

9300300

Malawi  
PU-MAR-433

Women in Development ISN:37081  
Agency for International Development  
Room 3243, New State  
Washington, D.C. 20523  
(202) 632-3992

PART I Date of Acquisition \_\_\_\_\_  
Source \_\_\_\_\_

WOMEN FARMERS IN MALAWI:

THEIR CONTRIBUTIONS TO AGRICULTURE AND PARTICIPATION IN DEVELOPMENT PROJECTS

- Dr. A. Spring
- Mr. C. Smith
- Miss F. Kayuni

WOMEN IN AGRICULTURAL DEVELOPMENT PROJECT

USAID

OFFICE OF WOMEN IN DEVELOPMENT

APRIL 28, 1983

## PREFACE

We would like to thank the Department of Agricultural Research, the Planning Division and the Department of Agricultural Development, Ministry of Agriculture, for all their help and encouragement in our study of Women in Agriculture in Malawi. Dr. T. Legg and Mr. A. Standen, provided support in all of our endeavors and in our attempts to bridge the gaps between research and extension. Mr. G. Chirwa, the Chief Planning Officer and Dr. A. Erez of the Planning Division, were instrumental in requesting the Women in Agriculture Development Project prepare a document which detailed women's participation in the smallholder sector and how Malawi's development strategies impacted on them. It is hoped that the information provided here will be useful to them in planning the Fifth Phase of the National Rural Development Programme.

The following people in the Ministry of Agriculture aided in the preparation of this report. From the Department of Agricultural Development, Mrs. Chibwana, (Women's Programme Officer), Mr. J. Mhango (Senior Extension and Training Officer), Mr. T. Madise and Mr. Baily (Credit Officers) provided information on Women's involvement in their programmes. From the Department of Agricultural Research the section heads and the Officer-in-Charge at Chitedze Agricultural Research Station, Dr. HMwandemere, provided logistic support and information on their programmes. The Women in Agricultural Development Project worked closely with the Farming Systems Analysis Section at Chitedze Agricultural Research Station in conducting research in LRDP and Phalombe. We are grateful for Dr. A. Hansen's support and guidance in the Farming Systems Research Surveys that the Project carried out.

We would particularly like to thank the people from the Programme Managers to the field staff in the ADDS for their cooperation with our investigation. Our special thanks is due to staff of LADD and Mr. E. Kanguade, the Programme Manager, for his continual support of Women's Programmes. Others in LADD who particularly helped in this research are Mr. G. Jere (Evaluation Officer), Mr. Mzandu (Project Officer LRDP), and Mr. Sinumbe (Animal Husbandry Section).

The Director, Mr. S. Banda, and the staff of the Agro-Economic Survey (AES) especially Mr. Mchikoma, helped to prepare the data section on labour collected by AES. Others who aided were Mr. Chimponda, Officer-in-Charge of Extension Aids, Mr. Chen (Extension Aids), Mr. F. Mbuka (Principal Colby College/Natural Resources College), Miss J. Evans (Phalombe RDP), Miss M. Kachali, (Assistant Training Officer, MZADD), Mr. B. Moyo, (Project Officer, Phalombe), Mr. E. Malindi (Programme Manager, NADD - formerly of KRADD), and Mr. D. Mwonke (Assistant Programme Manager, LADD - formerly of KRADD). Finally, our appreciation goes to Mrs. Ndachere, Mr. Nyalungwe, and Mrs. M. Gray for all their help in typing this manuscript.

Dr. A. Spring  
Mr. C. Smith  
Miss F. Kayuni  
Chitedze Agricultural Research Station  
Lilongