2.2 (N=4)	5.6 (N=28)
Dominant type of handicraft	Weaving bana (30%)	Pottery	Weaving bana	Pottery
Major constraint to handicraft business	Lack of market		Lack of credit	Lack of market

Note: This table should be interpreted with utmost caution, because the number of households engaged in handicraft is very small, i.e. 16 in Mehal-Meda; 8 in Kemissie; and only 4 in Antsokia

Source: Household Survey.

Regarding problems associated with small-scale business (like handcraft), majority of the respondents (66%) were unable to clearly pinpoint what factors constrain their operations. Nevertheless, a considerable proportion (27%) identified credit shortage as a constraint.

13.3 Household Expenditure

Mean household expenditure amounted to Birr 1535 per housed during the 12 months preceding the survey period (see Table 52). Mean expenditure ranged form Birr 1,143 in Antsokia to Birr 1987 in Kemissie. Expenditure varied widely (S.D = 1318) for the three ADPs.

Food has been found to be the most important expenditure item in the study ADPs. Alike in other parts of Ethiopia cereals, pulses and other food items accounted for the bulk of household expenditure as indicated in (Table 53). Next to food, clothing and medical care are found to be important in household budget. Here, it is interesting to note the finding that, in Antsokia, expenditure on meat has become important and that in Mehal-Meda, expenditure on medical care has assumed increased importance, perhaps, because of the availability of medical service provided by the hospital built by WVE in the area.

Changes in expenditure during the reference period has varied from ADP to ADP and from item to item. In Mehal-Meda, the bulk of the respondents reported decrease in expenditure during the 12 months preceding the survey. This may suggest that most sampled households are of the opinion that currently they have limited cash income to spend. On the contrary, in the other two ADPs, a considerable proportion of respondents reported increases in expenditure; perhaps, suggesting increases in purchase prices or increases in purchasing power. This way or that, it is apparent from the survey that households in Kemissie and Antsokia are more integrated into the market than those in Mehal-Meda. In particular, it is interesting that, in these ADPs, modern facilitates (such as transportation, communication, medical care) play important roles in the lives of the local people (Table 54).

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Does this may be include some investment ? Very High!

Table 52: **Total Expenditure (Birr/hh/year)**

Expenditure	Mehal-Meda	Kemissie	Antsokia	Total
Mean	1441.26	1986.58	1142.88	1535.38
Minimum	12.00	288.00	32.00	12.00
Maximum	9360.00	15064.00	5060.00	15064.00
Standard deviation	1317.23	1441.22	1016.81	1317.64

Source: Household Survey

Table 53: **Expenditure Items in Order of Importance (The top 5 items)**

Remark	Mehal-Meda		Kemissie		Antsokia		Total	
	Item	Mean (Br)	Item	Mean (Br)	Item	Mean (Br)	Item	Mean (Br)
1	Cereals	861	Cereals	1298	Cereals	730	Cereals	1003
2	Medical care	343	Pulses	309	Pulses	293	Pulses	300
3	Pulses	295	Other food	232	Clothing	211	Clothing	192
4	Clothing	178	Clothing	184	Other food	127	Medical Care	161
5	Education	175	Butter	181	Meat	111	Other food	139

Source: Household Survey

Table 54 : **Proportion of Sample Reporting Increase in Expenditure on Selected items During 12 Months Preceding the Survey (%)**

Items	Kemissie	Antsokia	Total
Cereals	30.4	19.2	18.9
Fruits	20.0	40.0	25.0
Vegetables	10.0	27.8	20.7
Butter	32.0	18.2	20.3
Other food items	25.0	40.0	28.8
Education	34.8	59.3	30.2
Transportation & Comm	62.2	55.0	57.6
Medical Care	65.0	39.1	44.4
Clothing's	53.0	46.6	35.1

Source: Household Survey

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14. SAVINGS AND CREDIT

In the past, credit used to be a main intervention strategy for agricultural development in the ADPs. For example, in 1991,the following agricultural inputs were distributed to the ADPs through what was then known as " revolving agricultural inputs loan scheme" (RAILS). 942 oxen, 51 fattening head of cattle 101 dairy cows, 102 dairy goats, 1098 poverty birds 10.9 MT of assorted seeds, 8913 pieces f farm tools, 1,350 liters of pesticides & 10 bee hives were distributed to 22,049 households in Adama, Antoskia I, & II (Kemissie) Damota I, & II, Omo sheleko & Satussa (Annual Report 1991).

The ADPs have put in place different types of savings and credit schemes in order to meet the credit needs of the clients and promote household saving practices.

These schemes were initiated with Revolving Loan Schemes (RLS) in early 1990. The scheme focused on the provision of critical inputs and assets like farm tols, seds oxen, and other livestock. Mainly because of low repayment rates among the borrowers and screening problems, the RLS was later replaced by Micro enterprise Development Schemes (MED) around 1997. MED, though business-oriented, faced more or less similar problems as RLS. Many clients defaulted. Besides, proclamations No.40 of 1996 discouraged NGOs from directly participating in the provision of credit. Rather, the proclamation provided the legal framework fro the establishment of micro finance institutions on commercial lines.

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Establishment of WISDOM, an independent and registered micro finance institutions WISDOM signed a partnership agreement with World Vision East Africa (1n 1998).

WVE facilitates WISDOM's operations by screemint and training clients, creating opportunities for credit, and providing information about the credit worthiness of prospective clients. On the other hand, WISDOM deals with the administrative and technical matters pertinent to saving and credit in the ADPS.

The current status of WISDOM's Operations in the Kemissie-antsokia area can be reviewed on the basis of interview with the head of WISDOM office in Kemissie town (Ato markos). WISDOM operates in the area side by side with Amhara Credit and savings Institute (ACSI) and other credit institutes. Currently WISDOM has 856 active clients in Kemissie and Antoskia-Gemza ADPs. In the former ADP, it covers the following P.A.s. Kemmissie 01 and 02 Cheffa Robit, Woledi, Majetie and Kemoy, all of which are town. In rural Kemissie ADP its operates in Shnekola, Bedeno Sertie, and Hula-Chefadire. In Antoskia ADP, it operates in two ADPs, Ankar-Kewekeb and Agla. Borrowers are organized into groups five to eight persons for business credit and twenty five to fity for agricultural credit. WISDOM release funds on condition that a P.A. has paid more than 90% of its loans from WVE. Individual borrowers are required to paid 100% of their loans from WVE.

Currently outstanding loans amount to Birr 578,062.5. The interest rate is 12.5% per year. So far, WISDOM has released credit amounting to Birr 1,175,750 to a total of 1,606 persons. Some clients have withdrawn from the program after paying their dues. The repayment rate is 100%. The official was unwilling to disclose the soruce of funding for WISDOM.

As most farmers in Antsokia have defaulted (with areas reaching Birr 1,000,000) WISDOM's operations are restricted to Gemza and Kemissie. However, most recently most clients have pledged to repay all the loans with a view to contributing to speedy construction of 7 million Birr worth road connecting Mekoy with the Addis-Dessie highway. Within just one month, they repaid Birr 100,000. They have agreed to fully repay the remaining outstanding loan. Once thy repay their outstanding loans, the clients would get fresh credit from WISDOM. The local government has fully collaborated in encouraging farmers to repay their loans.

According to the household survey, small proportion of the respondents (24%) ever borrowed money from institutional sources. This suggests that the majority of the

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farmers rely on-informal sources (like friends and relatives) for their credit requirements. This is in agreement with the usual practice in rural Ethiopia.

Of institutional sources, agricultural bureaus and WVE are considered by the respondents as the important ones (Table 56). But the relative importance of sources has varied form ADP to ADP. For Mehal-Meda, the Agricultural Bureau is the most important one, while in Kemissie WISDOM is the relatively important source. In Antsokia, WVE has been reported as the most important source of credit, though currently, it is not providing credit to farmers . Amhara Savings and Credit Institute has assumed the second place in Mehal-Meda and third place in Kemissie and Antsokia (see Table 53).

Agricultural credit has been identified by 81% of sampled households as the single major type of credit in the study ADPs. This observation is in agreement with the finding of the study that relatively high proportion of farmers got their credit from the agricultural bureau. Petty trade and handicrafts have been benefited very little from institutional credit. In Kemissie, a quarter of the respondents borrowed for purposes not identified in the study. No borrowings are reported for handicraft in Kemissie and Antsokia (see Table 57).

The benefit farmers' drive from credit has been assessed as "moderate" by the majority of the households (52%), "very much" by a minority (23%), and 'nothing' 15% of the respondents. In general, farmers have benefited from institutional credit schemes set up in the ADPs.

Of the few who feel that institutional credit has positive effects on their lives, the majority (56%) are of the opinion that credit contributed to increases in agricultural productivity. In addition, quite significant proportions mentioned asset building in Antsokia (38%) and Kemissie (24%). Credit has contributed very little to the expansion of petty trade and handicraft. Again, a considerable proportion (24%) in Kemissie got unidentified benefits from credit.

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Actually saving should be seen interms of accumulated wealth (capital) over time. It should not be limited to a one year (12 months) situation only.!

Regarding savings, the survey has suggested that not more than 14% of sampled households ever saved during the 12 months, preceding the survey period. However, in Kemissie, where WISDOM is relatively active, 18% of the households reported saving during the reference period.

Table 55: **Savings and Credit its Impact**

Variables	Mehal-Meda	Kemissie	Antsokia	Total
Percent of hhs borrowing from institutional lenders	32.4	23.5	16.9	23.5
The most important source of institutional credit	Agricultural bureau (79%)	WISDOM (30%)	WVE (67%)	Agric. bureaus (44.3 %)
Percent to hhs for agricultural purposes (Agricultural)	88.6	67.4	87.1	80.5
Opinion on benefit derived form institutional credit	Moderate (82%)	Very much (42%)	Moderate (42%)	Moderate (51.7)
Percent of hh saying credit positively impacted agricultural productivity	83.9	43.2	45.0	55.6
Percent of hhs ever saving money	11.0	18	10.9	13.5
Percent of hhs saying borrowing from money lenders increased	8.1	17.8	4.6	10.4

Figures in bracket stand for percent of hhs responding
Source: Household Survey.

Borrowing from the moneylender is not important for the majority of the households (52%). Of those who borrow from moneylenders, about 10% reported that borrowing from this source increased in the 1990s.

Table 56: **Institutional Sources of Credit (%)**

Sources	Mehal-Meda	Kemissie	Antsokia	Total
WVE	2.4	18.6	66.7	25.2
WISDOM	7.1	30.2	3.3	14.8
ASCI	9.5	18.6	6.7	12.2
Agri. Bureau	78.6	25.6	23.3	44.3
Others	2.4	7.0	0	3.5
Total	100.0	100.0	100.0	100.0

ASCI = Amhara Savings and Credit Institution
Source: Household Survey

This information is not clear. Because, for example, in Kemissie WISDOM only provides 30% of the credit source. There should be (?) another higher importance source (70%). Make this arrangement more clear.

↳ Is this informal source?

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Table 57: **Purposes of Credit (%)**

Agriculture	Mehal-Meda	Kemissie	Antsokia	Total
Agriculture	88.6	67.4	87.1	80.5
Petty trade	2.3	4.7	3.2	3.4
Handicraft	2.3	0	0	0.8
Others	2.3	25.6	6.5	11.9
Not Stated	4.5	2.3	3.2	3.4
Total	100.0	100.0	100.0	100.0

Source: Household Survey

Table 58: **Impact of Institutional Credit (%)**

Impact	*Mehal-Meda*	*Kemissie*	*Antsokia*	*Total*
Agricultural Productivity in creased	83.9	43.2	45.0	55.6
Asset built	3.2	24.3	37.5	23.1
Handicraft expanded	3.2	0	0	0.9
Petty trade expanded	0	8.1	0	2.8
Other benefits	9.3	24.3	17.5	17.6
Total	100.0	100.0	100.0	100.0

Source: Household Survey

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15. HOUSEHOLD -LEVEL FOOD AVAILABILITY AS REPORTED BY THE HOUSEHOLD SURVEY

15.1 Food Availability as Reported by the Household Survey

Household food availability can be partly investigated by looking at the number of meals eaten per day. According to the household survey, dinner has been found to be the relatively important meal (see Table 59). In Mehal-Meda, where breakfast is relatively unimportant, lunch and dinner are found to be equally important. But in Antsokia and Kemissie (where fields are far way from the homestead) farmers attach more importance to breakfast than to other meals. One relevant and interesting finding is that, according to the results of the survey, men and women get almost equal access to all types of meals.

Table 59: **Meal Served Regularly to adult Males and Females (5%)**

Meals	Mehal_Meda		Kemissie		Antsokia		Total	
	M	F	M	F	M	F	M	F
Breakfast	10.2	9.9	31.3	30.8	33.9	33.7	27.2	27.0
Lunch	44.4	44.5	29.9	29.8	26.3	25.1	32.1	31.5
Dinner	44.7	44.9	35.0	35.6	39.6	39.0	39.0	39.0
Snack	0.7	0.7	3.8	3.8	0.2	2.2	1.7	2.5
All Meals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: The number of responses to the question on meals do not necessarily add to the total sample size in each ADP. This is because of the fact that the respondent will be served (regularly) with more than one meals. Therefore, percentages given here are only indicative, and are not there to be mentioned in the text.

Source: Household Survey

An overwhelming majority of sampled households (78%) said that they did not have enough food at the time of the study. In particular, in Mehal-Meda as much as 94% of the households reported food shortages for most of the time. A low proportion (70%) has been observed in Antsokia. In this ADP, 7% reported having enough food

throughout the year, while 21% reported enough food in some months. In Kemissie, 23% reported having enough food in some months (Table).

Moreover, a large majority of sampled households (67%) confirmed that the number of meals eaten today is lower than what it used to be ten years ago. In particular in Mehal- Meda 85% of the household have less meals to day than they had ten years ago as indicated in (Table 60).

Table 60: **Household Level Food Availability (Opinion on Whether a Household has Enough Food)**

Availability	Mehal-Meda	Kemissie	Antsokia	All
Percent having enough throughout the year	0.0	1.6	7.1	3.2
Percent having enough food in some months	3.7	23.0	21.3	17.1
Percent not having enough food	94.1	74.9	69.9	78.3
Not stated (%)	2.2	0.5	1.6	1.4
All samples	100.0	100.0	100	100.0

Source: Household Survey

Table 61: **Changes in the Number of Meals Eaten Per Day, 1990-2000**

Changes	**Mehal-Meda**	**Kemissie**	**Antsokia**	**Total**
Increased	10.3	13.7	3.8	9.2
Decreased	85.3	49.2	71.6	67.1
No change	4.4	36.1	19.1	21.3
Not applicable	0.0	1.1	5.5	2.4
Sample total	100.0	100.0	100.0	100.0

Source: Household survey

Although these information help as indication, they do not really provide a true picture. Increase or decrease does not say much. If survey was undertaken for this study, why you couldn't analyze food availability in quantative terms? i.e. cereal balance, surplus or deficits, etc.

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As a result, a large proportion of the households 70% currently depend on relief food in particular, in Mehal-meda, as much as 91% of sampled household, get food aid (Table 62 & Figure 14). In Kemissie and Antsokia 60% and 63% of the households, respectively, get relief food at the current time. The study ADPs are not spared from the almost nation-wide drought causing havoc to the country. Today, more than 8 million people in the country are in need of relief food.

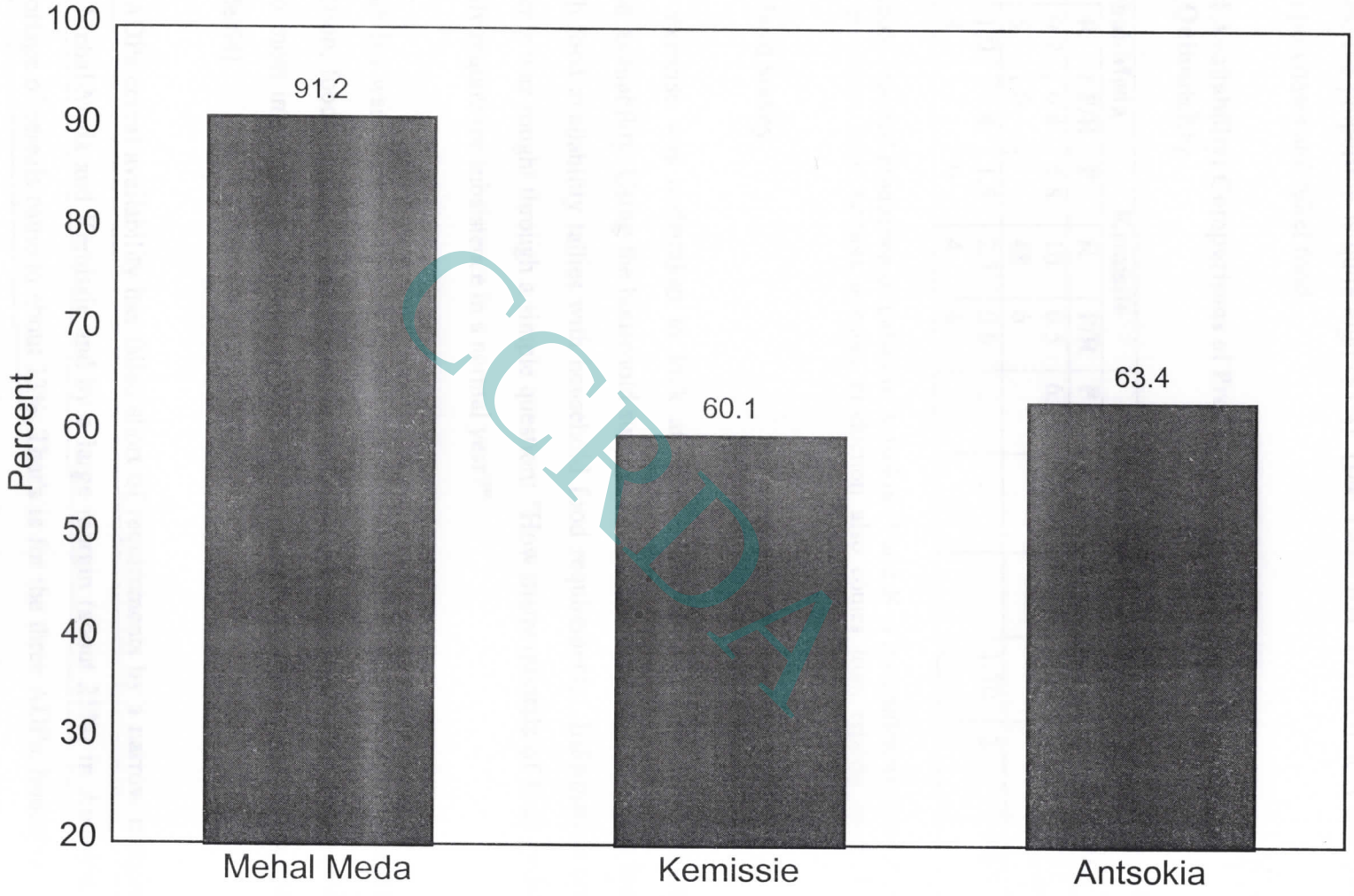
Table 62: **Proportion of Households Getting Relief Food**

Responses	Mehal-Meda	Kemissie	Antsokia	Total
Percent getting relief food	91.2	60.1	63.4	69.7
Percent not getting relief food	3.7	27.9	33.3	23.3
Not stated (5%	5.1	12.0	3.3	7.0
Total sample	100.0	100.0	100.0	100.0

Although very difficult to control so a huge and deep-rooted poverty problem, this situation doesn't show that the WFE program was shifted from relief to Area Development.

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Figure 14 Percent of Households Getting Relief Food



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In the study areas, food production runs short of total food requirements of the households. The proportion of cereals production in the total requirements ranged between 40% for Mehal-Meda and 67% for Antsokia. For the study ADPs, food self-sufficiency ratio averaged 57%. For pulses, the proportion is quite high (85%) (see Table 63). The deficit is covered mainly through purchases and relief food.

Table 63: **Food Availability: Comparisons of Production (P) and Requirements (R) (Quintals/hh)**

Crops	Mehal-Meda			Kemissie			Antsokia			Total		
	P	R	P/R	P	R	P/R	P	R	P/R	P	R	P/R
Cereals	3.66	9.25	0.40	5.8	10.48	0.56	6.95	10.44	0.67	5.64	10.13	0.57
Pulses	1.72	1.98	0.87	1.50	2.34	0.64	..	..	..	1.70	2	0.85

Very few household reported production of pulses in Antsokia (Valid N is insignificant). Note that "requirements" are taken from farmers opinion; Production also comes from reports made by households.

Source: Household Survey

An additional exercise was undertaken to look at food availability and requirement in addition to food availability. Using the household survey, an attempt was made to assess the extent to which food availability tallies with household food requirements. Information on food requirements was sought through a simple question: "How many quintals of food grain does your family require for subsistence in a normal year?"

Net food availability was estimated by deducting crop sales and gift (given out) form the sum of crop production, food purchases, and gift received. Estimates were made for cereals and pulses, the two most important food grains in the ADPs. The results of this exercise are indicated (Table 64).

For the study ADPs cereal availability has fallen short of requirements by a narrow margin (about 5%) in Mehal-Meda and Kemissie and by a large margin (about 25%) in Antsokia. The overall shortage of cereals came to about 13%. That's is for the three ADPs, households could cover 87% of their food requirements from production, purchases, and transfers (including relief food).

? How can one say food availability falls short by a narrow margin (5%, 13%) when relief food is provided? This figure should be that before the relief supply. Otherwise it misleads.

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Regarding pulses, the survey suggests that, for the study ADPs, households are unable to cover 37% of the requirements (through production, purchases, and transfer). During time of food shortages, it is the essential food item that receives the most attention (that is, grain rather than pulses). But, in Mehal-Meda, where horse beans are a staple food, households could cover 85% of pulses requirements through direct and indirect entitlement.

Table 64: **Food Requirements and Availability (Qt/hh)**

Requirement & availability	**Mehal-Meda**	**Kemissie**	**Antsokia**	**Total**
Cereals required	9.25	10.48	10.44	10.13
Pulses required	1.98	2.34	1.66	2.00
Cereals available	8.82	9.93	7.76	8.84
Pulses available	1.68	1.25	0.71	1.26
Cereals available as % of requirement	95.35	94.75	74.33	87.27
Pulses available as % of requirements	84.80	53.42	42.77	63.00

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15.2 Food Availability, Consumption, And Coping Mechanisms as Reported by the ADPs

The results of Health and Nutritional surveys of the ADPs (May, 2000) are summarized in the following matrix. The surveys invariably suggest almost total failure of *belg* cropping for the three ADPs. Here it should be noted that under normal conditions *belg* harvest accounts for substantial proportion of output in these ADPs (60% in Mehal Meda and 25% in Kemissie). Moreover, *meher* harvest was reported to be below normal yields.

The primary sources of food are reported to be market purchases and relief food in all of the study ADPs. This suggests that production from own farm has lost the important role it used to play in the past. That is direct entitlement to food is being replaced by indirect entitlement i.e. Purchased food or by transfers (relief food) with out reliable and adequate sources of cash income.

Secondary sources of food are own production in Antsokia (followed by loans from friends and relatives); grain reserve in Kemissie, and milk and its by-products in Mehal-Meda.

Here, it is interesting to note in the matrix, the relative importance of the following in the ADPs: crop production and of normal credit in Antsokia; the habit and capability of keeping grain stock in Kemissie, and the importance of the livestock sector in Mehal-Meda.

The primary sources of cash income for the purchase of food are sales of livestock in the three ADPs. Other sources included wage labour and sales of firewood. Obviously, this suggests that in time of distress household tend to deplete their most valuable asset (livestock) and at the same time, increasingly resort to environmentally unsound practices (cutting trees for use as fuel wood and charcoal). This may lead to a vicious circle of poverty involving increased food insecurity leading to asset depletion (and environmental degradation), which, in turn, leads to food insecurity.

Other coping mechanisms are also reported. These included decrease in the volume and frequency of meals in Kemissie and Mehal-Meda, in addition to wage work in Kemissie and Antsokia.

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The decline in food availability is also suggested by trends in the prices of livestock and food crops. As indicated in Table 65, the food price indices in Antsokia almost systematically increased during the period 1994-2000, while the livestock price indices almost systematically declined over the same period. The food price index rose from 100 points in 1994 to 141 in May 2000, while the livestock price index dropped from 100 points in 1994 to 27 in May 2000. Similarly, a decline in the wage-rate (Birr 4/day) was reported in Mehal-Meda. These price trends do suggest almost systematic decline in food availability during the period 1994-2000. Thus, the Nutrition Survey of Antsokia (May, 2000) underlined that:

> The continued decline of livestock prices and sustained rise of crop prices indicated the deterioration of household food stock in recent crop seasons, which is attributed, mainly, to repeated climatic disturbances.

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Matrix 2. **Household Food Security Situation as Reported by the ADPs (May, 2000)**

Variables	Antsokia	Kemissie	Mehal-Meda
Food production	Belg has generally failed in The Woreda. There is severe crop Production failure. The overall Production of food crops totally Failed due to drought.	During the last *meher*, a significant Reduction in yield of crops had been Reported. A series of flood & beettle Attack were the major factors. Currently, there is a total failure of *belg* crop except in some pockets of irrigated areas (*belg* used to account for 25% of output for 54% of the total kebeles. There is an impending danger.	During the surveillance there was no *belg* harvest in this year for there is almost no rain. Last year both *belg* and *meher* harvest failed. At woreda level, *belg* accounts for 60% of the total production (normal circumstances).
Source of Food consumption & coping mechanisms	Market purchase and relief food are the primary sources of food, with food crop and loans from friends & relatives being second and third. Major sources of cash income for the purchase of food are: live animal (54%), wage labour (27%), and sales of fuel (18%). The continued decline of livestock prices and sustained rise of crop prices indicate the deterioration of hh food stock in recent crop seasons which is attributed, mainly, to repeated climatic disturbances.	Meal frequency reduced from 3 to 2 (84.5% of respondents) and to 1 in a day (15.4% of respondents). The main source of food are: market purchase (55% of respondents); relief food (28%); grain reserve (17%). The main sources of money for the purchase of food are sales of livestock (53% of respondents); sales of fuel wood & charcoal (26%); wage labour (21%). Coping mechanisms included sales of productive assets(33%), decrease in meal size & its frequency (25%); and others.	At present, the major sources of food, in order of importance, are relief food, purchased food, and milk and its by-products. Presently, the major source of cash income for the purchase food is the sale of livestock and firewood. Low quality food is being eaten, meal frequency and quantity are reduced. There is acute food shortage caused by significant production shortfalls. Wage rate for unskilled labour equals Birr 4/day.

Source: Health and Nutrition Surveys of the ADPs, May 2000

Table 65: **Antsokia Price Indices May 1994=100**

Year	Crops	Livestock
May 1994	100	100
November 1994	141	99
May 1995	132	96
November 1995	138	101
May 1996	98	108
November 1996	115	102
May 1998	126	78
November 1998	142	78
November 99	92	75
May 2000	141	72

Source: Antsokia - Gemza ADP: Nutrition Survey Report of May 2000.

15.3 The Nutritional Status of Children

An attempt was made to assess the nutritional status of children, on the basis of the results of the Nutritional Survey Reports of the ADPs, undertaken in May, 2000. The surveys suggest that the nutritional status of children was invariably better than the national average in Kemissie and invariably worse in Mehal-Meda. In Antsokia, it is better than the national average in terms of wasting and stunting and almost the same as the national average in terms of underweight. The following table provides details of the nutritional status of children in the ADP. Additional information on the nutritional status of children (for the period 1993-1997) is given in the Annex 9 .

Table 66: **Nutritional Status of Children in the ADPs as Compared to National Average**

Indicators	Antsokia	Kemissie	Mehal-Meda	National average
Wasting (weight for height) (%)	6.3	8.2	11.5	9.0
Underweight (weight for age) (%)	42.4	39.4	65.0	42.0
Stunting (height for age) (%)	50.2	34.9	64.8	52.0

Source: 1. Food Security Monitoring Reports (Nutritional Survey Reports) of the ADPs, undertaken in May 2000.
2. CSA (1999). Report on the 1998 Health and Nutrition Survey (as defined on pages 226-228)

Note: CSA's survey covers children of age 3-59 months while the ADPs include slightly different age groups: 5-59 months in Antsokia, 6-59 months in Mehal-meda and Kimisie.

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PART IV. AGROFORESTRY, GARDEN CROPS, AND ACCESS TO FOOD

16. NGOS INDUCED AGRICULTURAL INTENSIFICATION

Agroforestry development efforts constitute a lasting solution to the problems of food insecurity and environmental degradation in parts of rural Ethiopia. However, possibilities for the promotion of agroforestry and garden crops schemes depend partly on the potentials of a given locality, such as agroecolgical factors. Of the three study ADPs, Antsokia and Kemissie can be considered as high potentials, while Mekal-Meda can be designated as an area of limited potentials regarding the expansion of agroforestry schemes. On the other hand, the latter has considerable potentials for the development of sheep-based agri-business. In what follows, I will highlight aspects of agroforestry and garden crops promoted by the Antsokia and Kemissie ADPs. The conceptual framework for WVE's holistic intervention is indicated in Figures 15 & 16.

Agricultural Intensification

So far, two types of agricultural intensification systems are recognized in the literature on rural development in developing countries. These are: (1) science-based intensification of the type widely described in the literature on the Green Revolution (which draws its theoretical underpining from Schultz, 1964) and (2) spontaneous intensification in preindustrial societies as described by Boserup (1965).

The Green Revolution type of intensification, thought highly productive, has its own limitations. Some of its shortcomings include: unequal distribution of benefits, environmental problems (such as monoculture and uncontrolled use of chemicals, and possible marginalization of women).

Agricultural intensification in highly industrialized countries, though highly productive, has serious limitations, which reduces the relevance of this system to the current conditions of African countries. The technology used in this type of farming is basically labour saving and capital using. As a result, its relevance to labour abundant and capital scarce economics may

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be questionable. This system of cultivation has often been criticized because of the health hazards created by uncontrolled use of chemicals and artificial feeds (note the mad cow disease), environmental problems, destabilization of rural life, and rural-urban migration resulting from extensive use of labour-saving technologies.

In Ethiopian, the idea of Green revolution first emerged in late 1960s, when the package projects were launched with support from Western donors like SIDA[19]. Since then, agricultural technology has been characterized by the following features: almost uniform rural development policies, heavy bias in favour of chemical fertilizers, emphasis on field crops and almost total neglect of garden crops (such as enset), limited integration between crop production and environmental concerns, undue emphasis on food self-sufficiency (which was not materialized) and limited emphasis on cash crops and limited attempt to reduce dependence on rain for soil moisture.

NGO-induced intensification systems provides opportunities to overcome some of the problems of Ethiopian agriculture. It supplements the Governments efforts in improving food security positions of poor households.

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[19]For Details see Dejene Aredo (1997), "The Regional Dimension of Agricultural Planning and Policies in Ethiopia", Ethiopian Journal of Development Research.

NGO-induced intensification[20] is a newly emerging farming system that attempts to contribute to household food security through sustainable mobilization of resources already available in a given locality. However, at this moment it is difficult to take this effort as a fully-fledged agricultural system. Because of limited evidence, it is difficult.

Agroforestry and Garden Crops

The following is only an attempt at shedding some light on the logic of NGO induced intensification using information generating form two ADPs of WVE.

The essential features of WVE's agro-forestry and garden crops are summarized and compared with the government-induced intensification efforts in Matrix 4. The conceptual framework of these schemes is provided in Figures 16 and 17. Here it is interesting to carefully look at Figure 17 for a better appreciation of WVE's holistic intervention.

The ADPs follow certain principles in identifying and implementing irrigation projects. First, they determine whether there is a felt need for irrigation water in a given locality. This exercise is undertaken through active participation of the local people. Second, the ADPs assess the environmental and financial sustainability of the scheme. In addition, they take into account the ability of the community to manage the scheme and the extent to which the scheme can be adopted by potential beneficiaries. The scheme should be potentially replicable. Third, the irrigation scheme should be compatible with the priorities, strategies and capacities of the

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[20] For the purpose of this study, we define "agricultural intensification" as a resource conserving system of farming in which irrigation water and household labour are applied to small plots of land to produce high value cash and subsistence crops in a sustainable way. NGO induced intensification can be considered as equivalent to sustainable and equitable intensification. The following discussion is based mainly on personal observation and rapid appraisal undertaken by the author in Antsokia and Kemissie ADPs. The managers and facilitators of the ADPs have made valuable briefings.

What is a guarantee that it is sustainable because it is NGO-induced ?

egional government. Fourth, the strategies, capacity and objectives of the NGO is aken into account. Fifth, the interest of the donors and sponsors are considered. The decision to undertake an irrigation project considers other vital factors like availability of potential sources of water, the quality and extent of irritable land, cropping patterns, indigenous irrigation works, and local experience in water works.

WVE has adopted a holistic strategy of promoting household food and livelihood security in the ADPs it operates. To achieve this objective, it has put in place four key interventions. These are (1) increased agricultural production, (2), improved access to food, (3) enhanced educational status, and (4) enhanced health status (see figure below). The first two interventions provide households with direct and indirect entitlement (to food), while the third and the fourth interventions contribute to livelihood security through improve quality of life (or human capital formation). Each of these interventions, in turn, depend on other interventions as indicated in the Figure below. For example, access to food is promoted through three major interventions, i.e., credit (through WISDOM), infrastructure development, and promotion of micro businesses. All interventions have two elements in common. These are training and collaboration with the regional government. The ADPs operate in the context of a given physical and policy environment which is largely beyond their control. .

The agroforestry and garden crops schemes of Antsokia and Kemissie ADPs are based on the principle of making the best use of available resources without depleting the resource basis of inputs utilized to meet household food security requirements. All the major resources, land, water, and labour originate from the locality. The system addresses problems of population pressure and land scarcity, because very small plots are used to generate sufficient cash income for household consumption. For Example in the Terefe PA of Antsokia, a young farmer emphatically told us that he could reap as much as Birr 1600 from a plot measuring only 0.7 ha. or 720m^2 by planting tomatoes in a given season. As he used multiple cropping systems, he harvests tomatoes and alternative crops (such as maize) three times in year. If the farmer plants tomatoes alone throughout the year, he could earn Birr 4800 per plot of land. However, this farmer relies not only on tomatoes: he planted other crops alternatively

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with tomatoes. In another PA, Afso-Zuria (Antsokia), farmers like Gashe-Abe (See Box) earn a lot of cash income from the sales of coffee, papaya, and other cash crops. From an early maturity coffee alone, a farmer could earn as much as Birr 1000 in a good year. By selling a medium size eucalyptus tree a farmer can earn about 10 Birr. But most recently, some farmers in Antsokia have shown a tendency to switch from eucalyptus trees to **gravillia,** a tree that could fetch as much as 100 Birr per singletree.

Successful farmers reinvest their cash incomes in different ways. Construction of corrugated iron sheet houses is one of the major investment channels in Antsokia. In a small market place in rural Kemissie, we saw two newly-built two story wooden houses. Livestock constitute other forms of investments.

Irrigation water is a key factor in promoting agro-forestry and garden crops in Antsokia and Kemissie. In swampy and waterlogged areas, the ADPs, have attempted to transform water from a liability into an asset. The water is harnessed from different sources including rivers, springs, swampy places, and ground water. No opportunity is lost to use available water potentials without depleting the environment. The water is taken to the fields in different ways including half-section, hand dug water wells, well-built canals, plastic hoses, etc., depending on sources of water, number of benefiting farmers, cost considerations, etc. (see figure 15).

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Figure 15. Irrigation water, Agroforestry, and Household Food Security in Antisokia and Kemissie ADP

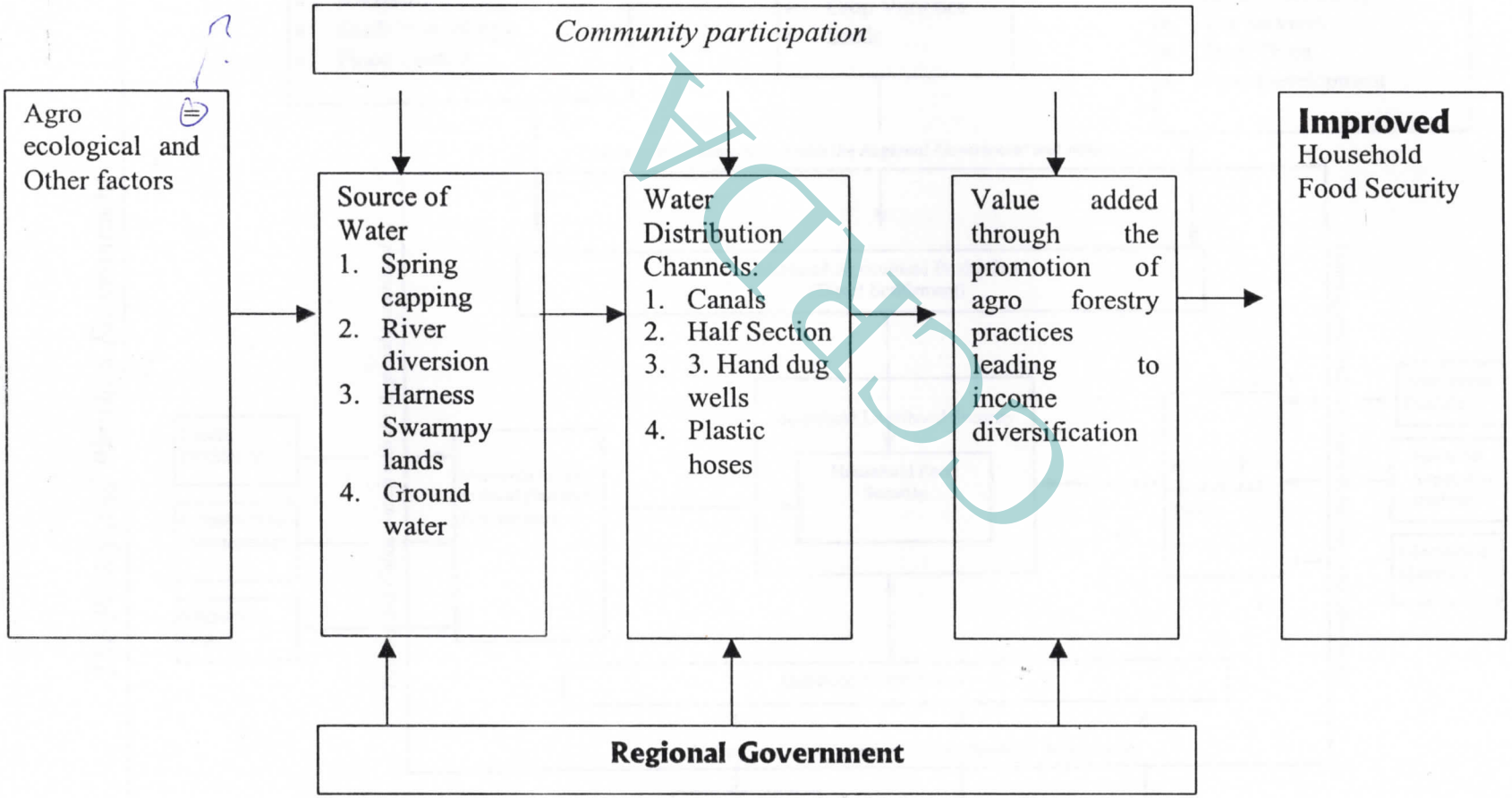
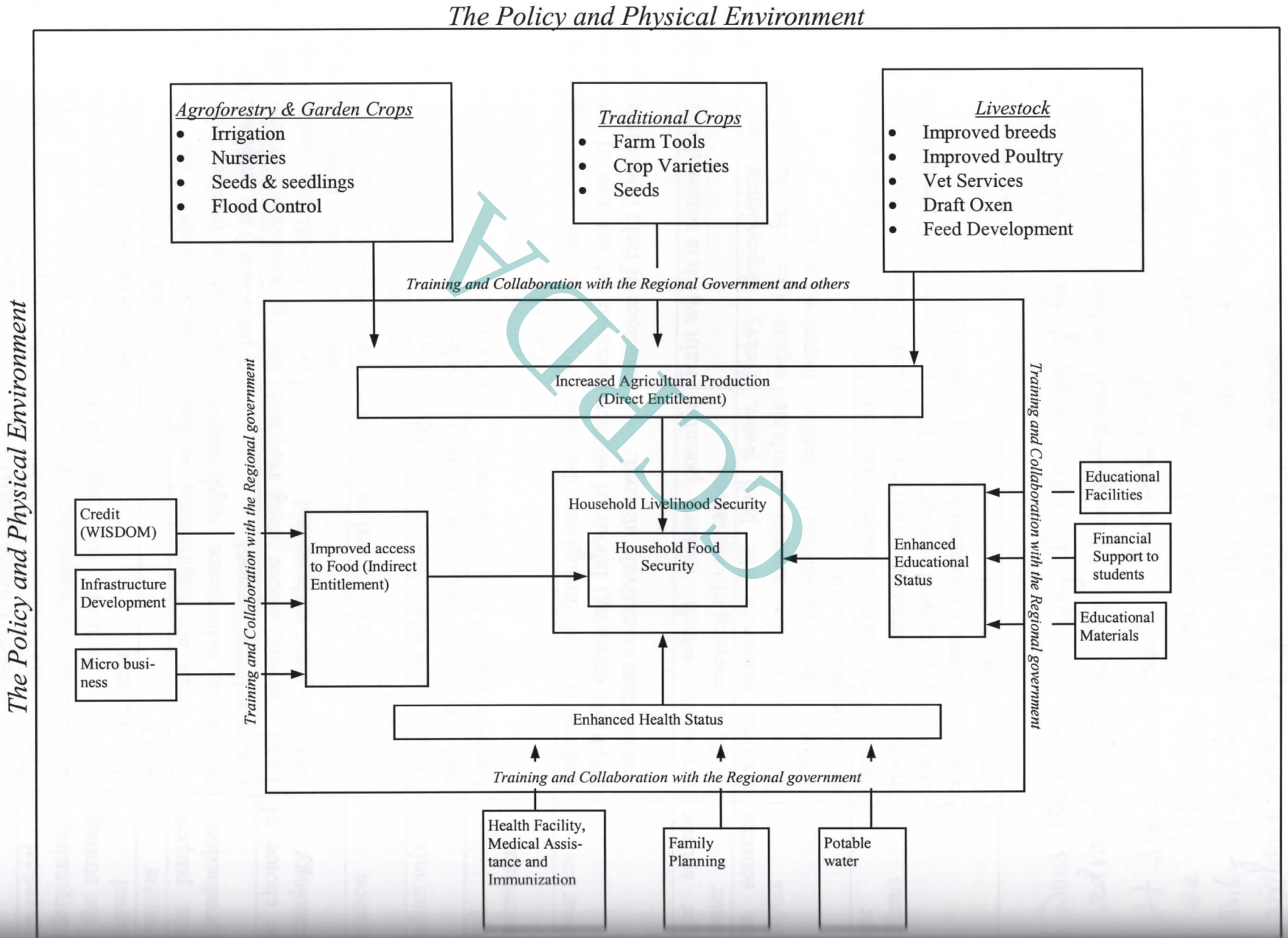


Figure 16: Promotion of Household Food Security through Holistic Intervention of the ADPs and the Key Role of the Training and Collaboration with Regional Government



What is the intension here? To compare the two in the context of Wolo area?

Matrix 3 Comparing NGO induced Intensification with Conventional Intensification System

Variables	*WVE – induced intensification (Agro-forestry Garden Crops)*	*Conventional intensification of agriculture in Ethiopia*
Theoretical underpinning of the strategy adopted	The conservation Model of agricultural development; Boserup (1965); theories of sustainable development	The transformation approach (the quick fix approach) or the high pay off input model as originally proposed by Theodore Schultz: (1964).
Promoter	NGO	Government
Main purpose of production	Cash crops are emphasized without neglecting subsistence requirements (income diversification)	Produce mainly for subsistence. Major crops (maize, teff, and wheat, in particular) are emphasized.
The choice of technology	Land - saving, labour using resource conserving and scale neutral .	Biological-chemical technology or the Green Revolution technology, for which rain water is not optimum.
Location	Farms are often located within the homestead.	Field crops are often located far away from the homestead.
Product mix	Fruits, vegetables tree crops, other cash crops, (and maize intercrolled)	Emphasize major crops like teff, wheat, maize
Land requirement	Land-saving and high value crops	As cereals are the dominants crops, relatively more land required per unit of output.
Labour use	Labour is used throughout the year (Multiple cropping) labour of women and children extensively utilized.	Male labour may predominate because of the use of the plow and distance of field from the homestead.
Major source of water	Irrigation, which makes possible multiple cropping of vegetables.	Rain which is seasonal and unreliable.
Main sources of inputs	Harness resources like land water, labour which are already available within the agricultural sector. Environmentally sound	Heavy dependence on purchased inputs like chemical fertilizes and improved seeds.
Major problems	Plant pests and diseases; limited markets; expansions limited by availability of natural resources. The risk components for vegetables is high (see Annex on onion).	Moisture stress arising from drought and irratic rainfall; relatively high input prices. Potential environmental problems.

1) Does this table imply Garden cropping has better comparative advantage than the "conventional intensification"?
2) It seems here that "Conventional intensification" refers to the Extension package of the MoA. Intensification can not be only this aspect. There are farming systems intensified without the Ext. package (e.g. where there is irrigation water).
3) The "Conventional" intensification is not necessarily confronted with unreliable rain. Major agr. areas have favorable weather.

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Box 3: Abebe Aragaw (Gashe-Abe): From food handouts to a Bank Account

Abebe Aragaw (age 45) was among the victims of the devastating drought of 1984 /85, during which he lost most of his relatives. To make things worse, his wife abandoned himat the time when he was in trouble. For a time he lived in a relief camp in Antsokia along with other victims of the drought.

But, today, his life has been totally transformed, thanks to the ADPs efforts in improving the quality of life in the area. He has benefited from most of the support given by the ADP. In particular, he has been trained as plumber responsible for the water works set up in his P.A. i.e. Afso-Zuria Kebele.

The versatile Abebe ("Gashe-Abe" as many would call him) is everything for his fellow villagers: he is a trained plumber who fits pipelines and repairs damaged parts; a contact person and model farmer who extends new technologies to fellow villagers; and kind person who allows neighbors to use his own plots for demonstration purposes. His efforts have paid off: we saw most of his neighbors preparing new fields for vegetables and fruit trees. Moreover, these farms have converted previously barren land and some of the crop fields into flourishing agroforestry and garden crops.

Gashe-Abe is among responsible farmers who had never defaulted on the credit previously provided by the ADP. With the loan he got from the ADP, he bought productive inputs and assets like seeds and beehives. Today he has three oxen, two cows, two donkeys, six sheep and goats and improved breeds of poultry.

Gashe-Abe is a good representative of those successful farmers practicing agro forestry and garden crops. He has considerably diversified his sources of income. He grows fruit trees and vegetables on a substantial portion of his one-hectare (four *timad*) holding. He reaps as mush as 1000 Birr from coffee fields. He gets considerable cash income from his papaya trees and other high value crops.

Gashe-Abe has a personal bank account at Kombolcha, some 60 Kms aways from Antsokia. What is he going to do with his money saved over the last four years? Is he going to build a house with corrugated iron sheets in his village, like other better off peasants? Is he going to invest in livestock or in more orchards? None of these alternatives has appealed to Gashe-Abe. He has the intention of settling in a near by town and operate as a trader, in addition to farming. Without reading economics textbooks (Gashe-Abe reads and writes only), Abe knows that the economic surplus flows from sectors of low returns to those of high returns.

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In mobilizing water resources, the ADPs have systematically followed certain principles. First, they make extensive use of indigenous knowledge system and irrigation experiences of the local people. Farmers participate at different stages of the development an irrigation project, ranging from feasibility studies to the administration of irrigation crater. They initiate a project by expressing their needs for a particular irrigation scheme. They supply vital information regarding potential sources of water, alternative locations of water, the extent of water availability, cropping patterns, and so on. Second, the ADPs make sure that irrigation schemes do not result in the depletion of natural resources and disequilibrium of the ecosystem. They attempt to achieve this objective, among other things, by gathering sufficient information about the resource potentials of an area and about resource utilization patterns adopted by local people, avoiding the construction of large-scale irrigation schemes, making use of excess or previously wasted water and by adjusting to (rather than radically changing) the ecosystem. Third, the ADPs have adopted diverse and location-specific approaches to resources mobilization and their utilization. That is why they use different sources of water and multiple channels for the distribution of

water. For example, distribution channels in Kemissie ADP range from hand dug wells for households to 2000 meter-long canals irrigating 60 hectares of land, which belongs to 240 households. Fourth, the ADPs consider capacity building efforts, training in particular, as the key factor for effective utilization of existing capacities of irrigation and agroforestry schemes. Farmers have received training on the technical, agronomic, and social aspects of irrigation system. For example, Afso-Zuria P.A. (Antsokia) has its own plumber cum-farmer who also acts as a contact person (see Box, Gashe-Abe). Farmers are encouraged to get organized into interest groups and set up mini nurseries and fairly distribute the water among them selves. In Afso-Zuria P.A. (Antsokia) individual members of an interest group exchanged seedlings they raised on private plots. Fifth, the ADPs plan and operate in close collaboration with different branches of the regional government. This effort ranges from approval of irrigation projects to fair settling of disputes arising from the use of irrigated land. Sixth, flexibility and innovations constitute striking components of the irrigation and agro-forestry and garden schemes of the ADPs. Very recently, in Kemissie foot pumps have been introduced on experimental basis. Hand dug wells constitute a widely adopted innovation. In Kemissie alone, there are 201 hand dug water wells. Hand dug wells are provided to individuals as contrasted to other irrigation schemes, which are collectively utilized. Women and children are the primary beneficiaries of hand-dug wells. The idea of developing hand-dug wells originated from local farmers experience in providing their animals with water from indigenous hand dug holes.

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On irrigated fields, farmers grow vegetables, fruit trees, other cash crops, and maize. Here, it is interesting to note that maize is, perhaps, the only traditional cereal that has received increased attention from farmers because of the availability of water throughout the year. Farmers grow maize in four different ways, to the extent that water use is concerned. It is grown on irrigated field as a main crop intercrossed with vegetables and other crops; it is intercropped with coffee as a minor crop (in areas like Afso Zuria); it is grown on wet soil during dry season (on land where the flood water has receded); and it is grown as a rainfed crop during the main rainy season (**meher**).

Thanks to the package programme, the government and training efforts of the ADPs, early maturity varieties of maize have made significant inroads into Antsokia and Kemissie ADPs.

Water is also mobilized for domestic uses. Hand pumps are found in many places. Potable water is within the reach of many households as suggested by the households' survey.

The ADPs promote agro- forestry and garden crops in different ways. First, they provide farmers with irrigation water as described above. Second, they provide equipment (such as plastic hoses) which are required for irrigation purposes. Third, the ADPs give training to farmers and to relevant government employees (such as development agents) concerning irrigation agriculture and other areas. Fourth, they provide farmers with seeds and seedlings. The current policy of the ADPs emphasize private mini-nurseries as contrasted to large-scale nurseries. Fifth, the ADPs support farmers to set up interest groups of different sizes to manage irrigation facilities and promote agro- forestry and garden crops. In one got in Afso-Zuria of Antsokia, there were twelve interest groups consisting of forty-four households. Some of these groups have succeeded to convert previously barren land into irrigated fields, which are covered by green vegetables. They have also exhibited a tendency to switch form cereals to high value crops like vegetables and fruit frees.

The market for fruits and vegetables is promising as suggested by farmers themselves. Kemissie and Mekoy towns provide farmers with important market outlets. In addition, traders collect vegetables from local market places and sell them in Kombolcha. However, risk is involved in producing vegetables like onions not only because plant pest and diseases, but also because of price fluctuations. Besides, market opportunities are limited because of inadequacy of feeder roads. Most of the feeder roads which were built by the ADPs are not in a good shape. There is a need to repair and upgrade existing feeder roads and building new ones in collaboration with the regional government.

Irrigation water plays multiple roles in enhancing household food security. It plays a key role in the chain of processes leading to improve household food security. Irrigation schemes play multiple role like income diversification through the development of high value crops, increased supply of food for consumption, and reduction in the idle labour time, rehabilitation and protection of the environment, attaining gender equity (garden crops benefit women and children), and increased supply of potable water required for improved utilization of food.

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While giving due attention to the promotion of agro forestry, the ADPs have designed different intervention points for the promotion of tradition crops. As indicated above, maize, an important cereal, has been promoted indifferent ways. In addition, the ADPs strongly support the extension package of the regional government through different support schemes such as the training of development agents and other officials, cooperation in various areas like VET service and pest control, etc. The activities of the ADPs and that of the government compliment each other.

17. CHARACERIZING ADOPTERS

How do we characterize adopters of agroforestry and garden crops? This question was addressed on the basis of the following procedures, which were applied to Antsokia. First adopters were identified. For this purpose, the average income from the sales of cash crops (fruits, vegetables, onions, sugarcane, etc.) was estimated (see also Table 46). This came to about Birr 400 per household for those reporting sales of these crops (72% of sampled households in Antsokia reported sales of cash crops). Those who earned above one-fourth of the average (i.e. above Birr 100) were considered as adopters, while those who reported an income of less than one-fourth of the average were considered as non-adopters and lumped together with those who never reported sales of cash crops. Accordingly, adopters accounted for 61.2 percent of sampled households in Antsokia, while non-adopters accounted for 38.8 percent. (Interestingly enough, this ratio is actually greater than the ratio i.e., 50%, officially reported by Antsokia ADP, i.e. 2,730 household out of 5415 household adopted agrofrestry and garden crops). The next step was to compare and contrast selected household characteristics of adopters and non-adopters.

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As can be seen from the following table adopters are considerably better off than non-adopters. The former produce more of major crops than the latter. Production of cereals and pulses averaged 7.5 quintals per households for adopters as against 6 quintals for non-adopters. Adopters cultivated more cropland 3.36 **timad**) than non-adopters (3.01 **timads**). Adopters have built relatively large amount of assets in the form of trees, which averaged 380 in number (per household). They planted trees on area, which, on average, amounted to 1.05 **timad.** On the other hand, non-adopter possessed an average of 130 trees, which they planted on an average area of 0.42 **timad**. Proportionately large number of adopters (70.5%0 owned

18. Implications for Household Food Security

The current intensification efforts of the ADPs do face certain challenges. The pace of expansion of agro-forestry and garden crops schemes in a given locality is basically determined by the availability of surface and ground water, agro ecological factors, irrigation experience of the local people, settlement patterns, budget constraints, capacity of local government, etc. Why agro-forestry schemes have made significant strides in Antsokia and Kemissie, and not in Mehal-Meda can be explained by differences in the patterns of endowments these factors. In particular, agro-ecological factors play a critical role in explaining differentials in the rate of adoption of intensification practices by ADPs and by households within a given ADP. In addition, the rate of adoption can be partly explained by household characteristics like ownership of complementary input, attitude, accebility, etc. Why household with similar opportunities have different rates of adoption is a subject for further research.

What emerges from the above is that different groups of households achieve a given food security target at different times depending on the rates of adoption of a given technology in other words a universal target, like achieving per capita daily calorie of 2100 by the year 2002, may give misleading results. Average values do not exist in reality. A realistic indicator should be something like this. By the year 2002 certain percent of the total children in an ADP will attain this much stunting ratio. Interestingly enough, Kemissie ADP has adopted indicators, which are similar to what has been suggested here.

The livestock sector has received relatively limited attention in the intensification effort of the ADPs. Intensification of the livestock sub-sector is currently at a lower level of development. WVE needs to exert more efforts in areas like improved poultry, animal fattening, stall feeding, VET services, etc.. The main challenge here is how to improve the quality and productivity of animals using the minimum space. That is, the issue is how to reduce the grazing land area per animal and, at the same time, raise the Dollar value of an animal. Intensive livestock production systems should be introduced side by side with agroforestry and garden crops this system of farming could be successful in ADPs like Mehal Meda, where the potential for modernizing sheep farms in obvious.

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Access to food in Antsokia can be assed using the following approaches. According to the household survey, an average household in Antsokia required 10.44 quintals of cereals per year. From the same survey, we note that a household in Antsokia produced, on average, 10.32 quintals of cereals per year. That brings the deficit to a mere 12 kgs of cereals or Birr 19.68. (using an average grain price amounting to Borr 164 per quintal). It is not difficult to imagine that the majority of the farmers in Antsokia can easily cover this deficit, using their cash income.

Access to food can also be assessed in a slightly different way. A document of WVE (1999) states that a household may be said to be food secure if and when it can demonstrate the capacity to withstand shocks by accumulating convertible (to cash) resources/assets worth 20 percent of the food requirement in the household. The value of cereal requirement (cereal being the single major food item in the area) comes to Birr 1712.16 (10.44 quintals times Birr 164 which is the average price in the local market). Twenty percent of this value comes to Birr 342.4. This suggests that household in Antsokia could devot only a small proportion their assets to the purchase of food if the need be. Let alone selling assets, many farmers are evidently in a position to meet this requirement by selling cash crops. In this light, consider the following information about Antsokia as reported by the household survey. The major sources of cash income in the area, are: sales of livestock (Birr 576), wage earning (Birr 562) sales of onions (Birr 555), and sales of coffee (Birr 406). Sales of coffee alone can, on average, cover the twenty percent requirement convertible asset.

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Still another approach was used to quantify access to food in Antsokia. Given the standard requirement of grain for an Ethiopian (225 Kg of grain per person per year) and taking an average household size in Antsokia (which is 5.95 persons), it is possible to compare grain production in Antsokia (which is an average of 13.32 quintal per household) to the standard requirement (which comes to 10.32 quintals per household for an average household in Antsokia. Accordingly, un weighted grain production shortfalls come to 3.07 quintals or Birr 503 (at the current, un weighted average grain price in the local market). The required cash income (for the purchase of food) could be easily generated through the sales of cash crops in an ADP where a farmer, on average, gets Birr 406 form the sales of coffee, Birr 555 form onions, Birr 260 form sugarcane, Birr 449 form fruits, Birr 391 from chat, etc. Besides,

farmers can directly consume their own fruits and vegetables as ell as animal products. Moreover, it is not difficult to imagine that households (42% of the total) who can invest about 5000 Birr in corrugated iron sheet housing can easily meet their subsistence requirements.

Therefore, a quantitative analysis of the food security situations of households in Antsokia suggests that the majority of the households are food security even at a time when **belg** crops failed due to moisture stress. However, the methods used here suffer from certain shortcomings. For example, in quantifying household access to food, the nutritional requirements are not considered.

Moreover, households have built sufficient assets, which would enable them to withstand shocks. The income diversification efforts of the ADP has enabled households to improve their access to food at a time when direct entitlement

Therefore, a quantitative analysis of the food security situations of households in Antsokia suggests that the majority of the households have access to food even at a time when belg crops failed due to moisture stress.

Moreover, households have built sufficient assets, which would enable them to withstand shocks. The income diversification efforts of the ADP have enabled households to improve their access to food at a time when direct entitlement (production) is constrained by factors which are beyond the control of the ADB (i.e. the vagaries of nature).

The quantitative analysis apparently contradicts farmers' opinions about their food security situations. This could be partly explained by two factors. First, farmers tend to exaggerate or misinform about food availability in expectation of relief food. The dependency syndrome has spread widely in the area. Second, as the survey was undertaken during an abnormal period (i.e. drought and belg crop failure), farmers tend to compare their current situation with would have been the case during normal times.

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Table 68. **Alternative Approaches to Quantifying Access to Food in Antsokia**

Approaches	Description
1. Requirement compared to production	From the household survey, requirement of cereals comes to 10.44 qt/s/hh/year, while production = 10.32 qtls/hh. Therefore, deficit equals 12 kg (Birr 19.68)
2. Capacity to withstand shocks by accumulating convertible (to cash) assets worth 20% of the household food requirement	Required value of food = Birr 1712 (10.44 qtls times Birr 164); 20% of requirement comes to Birr 342 (deficit). Thus, hhs would **devote only a small proportion of assets**, if not use cash income to cover the deficit. Note: onion sales come to Birr 555, coffee sales average Birr 406/hh.
3. The standard requirement of grain (225 kg/person/year)	Requirement equals 13.39 qts (22 kg times 5.95 persons); grain production equals 10.32 qt/s/hh; and unweighted deficit = 3.07 qt/s = Birr 503. Again cash crops can cover this deficit.

Notes: . Birr 164 stands for the average (unweighted) grain price in the local markets in Antsokia.

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PART VI: CONCLUSIONS AND RECOMMENDAITON

In this study, special attention has been given to Antsokia, an ADP that has succeeded to register impressive achievements over the last fifteen years beginning from the time when it was considered as a dust bowl.

The data generate by the household survey must be interpreted with utmost caution. As stated in the introductory party of this paper, farmers have developed a strong tendency to underreport their incomes and exaggerate their problems. This point was confirmed through personal observation and through participatory rural appraisal techniques undertaken in the study areas. To mention but few examples, in Antsokia, almost every where we went, we saw apparently healthy and well-fed children.. A farmer in Antsokia, who, on one occasion said he had very little grain, was heard, on another occasion, telling somebody that he had 50 quintals of sorghum-stored underground. At the time when the old Birr was changed into the new one we are told, farmers in Antsokia flooded the bank with a lot of old currency. In Mehal Meda, a farmer with a large flock of sheep was heard saying that he had only few sheep as many of the flock belonged to his neighbors. In Antsokia, a farmer attempted to deliberately misinform us by telling us that he would like to sell his only ox in order to qualify for relief food. During group discussions, we observed farmers who deliberately lead us towards the issues of the distribution of relief food. For example, some elderly men in Antsokia mentioned " the good old days", meaning the time when WVE gave them blankets, bisucits porridge, etc. (i.e. mid - 1980s). They said, " today these things are no more there".

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19. SOME OBSERVATIONS ON THE ROLE OF NGOS IN EHTIOPIA

In Ethiopia, NGOs have contributed to the country's socio-economic development and welfare in different ways. More than 270 NGOs have reached up to 15% of the total population. They run about 576 projects with a running cost and investment outlays amounting to about 2.5 billion Birr. At one time, they handled about 60 % of all food aid coming to Ethiopia.

In addition to their relief and developmental efforts, NGOs have made significant progress towards effective policy advocacy work. Some of the innovative ventures of NGOs have already been endorsed by policy makers. For example, the idea of mainstreaming gender in development efforts and the innovative idea of group credit schemes can be mentioned.

However, the policy and legal frameworks of NGOs operations in Ethiopia are far from being conducive. The laws lag behind the reality of NGO activities. Many NGOs are unable to realize their declared mission and vision partly because of policy-related and procedural constraints as discussed in this paper.

Obviously, there is a need to provide a conducive policy and legal provisions concomitant with the definition uniqueness and mission of NGOs; encourage networking among NGOs; remove bureaucratic obstacles on NGO further operations; provide subsidies to local NGOs; provide tax exemptions on all items that are required for their developmental efforts and encourage income generating activities among local NGOs.

NGOs, on their part, need to reduce heavy dependence on donors, be more transparent in their activities, engage in more of advocacy work, and work more closely with the government and other stakeholders.

This study has important implications for poverty reduction strategy of Ethiopia. One conclusion that emerges from this study is that NGOs do make a difference in improving the quality of life among the poor. However, as things stand today, NGOs contributions are not yet incorporated into the development strategy of the Government. For example, the **Interim Poverty Reduction Strategy Paper** of the Government makes not explicit reference to the role

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NGOs in reducing poverty among the rural and urban poor. NGOs deserve a place, at least uivalent to that of the Ethiopian Social Rehabilitation and Development Fund (ESRDF), a ogram that was well treated in the Ethiopian Poverty Reduction Strategy Paper.

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20. CONCLUSIONS AND RECOMMENDATIONS

WVE, alike most CRDA members, initially reached its target population through relief efforts. Through experience, and as a result of government policies, it has passed through different phases and success fully adopted strategic plans for its ADPs.

WVE, through its interventions has made a difference in the woredas it operates. It has registered significant progress in household **livelihoods security** in the ADPs through household-and community-levels interventions in the area of social and physical facilities and through capacity building and environmental rehabilitation. In addition, coping mechanisms of the target population are improved through interventions like the introduction of cash crops, credit facilities, etc. Impressive achievements are registered, in particular, in the areas of agroforestry and garden crops and of potable water supply. It is no small achievement to provide potable water to 77% of the target population in a country where only 14% of the rural population has access to potable water.

When one looks at the changing conditions of Antsokia alone, one would confidently argue that life in this woreda has changed considerably during the last fifteen years as can be seen from the following Matrix. The food security positions of households have improved a great deal during the last fifteen years. Today, households have sufficient cushion against hunger in the form of assets, which they have built over years. Many households have succeeded to build buffers against further entitlement failure. A considerable number of households adopted agroforestry schemes and garden crops and have succeeded to diversify sources of cash income. In Antsokia, crops like fruits and vegetables have now become part of the local farming system. A new source of entitlement (i.e. cash crops) has been put in place. Above all, the possibility for sustainable food security has been created resulting from massive environmental rehabilitation efforts made over years.

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Matrix 3: Antsokia Today and 15 years Ago

Variable	15 years ago	Today
Literacy rate	23%	34%
No. of schools	2 full-fledged elementary school and 1 junior sec.school	There are 1 high school, & 24 primary schools
Health Institutes	Government clinics at Mekoy and Afso	There are 2 health centers, 5 clinics & 6 health posts. 60% reported a decrease in health problems over the last decade.
Water	Even most of the town people got drinking water from nearby rivers	There are 56 protected springs with 147 water points.
Environment	The area was left with " bare mountains". Human activity led to " complete devastation of the forests". and "reclamation could be virtually impossible".	Green mountains; area under individual trees amounted to 1.01 timad; a household has, on average, 366 trees; half of sampled households say" " I should take primary responsibility to protect community forests" (i.e. increased awareness).
Food Security	Almost total failure of entitlement, and large-scale dependent on relief food	Most households are enduring and resilient.

SOURCE: ?

As things stand today, households are far from the point where they deplete existing buffers (assets) against entitlement failure. This study has suggested that many households achieved reasonable access to food, while using a limited proportion of available assets. As things stand today, most households in the ADPs may be classified as "resilient" households rather than "enduring" or " fragile". Besides, timely distribution of relief food has provided vulnerable households with the incentive to refrain from the disposal of their assets. WVE's food and nutrition monitoring systems have worked well. Current trends in the sales of livestock could be reversed through more vigorous efforts in the areas of credit provision, adoption of new agricultural technologies, institutional building (such as the promotion of farmers cooperatives) and environmental rehabilitation.

Households are found to be vulnerable in the sense that they are exposed to risk of entitlement failure. In the study ADPs (as it is the case in other parts of rural Ethiopia), two types of shocks have prevailed. These are (1) output shock (crop failure and (2) food shocks (limited availability of food in the market and rises in food prices). However, the rise in food price has been dampened partly by increased supply of relief food. Fortunately, asset shock (such as

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massive death of livestock) has not been experienced during the study period. On the other hand, although it was not part of this study, HIV/AIDs could bring a about serious shocks unless preventive measures are taken in time. Further, this killer disease may cause a sudden drop in the productive capacity of households.

The major sources of risk are identified as natural factors, market and price uncertainty and volatility, and institutional factors. Among the vagaries of nature, one can single out the untimeliness and variability of rainfall, flooding, and increased prevalence of pests and diseases (of plants and animals) as the major constraints to economic activities in the ADPs.

WVE's attempt to control flooding and reclaim more land should be encouraged. Wide experience has already been gained as reported by MCE (1997). This report has already listed useful recommendations, which need to be implemented. Flood control schemes can generate several benefits. First, crop damage can be reduced. Second, additional land can be reclaimed. Reclamation itself can reduce seasonal flooding; make more land available for cultivation; and raise yields as farmers grow crops throughout the year (made possible by irrigation and by increased soil moisture) Third by taking preventive measures, it is possible to counteract the adverse effects of flood control schemes (such as reduced grazing land, increased flooding down stream, reduced marsh vegetation, possible conflict over irrigated land, adverse environmental effects, etc).

Marketing problems in the ADPs have manifested themselves through the supply of seeds for cash crops like onions in Antsokia and potatoes in Mehal-Meda. For both cash crops, farmers were unable to produce seeds on their farmers; they have to depend on purchased seeds coming from distant places. In addition to the high cost of seeds, farmers have encountered problems of untimeliness and unreliability of supplies of seeds. In Mehal-Meda, the woreda Agricultural Bureau was unable to supply the right amount of seeds at the right time. Moreover, the production of cash crops (on irrigated farms) in Mehal-Meda was constrained partly by limited market. In addition, farmers do encounter the usual problems of fluctuations of output prices, which reflect seasonality of agricultural activities. Modalities should be investigated concerning workable linkages with the private sector.

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Institutional factors, too, constrain economic activities in the ADPs, as it is the case elsewhere in rural Ethiopia. For example, frequent replacement of local officials hampers collaborative schemes set up for the ADPs (see Annual Program Report of WVE, 1999). In Mehal-Meda, the irrigation scheme of Mesele-Mariam P.A. was underutilized partly because of limited cooperation on the part of local administration.

The targeting setting exercises of the ADPs need to be reconsidered. Targets should be disaggregated and specific. Different targets should be set for those households who have successfully adopted agro-forestry and garden crops and for those who have not yet adopted these new practices. In addition, targets should be set under different scenarios. For example, targets under normal conditions should be different from targets set fro-abnormal conditions (such as drought). It is also important to set different targets for different categories of households, such as " enduring" "resilient" and fragile households.

In allocating scarce resources, NGOs face a classic dilemma, i.e. whether to concentrate resources in a given high potential geographic area and bring about conspicuous impact among the target population, or whether to timely spread resources over wide areas with a view to reaching maximum, numbers of households benefiting form limited interventions. The former approach first emerged in Ethiopia with the implementation of comprehensive package project (such as Chilalo Agricultural Development Unit). WVE has achieved impressive results by implementing a package of activities, over quite a long period, in Antsokia. Their WVE has invested about Birr 80 per person and Birr 125 per hectare of total land of the ADP. On the other hand, WVE has thinly spread scarce resources over the vast land area of Mahl Meda, where budget per person amounted to Birr 32. The question of sustainability of the projects remains partly unanswered. To the extent that Antsokia is concerned, the question of sustainability seems less serious. Anyhow, more efforts should be made in the area of capacity building in the ADPs.

Farmers' co-operatives have made little progress in spite of the government's efforts to put in place a legal framework and to set up promotional offices down to the woreda level. The anti-cooperative bias still seems widespread among peasants. More vigorous and concerted efforts are required to remove suspicion about the motives behind cooperatives and build confidence among peasants. The ADPs are in a position to work hand in hand with the regional

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government to consolidate various groups of farmers (such as interest groups for the utilization of irrigation water and credit groups into larger and viable cooperatives, including marketing cooperatives (between the ADPs and the government) is required to put in place effective pest and disease control mechanisms.

By way of a summary, the following matrices provide a synoptic view of achievements, issues, and options that different stakeholders would consider

Feeder roads play crucial roles in improving household access to food. Evidently, the ADPs have built a network of feeder roads. However, more efforts are expected from the regional government and the ADPs to build new ones and repair existing ones. Some of the existing roads are not in good shape. These are some areas not accessible by vehicles.

Animal fattening is an extremely promising sector that needs more attention from the regional government and the ADPs. The profitability of this sector arises from high livestock population in the ADPs, availability of grazing land for cattle in Kemissie (and lowland Antsokia) and for sheep in Mehal Meda, and potentially large supplies of fodder in the ADPs (e.g molasses from potential sugarcane farms in Kemissie and Antsokia).

Rice cultivation can be widely promoted in the waterlogged areas of Antsokia and Kemissie. The current experimental intervention of the Kemisie ADP should be encouraged. This crop can be added to the household income diversification efforts of the ADPs.

In Antsokia and Kemissie ADPs, maize has been found to be an increasingly popular crop because of its agronomic and economic characteristics. Perhaps, it is the only cereal which can be grown in diverse ways for multiple uses. It is grown as a **meher** crops and **belg** crop on we soils in the lowlands. Moreover, it is intercropped with coffee and other crops. It is also grown on irrigated fields. Because it can be grown within the hosted, women can effectively control its uses. Different types of food can be made from maize. Therefore, the ADPs and the regional government should further collaborate efforts with the government to promote maize production through the package programme.

The following two matrices summarized major achievements of the ADPs, review problems encountered and considers options available to stakeholders to address these problems.

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21. AGENDA FOR FURTHER RESEARCH

Further research is required to investigate interesting issues and hypotheses emerging from this study. The household survey suffers form-biased responses by sampled households as described in the study. It is technically possible to estimate the error margin and correct quantitative responses regarding questions on household food security. Further research is also required to determine why some farmers adopt agro forestry and garden crops while other are not, given similar agro-ecological conditions and equal access to irrigation water, seedlings, and training. In general, the following issues can be identified as agenda for further research.

- Undertake further research in the same ADPs, but during a normal period.

- Test the tentative model (i.e NGO induced intensification) using of WVE an from other NGO's experiences. The results of such a study can strengthen the policy advocacy works of developmental NGOs.

- Further characterize adopters (of agroforestry and garden crops) and investigate why some adopt, while other do not, although ecological conditions are the same.

- The study has suggested that Mehal-Meda ADP performed less satisfactorily than the other two ADPs. This could be due to several factors including the limited duration of intervention in the recently covered PAs, adverse ecological factors, the vast area to be covered facilitators, etc. On the other hand, Mehal-Meda does have untapped potentially in certain areas like sheep farms and handicraft. Therefore, further research is required to deeply investigate the potentials and limitations of this ADP and suggest the way out.

- Take an inventory of all households in an ADP and classify them into resilient, enduring, and fragile households. This would facilitate disaggregated targeting efforts.

- Estimate the error margin arising from biased response of farmers subjected to dependency syndrome. A research technique can be developed towards this end.

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- In the past farmers were provided with substantial credit facilities. But, no comprehensive study has been undertaken to examine the impact of credit and problems encountered. This is a subject that needs further investigation. WISDOM should learn from past experiences of the ADPs

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Matrix 4: **WVE's Food Security Intervention, Issues, and Options**

Intervention	Major achievements	Major Problems	Options
Food Production	Significant crop diversification attempts are made; training given, information built	Recurrent drought and erratic rainfall, prevalence of pests and diseases. In addition, extension work is beyond the domain of WVE. Soil degradation and land shortages are other problems. *Belg* cropping almost abandoned. -Need more flood control schemes -Flooding problems are serious	Collaborative efforts towards pest and disease control; more efforts to promote irrigated farms; promote indigenous technologies; focus on crop loss reduction.
Improved access to food	Significant progress in promoting cash crops in Antsokia, in particular; Provided physical infrastructure to improve access to market	Land shortages, prevalence of plant pests and disease; marketing problems market dependence and high cost of seeds of key cash crops, long-term rise in food price but decline in the relative prices of livestock; limited market for cash crops	Consider possibilities of providing improved market information systems and identifying available opportunities (comparative advantages); form service cooperative to address problems of marketing and prices; consider possibilities of establishing grain banks using iddir; increase investment in physical infrastructure
Asset building	Assets are built, particularly, in Antsokia in the form of individual trees. Corrugated iron sheet houses in Antsokia.	Low value of asset per household;asset sales in the phase of crop failure falling prices of livestock; prevalence of animal diseases;	Increase efforts to promote individual wood lots and trees; provide more relief food to reverse trends in the falling (relative) prices of livestock; do more advocacy work (hand-in-hand with CRDA) to promote savings and credit among target population; pay special attention to problems of animal diseases
Improved utilization of food	No evidence of significant achievement in this area	This strategy is yet to be clearly defined and be implement in concrete terms. But significant achievement in the provision of grain mill and training of women.	The food chain consists of production, marketing, processing and preparation. Therefore, improved utilization alone is not enough. There is a need to reduce pre-harvest and post-harvest losses (in processing and preparation). In addition, more marketing utilities should be created. Accordingly, provide more processing facility (like grain mill), fuel-efficient stoves, better home economics, storage facilities, etc.

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Matrix 5: Stakeholders Interventions

Areas	WVE	CRDA	The community	Government
Crop & livestock production	• Give more attention to crop loss reduction strategies improvement of quality of animals feeds irrigation	• More advocacy work in favor NGOs intervention in the area of agricultural extension • Provide more training facilities	•Increased articipation in the development process • Utilize indigenous knowledge systems of local people • Strengthen interest groups and farmers cooperatives	• Strengthen collaborative efforts with NGO • Encourage increased participation of NGOs in extension work • Further develop strateies to reduce crop losses and improve quality of animals Give more attention to flood control mechanisms & irrigation efforts • Further supply of new technology needed.
Indirect entitlement to food (market access)	• Increased attention to cultivation of cash crops, market surveys infrastructure etc.	• Further training on micro enterprise	• Service cooperatives should be strengthened	• Provide market information systems • Facilitate the provision of seeds for cash crops • Encourage local officials to work more closely with NGOs
Asset Building	• Focus on individual tree plots than community forest Exploit the potentials of ADPs in the livestock sector (e.g. sheep farm and agro industry in Mehl Meda) • Review past and current credit schemes and put in place more effective credit system (' e.g. provide consumption credit to prevent asset depletion)	• More advocacy work is needed to strengthen NGO's intervention in the area of saving and credit •Undertake a comprehensive review of current micro finance arrangements and past saving and credit schemes undertaken by NGOs	• Farmers credit cooperatives should be strengthened • Common property resource management efforts of farmers should be updated. • Increased awareness and capacity building among farmers	• The regional government's decision to grant use rights of individual tree plots should be appreciated and encouraged • Current Micro finance policy should be reconsidered

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ANNEXES

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Annex 1a: List of Enumerators and Their Qualification

No.	Name	ADP	ESLCE results	Experience
1	Shegiye Zeleke	Antsokia	2.4	Participated in hh survey
2	Zera Aklilu	"	2.2	" "
3	Girma Haile	"	2.4	" "
4	Assefa Mamo	"	2.0	" "
5	Demissie Yosuf	"	2.2	" "
6	Shiferaw Shewamen	"	2.4	" "
7	Ahmed Seid	"	2.2	" "
8	Mohammed Yosuf	"	2.4	" "
9	Beletew Abebe	"	2.2	" "
10	Tesfaye Getachew	"	2.2	" "
11	Menas Tefera	Kemissie	2.8	" "
12	Aklilu Dejene	"	2.4	" "
13	Alem Ayenew (Female)	"	2.2	" "
14	Aragaw Tadesse	"	2.4	" "
15	Addis-Alem Muluwork	"	2.8	" "
16	Mesfin Addis-Alem	"	3.0	University student
17	Desta Etefa	"	3.2	University student
18	Dawad Seid	"	3.6	University student
19	Belay Belete (Female)_	"	1.8	Participated in hh survey
20	Ketema Mengistie	"	2.0	" "
21	Zerigun Lulseged	"	2.0	" "
22	Seid Yimer	"	2.0	" "
23	Demissie Yosuf	"	2.0	" "
24	Tale Eshete	Mehal-Meda	2.2	" "
25	Getacher Hailu	"	2.2	" "
26	W/Tsadik Yemiru	"	2.0	" "
27	Aberra W/Mariam	"	2.0	" "
28	Solomon Hailu	"	2.0	" "
29	Pawlos Lesa-work	"	2.0	" "
30	Kagnew Debabu	"	2.0	" "
31	Belayihun Legese	"	2.4	" "
32	Asselif Zikie	"	2.0	" "
33	Chemirie Zemedkun	"	2.4	" "

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Annex 1b : List of Key Informants

Name	Institution	Position
Siyoum Hailu	Woreda Agriculture Office	Development agent, AglaMajete, Antsokia ADP
Ato Markos	WISDOM	Head, Kemissie Office
Mohammed Ahmed	Agricultural Office, Dawacheffa woreda, Kemissie	Head

Annex 1C: ADP Staff Available for Consultations

No.	Name	Institution	Position
1	Ato Yeshitla Abebe	Antsokia-Gemza	Team leader.
2	Ato Dagnachew Alemu	"	Ag. Facilitator
3	Endale Eshete	Kemissie	Team leader
4	Befekadu Gebre	"	"
5	Zewdie Harom	Mehal-Meda	Team leader
6	Berhanu Wolde	"	"
7	Ato Debebe Taye	Kemessie ADP	Manager
8	Samuel Sugemo	Antsokia Gemza	Manager
9	Kassahun Teka	"	Social Worker

Note: In addition to those staff members listed above, several member gave us valuable Supported during the field survey. I am highly indebted to all of them.

Staff members who were Actively Associated with the Study

1. Ato Beyene Geleta
2. Ato Yadessa Mossissa

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Annex 1d: List of Informants Participating in Group Discussion

No.	Name	Age	P.A.	ADP
1	Abebaw Mamo	41	Mekdessa	Antsokia-Gemza
2	Amakele Ayele	74	"	"
3	Dawud Mohammed	75	"	"
4	Yasin Ali	40	"	"
5	Fante Gebre	57	"	"
6	Ahmed Assefa	35	Afso-Zuria	"
7	Bekele Ayinku	48	"	"
8	Mamo Tsegaye	50	"	"
9	Askale Bekele (Female)	25	"	"
10	Bekele Mesele	59	"	"
11	Gezahegn Abebe	38	Negassi-Amba	Mehal-Meda
12	Abebe Assele	40	"	"
13	Yakit Workie	33	"	"
14	Tefera Mekonnen	50	"	"
15	Tefera Demeke	40	"	"
16	Tilie Sebsibie	60	"	"
17	Kebede Desta	63	"	"
18	Bekele Shewa	76	"	"
19	Eshetu Mulatu	36	"	"
20	Shegaw Tefera	30	Mesele-Mariam	Mehal-Meda
21	Wale Damtew	70	"	"
22	Arege Kassa	38	"	"
23	Gebre-Meskel Sikeberu	67	Sitir-Dega	"
24	Admassu H/Wold	60	"	"
25	Ayitenew W/Meskel	78	Mesele-Mariam	"
26	Dingo Tesema	70	Mesele-Mariam	"

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Annex 2: Participatory Rural Appraisal (PRA)

Participatory Rural Appraisal (PRA) is far from being rigid; its application depends on the personal judgment of the researcher as suggested by Mikkelsen (1995: 70):

> One implication of the overruling principle of PRA, "Use your own best judgment at all times", is **invention**. Participatory assessments activities are methods for creating dialogue and for collecting information. They are characterized by ingenuity and flexibility. Which methods to apply depend on the specific context. The paradox is that if PRAs are rigidly done according to fixed formulas, the whole idea of the exercise is jeopardized.

Simi-structured interviews should not necessarily be rigid as graphically indicated by the following observation:

> Increasingly, interviews based on written or **memorized** checklists take the place of or supplement large-scale structured questionnaire surveys. In semi-structured interviews, questions are open-ended. **Unexpected, relevant issues are followed up with further questions or probing**. Interviewees are typically key individuals, focus groups or mixed groups (Mikkelsen 1995:75).

In a similar fashion, Punch (1998:185) notes that:

> Qualitative approaches to observation are much more unstructured. In this case, the researcher does not use predetermined categories and classifications, but makes observations in a more natural open-ended way. Whatever the recording technique, the behavior is observed as the stream of actions and events as they naturally unfold.

Qualitative research, unlike quantitive research, does not rely on probability sampling directed at representatives. Accordingly, Punch (1998:193) notes that:

> Qualitative research would rarely use probability sampling, but rather would use some sort of deliberate sampling: "Purposive sampling" is the term often used. It means sampling in a deliberate way, with some purposes or focus in mind.

Moreover, "there are situations where convenience sampling would be appropriate, where advantage is taken of cases, events, situations or informants which are close at hand" (Punch 1998: 193).

PRA methods serve different purposes (e.g. see Mikkelesen 1995: 72-73). According to Punch (1998: 194), "the sampling plan and sampling parameters should line up with the purposes and research questions of the study.

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Annex 3: Concepts and Definitions

The definitions of the following terms are drawn from CSA's Welfare Monitoring Survey of 1998

a) **Household:** Constitutes of a person or group of persons, irrespective of weather related or not who normally live together in the same housing unit or group of housing units and who have common cooking arrangements.

b) **Head of household**: A head of a household is a person who economically supports or manages the household or for reasons of age or respect, is considered as head by the household or declares himself as such or by members of the household is called head of the household. The head of the household could be a male or a female.

c) **Member of household:** person constituting a household is called member of the household. The following are considered as members of a household:

I. All persons who lived and ate with the household for at least six months including those who were not within the household at the time of the survey and were expected to be absent from the household for less than six months
II. All guests and visitors who ate and stayed with the household for six months and more.
III. House maids, guards, baby-sitters, etc. who lived and ate with the household even for less than six months.

d) **Wasting (acute malnutrition):** A nutritionally deficient state of recent onset related to sudden food deprivation or malabsorption or poor utilization of nutrients, which results in rapid weight loss. The highest prevalence occur in times of famine, during seasonal food shortages, or during sever illness. A child who is less than 80 percent of the reference medium for weigh-for-height, or two standard deviations below it, is classified as "acutely malnourished" or "wasted".

e) **Stunting (chronic malnutrition):** A nutritional deficient state related to frequent episodes of acute malnutrition or a long-term food deficiency, often combined with persistent or recurrent ill health in the first few years of life. A child who is less than 90 percent of the reference median of height-for-age, or two standard deviations below it, is classified as "chronically malnourished" or "stunted".

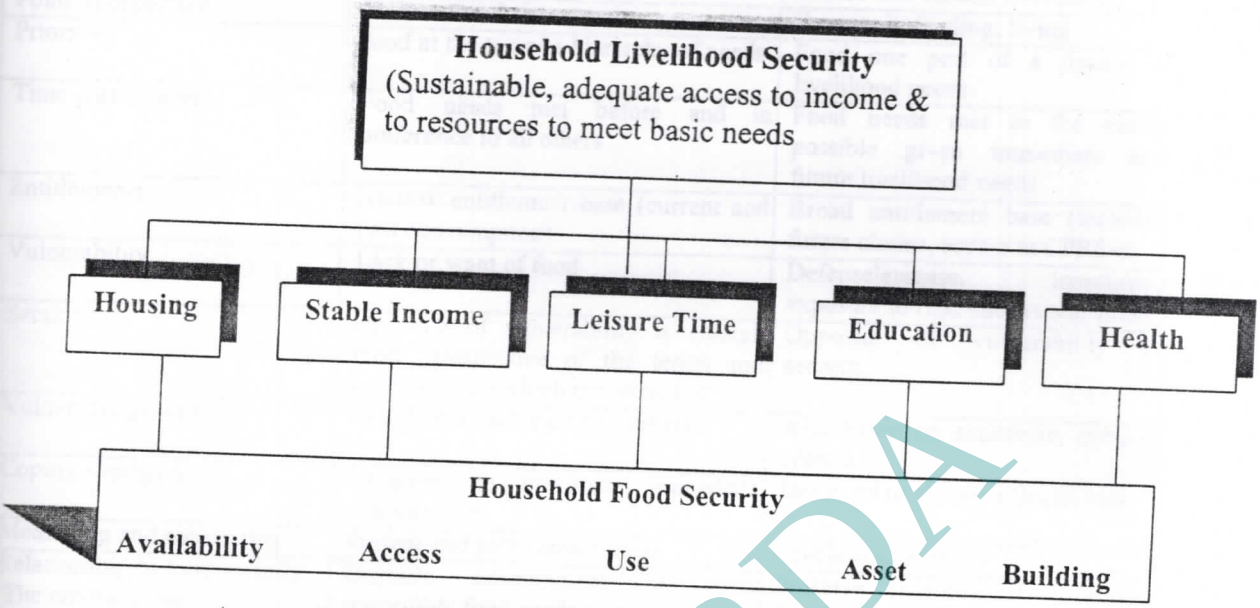
f) **Underweight:** A nutritional status indicator of malnutrition (either acute or chronic malnutrition) based on the principle that a child has an expected weight for that child's age.

g) **Cross –section data, Time Series Data, and pooled Data**

Cross – section data refers to data collected from different geographical location during a poing of time. Time series data refers to data collected from the same geographical location over different periods or years. Pooled data stands for a combination of cross-section and time series data.

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Livelihood security is something more than food security. As depicted in the following figure, livelihood security stands for basic needs like food, shelter, education, employment, health, and leisure. Achieving food security is at the same time an element and foundation of livelihood security. "Households are food secure when their livelihoods are sustainable" Moreover, " a livelihood comprises the adequate stocks and flows of food and cash to meet basic needs" (Frankenberger 1992).



Annex 4 Sources of Risk to Household Food Security

Source of Entitlement	Type of Risk				
	Natural	State	Market	Community	Other
Productive capital (land, machinery tools animals, farm buildings, trees wells etc.)	Drought contamination (for example, of wate supplies) Land degradation fir flooding	Land or other asse redistribution/confiscatio n	Changes in costs o maintenance	Appropriation & los of access to commo property resources	Loss of land as a result of conflict
Non –productive capital (jewelry dwellings, granaries, some animals cash savings)	Pests animal disease	Compulsory procurement villageisation wealth tax	Price shocks (fo example, falls i value of jewelry an livestock) rapi inflation	Breakdown o sharing mechanism (for example communal granaries)	Loss of assets as a resul of war theft
Human capital (labour power education, health)	Disease epidemics (fo example AIDS) Morbidit mortality disability	Declining public healt expenditures and/o introduction of use charges Restrictions o labour migration	Unemployment falling real wages	Breakdown of labou reciprocity	Forced labour conscriptio Mobility restriction destruction of schools an clinics during war
Income (crops, livestock, non-far and non-agricultural activity)	Pests drought and othe climatic events	Cessation of extensio services, subsides o inputs or price suppor schemes tax increases	Commodity pric falls food price shocks		Marketing channel disrupted by wa Embargoes
Claims (loans, gifts, social contracts social scurity)		Reductions in nutritio programs (for exampl school feeding Supplementary feeding)	Rises in interest rate changes in borrowin capacity	Loan recal Breakdown o reciprocity	Communities disrupted/displaced by war

Source: Maxwell & Franklen berge 1992

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Annex 5 : Difference Between a Narrow "Food First" Approach & Wider "Sustainable Livelihood" Approach to Household Food Security

Livelihood	" Food First" Approach	"Sustainable Livelihood" Approach
Objective	Access to food	Secure and sustain livelihood
Point of departure	Failure to subsist	Success in feeding, living
Priorities	food at the top of a hierarchy of needs	Food one part of a jigsaw of livelihood needs
Time preferences	Food needs met before and in preference to all others	Food needs met to the extent possible given immediate and future livelihood needs
Entitlements	Narrow entitlement base (current and past consumption)	Broad entitlement base (includes future claims, access to CPRS etc.
Vulnerability	Lack or want of food	Defenselessness, insecurity, exposure to risk, shocks and stress
Security	Opposite of vulnerability is enough food, irrespective of the terms and conditions on which it is acquired	Opposite of vulnerability is security
Vulnerable groups	Based on social, medical criteria	Also based on economic, cultural criteria
Coping strategies	Designed to maximize immediate consumption	Designed to preserve livelihoods
Measuring and monitoring	Present and past consumption	Livelihood intensity
Relationship to food security The environment	Degrade environment to meet immediate food needs	Preserve environment to secure future

Source: (Maxwell & Frankenberger 1992)

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Annex 6: The Future Direction of WVE

WVE's vision is still unfolding. The organization intends to continue to refine and reform its strategic direction in agreement with the principles enshrined in WVE's partnership documents and the corresponding regional and national visions. In the coming years, WVE plans to strengthen its multi-faceted relation with the partnership and its local stake-holders by acting as a facilitating Christian agency in its development efforts, which are child- focused, community-based and sustainable.

i) Promotion of Food Security at Household Level

In the coming years, all programs and projects to be conducted by WVE and its stakeholders will be targeted to promote food security at household level. This will entail the establishment of proper linkage between project components i.e. health, agriculture, water development. MED (micro enterprise development) so that they can ultimately help to meet the food needs of targeted communities. Food security program of the organization will be gender sensitive, local resource based, sustainable and impact targeted. It will also consider the government's plan in this area and will play a complimentary role in meeting national objectives.

ii) Strengthening Networking

WVE will strengthen its networking efforts with local stakeholders and in the partnership. Meaningful and appropriate position in the partnership. This will mean that WVE will acquire an appropriate position in the communities and will maintain close contact with communities. In this context, strong relations will be maintained with government bodies, line ministries, UN systems churches and NGOs in the areas of media relations advocacy, justice, peace and reconciliation. WVE will render positive contribution in the promotion of the rights of the child, the disabled and will strive to cooperate with stakeholders in the areas of Gender and development, the environment and other issues of national and international concern.

iii) Growth In Quality of Ministry

WVE will give top priority to the sustainability and cost effectiveness of its project interventions. Efforts will be made to avoid competitiveness and duplication of efforts in project implementation. WVE will play a **supplementary and complementary** role in promoting integrated rural development programs in the country. The organization's development efforts will be **holistic** both in content, direction and impacts. Future programs will enhance transformational development with a special emphasis on the spiritual, social and material development of the communities in which we work. All program components will be child and community focused reaching more communities. All programs will be environmentally friendly and geared to building the capacity of stakeholders. Program area coverage and target population will increase.

In addition, improvement will be made in program quality by establishing participatory monitoring and evaluation system and by developing viable standards and indicators. Appropriate reporting formats will be refined and used.

iv) Promotion of Advocacy, Peace and Reconciliation

WVE will focus on the promotion of human rights with a special emphasis on the rights of the child and that of gender and development. WVE will cooperate with its stakeholders in the strengthening of peace and reconciliation as an important component for nationwide development. Special consideration will be given to the protection of the environment and the maintenance of natural fauna and flora.

vi) WVE Towards A Full Fledged National NGO

Having accomplished the above tasks, WVE expects to continue growing as a country based NGO and uphold the principle of **independence and interdependence**. WVE will maintain its rightful position in the partnership by abiding to the mission documents in practice while maintaining its relative independence locally.

WVE will maintain potential focused, resource based and sustainable development strategy. The organization's phase in/out strategy will focus on further integration of ADPs and **expansion into different areas**. Growth both in resource, budget and CIP (Children In Program) is expected. It is expected that there will be 3.5% annual growth in resource development. Addressing the immediate and long term needs of children and their families will continue.

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In terms of project performance, budgeting, monitoring and evaluation, support office based projects will flourish and ADP-SO relations will be strengthened.
In a similar fashion, Punch (1998: 185) notes that:

> Qualitative approaches to observation are much more unstructured. In this case, the researcher does not use predetermined categories and classifications, but makes observations in a more natural open-ended way. Whatever the recording technique, the behavior is observed as the stream of actions and events as they naturally unfold.

Qualitative research, unlike quantitative research, does not rely on probability sampling directed at representatives. Accordingly, Punch (1998: 193) notes that:

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Annex 7: Selected Indicators of Food Security and status of Social Services: Estimate of the Atnsokia ADP

Variables	Baseline (1997)	Achievement in 1999	Project life target
Proportion of farmers adopting irrigatio (%)	20	28	40
HHs engaged in improved gardening (%)	4	16	19
Area under irrigation (ha)	580	886	1160
Area under plantation (ha)	1110	1324	1650
Per capita cereal production (Q/hh)	7.4	N.A	12
Malnutrition index (stunting ratio)	66.0	43.5	35
HHs with corrugated iron sheet roofe houses (%)	25.2	33.0	40
Proportion of children fully immunize (%)	55	75.0	85
Proportion of families adopting family planning (%)	7.7	30.0	26
Proportion of latrine users	11.0	22.0	30
Water supply coverage (% of hhs)	32.4	65.0	75
Primary school enrollment ratio (%)	41.0	59.0	61
Health service coverage (%)	56.0	56.0	85
Literacy rate	44.0	52.0	63

Source: World Vision Ethiopia (1999). Annual Report of Antsokia –Gemza ADP, Fiscal year 1999.

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Annex 8: Comparison of Old and New P.A.s: Selected Variables and Comparison with Zonal Averages

Variables	ADP	Old	New	ADP av.
% having corrugated iron sheet houses	Antsokia	39.9	70.3	42.1
% using river as main source of drinking water	Mehal-Meda	36.7	17.0	21.3
% using river as main source of drinking water	Kemissie	12.9	38.8	26.8
%using river as main source of drinking water	Antsokia	22.6	5.4	19.1
% using mainly purchased cooking fuel	Antsokia	0.7	16.2	3.8
Mean distance from all facilities (Minutes)	Mehal-Meda	77.57	138.73	124.66
Mean distance from all facilities (minutes)	Kemissie	47.68	59.47	53.82
Mean distance from all facilities (minutes)	Antsokia	46.89	25.19	42.48
Mean distance from market (minutes)	Antsokia	50.40	12.22	56.77
Mean distance from post office (minutes)	Antsokia	65.48	12.24	110.45
Mean distance from telephone service (minutes)	Antsokia	67.40	12.69	108.99
No. of tree per hh	Mehal-Meda	334.29	188.67	209.47
No. of trees per hh	Kemissie	220.97	15.64	168.44
No. of trees per hh	Antsokia	394.33	261.64	367.5
Area under trees (timad)	Mehal-Meda	0.90	0.98	0.97
Area under trees (timad)	Kemissie	0.61	0.90	0.65
Area under trees (timad)	Antsokia	1.04	0.91	1.01
% of hhs having wood lots	Mehal-Meda	30.00	42.5	39.7
% hhs having woodlots	Kemissie	38.8	11.2	24.0
% of hhs having woodlots	Antsokia	27.4	29.7	27.9
Awareness (%)	Mehal-Meda	43.3	27.4	30.9
Awareness (%)	Kemissie	4.7	7.1	6.0
Awareness (%)	Antsokia	52.1	43.2	50.3

The term "old" refers to those P.A.s in which the ADPs have operated for long time. "New" refers to P.A.s relatively recently covered by the ADPs.

Awareness refers to percent of households saying, "I should take the primary responsibility for to protect community forests".

Source: Household Survey

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Annex 9: Nutritional Survey 1993-1997 (% of Children with <80% WFL)

Year	Antsokia	Kemissie	Mehal-Meda
March 1993	5.0	1.0	9.0
July -Aug 1993	2.6	3.0	4.0
Jan- March 1994	2.2	3.5	5.5
May-June 1994	3.3	5.0	7.0
Nov . 1994	4.8	1.8	10.3
May 1995	2.5	1.7	7.0
Nov - Dec 1996	7.5	4.3	4.4
Nov.-Dec. 1996	4.9	2.1	5.2
May 1997	3.6	3.2	6.1
Dec - Nov. 1997	6.8	3.8	4.2

Yearly Unweighted Averages (80% WFL)

Year	Antsokia	Kemissie	Mehal-Meda
1993	3.80	2.00	6.50
1994	3.43	3.43	7.90
1995	5.00	3.00	5.70
1996	4.55	1.85	4.90
1997	5.20	3.50	5.15

WFL= Weight-for-length (This technique was used up to 1997).
Source: Documents of ADPs

Annex 10: Population Densities of the Woreda in Which the ADPs are Located

Woreda/Town	ADP	Population	Area(km^2)	Woreda Pop. Density (persons/km^2)
Antsokiyana-Gemza (Woreda)	Antsokia-Gemza	87.038	386.10	225.4
Gera-Midirna-Keya Gebriel (Woreda)	Mehal-Meda	156,669	1,686.88	92.9
Archuma –Julie & Dawa Chaffa woreda	Kemissie	193,541	1,212.03	159.7
Mekoy (Town)	Antsokia_Gemza	4,954	--	--
Majetie (Town)	"	8,312	--	--
Mehal-Meda (Town)	Mehal-Meda	9,172	--	--
Kemissie	Kemissie	14,465	--	--

Source: CSA, Statistical Abstract 1999

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WVE Capacity Building Division Food Security Contributions OF NGOS In Amhara Region: Antsokia-Gemza, Kemessie And Mehal-Meda

HOUSEHOLD SURVEY

Zone _____
Woreda _____
ADP _____
Got _____
Name of hh head _____
HH size _____

Code _____
Name of enumerator _____
Name and Signature of Supervisor _____
Date of Survey _____

Section 1: Economic and Demographic Characteristics of Households

The hh head is the first in the list to be followed by the spouse
See codes in the footnote for columns 2,4,5,6,7 & 8

Code	Name	Relation to hh head	Age	Sex 1=Male 2=Female	Education	Main Occupa-tion	Health 1=Yes 2=No	Marital Status
0	1	2	3	4	6	7	7	8
1								
2								
3								
4								
5								
6								
7								
8								
9								
0								

Column 3: Write zero for age below one year
Column 7: Health: Has this hh member faced any health problem during the last 2 months (Yes,No)

Column 2: Relation to hh head

1) Head
2) Spouse
3) Daughter/son
4) Grand daughter/son
5) Father/mother
6) Sister/Brother
7) Niece/Nephew
8) Uncle/Aunt
9) In-law
10) Grand parent
11) Servant
12) Adopted/foster-child
13) other(specify)……

Column 6: Occupation

1) Farmer
2) Herder
3) Arisen(e.g Weaver, Potter)
4) Trader
5) Housewife
6) Student
7) Not in labour force
8) Disabled
9) Pensioner/elderly person
10) Unemployed
11) Others

Column 8:Marital Status

1) Married
2) Single
3) Divorced
4) Widow/widower
5) Not applicable

Column 5: Education

1) Illiterate
2) Read & write only
3) Elementary School
4) Junior Secondary
5) Senior Secondary
6) 12 complete
7) Above 12th grade

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Section 2: Housing Amenities

2.1 Type of house ☐ 1. Thatched 2. Corrugated iron sheet

2.2 What is the main source of drinking water now ☐

1. River
2. Protected well
3. Common tap
4. Own tap
5. Protected spring

2.3 Does the hh have a habit of boiling water before drinking ☐

1. Yes 2. No

2.4 What is the main type of cooking fuel ? ☐

1. Mainly collected firewood 2. Mainly purchased firewood
3. Charcoal, kerosene 4. Cow dung 5. Gas 6. Crop residue
7. Others

2.5 What type of toilet facility does the hh use?

1. Flush toilet 2. Pit 3. field/forest 4. VIP latrines 5. Others

Section 3: **Access to Facilities**

❖ How far is the nearest facility from (km, meters,hours)

Facilities	**Distance**	***Unit of Distance*** 1 = Km 2. Minute 3 = Meter 4. Hour
1 = Market		
2 = Post Office		
3 = Telephone Service		
4 = Clinic		
5 = Hospital		
6 = Transport Service		
7 = Source of drinking water		
8 = Grain milling service		
9 = Source of firewood		

Section 4 : Assets and Property

4.1 Does any member of the hh (including hh head) own any land holding ☐

1. Yes 2. No

If Yes, answer question 4.2 and 4.3. If not, go to 4.4.

4.2 Give total size for the hh _____, (timad, kurt) of which crop land_____.

4.3 Any changes in the size of holding in the last 12 months ☐

1. No change 2. Increased 3. Decreased

4.4 During the last 12 months, have you rent out land? ☐

1. No change 2. Increased 3. Decreased

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4.5 During the last 12 months, have you rented in land? ☐

1. Yes 2. No

4.6 Which one of the following asset does the hh own and how many?

No	Item	1=Yes 2= No	If " Yes", Number
1	Mofer & kember		
2	Sickle		
3	Draft oxen		
4	Cows		
5	Camel		
6	Horses		
7	Mules		
8	Donkey		
9	Goat		
10	Sheep		
11	Improved breeds of poultry		
12	Radio		
13	Tape		

Section 5: Household Expenditure

How much is the usual expenditure (in Birr) on the following for 7 days, for one month and for 12 months

No	Items	7 Days	One Month	12 Month	Change in the last 12 month: 1= Increase 2=Decrease 3=No change
1	Cereals				
2	Pulses				
3	Oilseeds				
4	Fruits				
5	Vegetables				
6	Meat				
7	Sugar				
8	Butter				
9	Other food items				
10	Education: like exercise books, book, Uniform etc.				
11	Transport & Communication				
12	Medical care				
13	Clothings				

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Section 6: Household Income

How much income (in Birr) did the hh receive during the last month, and last 6 months, last 12 months?

No	Sources of Income	Last month	Last 6 months	Last 12 months
	Agricultural Income	////////////////	////////////////	////////////////
1	Sale of cereals			
2	Sale of pulses			
3	Sale of oil seeds			
4	Sale of papaya			
5	Sales of banana			
6	Sales of coffee			
7	Sales of citrus fruits			
8	Sale of other fruits			
9	Sale of livestock			
10	Sale of chat			
11	Sale of sugarcane			
12	Sale of onion			
13	Sale of other vegetables			
	Non-agricultural income	////////////////	////////////////	////////////////
14	Sale of eucalyptus trees			
15	Handicrafts			
16	Wages			
17	Gift, remittance, etc			
18	Sales of drinks/processed food			
19	Cow dung			
20	Gesho			
21	Grass			
22	Firewood			
23	Petty Trade			
24	Food aid in kg.			

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Section 7: Area and Crop Production (Refers to last Meher and Belg)

No	Type of crop grown	Meher		Belg	
		Area (in timad/kurt)	Production (in kg)	Area (in timed/kurt	Production (in kg)
1	Teff				
2	Barley				
3	Maize				
4	Zengada				
5	Wheat				
6	Sorghum (mashita)				
7	Other cereals				
8	Chick peas				
9	Haricot beans				
10	Horse beans				
11	Misir				
12	Peas				
13	Gibto				
14	Other pulses				
15	Nug				
16	Telba				
17	Sesame (Selit)				
18	Gomenzer				
19	Other oil seeds				

Section 8: Crop Purchases and Sales and Transfer in the Last 12 Months (use crop code from section)

No	*Crops*	*Purchased*		*Sold*		*Transfer*			
						Received		*Gave*	
		Amount (Kg)	*Amount (Birr)*	*Amount (Kg)*	*Amount (Birr)*	*Amount (kg)*	*Amount (Birr*	*Amount (Kg)*	*Amount (Birr)*
1									
2									
3									
4									
5									

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Section 9: Comparing Personal and Economic Life Today and Life 10 Years Ago

No	Variables	1 = Increase 2 = Decrease 3= No change 4 = Not applicable
1	Modern farm inputs	
2	Production of fruits	
3	Production of vegetables	
4	Production of cereals	
5	Yield of cash crops	
6	Food availability (for consumption)	
7	No of livestock	
8	Incidence of human diseases	
9	Incidence of animal diseases	
10	Incidence of plants diseases (Pests)	
11	Sources of income	
12	Cash income	
13	Borrowing from moneylenders	
14	Clothing, quality & quantity of	
15	No. of meals eaten per day	
16	Availability of dry weather roads	
17	Availability of all-weather roads	
18	Ownership of asset like radio, tape, etc.	

Section 10: Food Availability and Consumption

10.1 How many quintals of food grain does your family require for subsistence in a normal year ?

1. Cereals _____ Qt
2. Pulses _____ Qt
3. Oil seeds _____ Qt
4. Vegetables _____ Qt

10.2 Do you think you have enough food for your family? ☐

1. Yes, throughout the year
2. Yes, but in some months
3. No

10.3 Write appropriate number (s), if meal is served to an adult male regularly ☐☐☐☐

1. Breakfast
2. Lunch
3. Dinner
4. Snack

10.4 Write the appropriate number (s), if meal is served to an adult female regularly ☐☐☐☐

1. Breakfast
2. Lunch
3. Dinner
4. Snack

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10.5 Do you get relief food currently? ☐

1. Yes 2. No

Section 11: Environmental Protection

11.1 Do you have wood lots or trees? ☐ 1. Yes 2. No

11.2 If yes to the above question, indicate size of wood lots in number and timad: number of trees _____, area under trees _____ in kurt/timad.

11.3 Who, do you think, should take primary responsibility to protect community forests (which actually exists or which could be promoted in the future) ? ☐

1. NGOs 2. Government 3. The community 4. Myself

Section 12: Savings and Credit

12.1 Have you ever borrowed money (or in kind) from an institutional lender? ☐

1. Yes 2. No

If yes answer the following (4) question, if not, go to 12.6,

12.2 From which institution(s) did you borrow ? ☐☐☐☐☐

1. WVE 2. WISDOM 3. ASCI 4. Agricultural Bureau
5. Others

12.3 Please indicate the major (or the most important) purpose of borrowing or type of credit ☐

1. Agricultural credit (e.g to purchase draft oxen, water pump, etc.)
2. Petty trade
3. Handicraft 4. Others

12.4 How do you assess benefits derived form institutional credit?

1. Very much 2. Moderate 3. Little 4. Nothing

12.5 If you benefited from institutional credit, please indicate the impact it has on you

☐☐☐☐☐

1. Agricultural productivity increased 2. Assets are built
3. Handicraft expanded 4. Petty trade expanded 5. Others

12.6 Have you ever saved money in the last 12 months? ☐☐

1. Yes 2. No

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ection 13: Handicraft

3.1 Are you (or family member) engaged in handicraft ? ☐

1. Yes 2. No

If yes please respond to the following questions 4 questions, if not, go to section 14

3.2 Which member the family is engaged in handicraft (Fill in the relevant code). ☐

3.3 Do you (or family member) have adequate equipment for your business (handicraft) ? ☐

1. Yes 2. No

3.4 Indicate the type of handicraft you (or family member) are engaged in ☐☐☐☐

1. Weaving bana
2. Weaving other cloths
3. Iron works
4. Basketry
5. Pottery
6. Other (specify)____

3.5 Please indicate the main constraint to your business (Handicraft) ☐

1. Shortage of raw materials
2. Lack of market
3. Lack of credit
4. Other (specify)

ction 14: Miscellaneous

4.1 Have you got a temporary dependent who came and lived with you, during the last 6 months? ☐

1. Yes 2. No

4.2 Please identify major problems, in the following areas and suggest what measures you expect from Government or NGOs in prioritizing their interventions

Areas	Major Problems	Suggestions
Crop Production		
Livestock		
Small-scale enterprises		
Human health		

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Return-Path: <YMossessa@wvi.org>
Subject: Comments
To: crda@telecom.net.et
From: YMossessa@wvi.org
Date: Mon, 12 Nov 2001 12:17:44 +0300
X-MIMETrack: Serialize by Router on WVIO_APTUS/WorldVision(Release 5.0.8 |June 18, 2001) at 11/12/2001 02:09:04 AM

Greetings to Akalewold B,

Thank you for your comments on the executive summary part of food security research. I am expecting the rest as per your promise. Since Beyne is away for field work, could you directly send me the comments by the following address?
I appreciate your cooperation and tolerance for taking your time.

Yadessa_Mossessa@wvi.org

Yours faithfully,

Yadessa M.

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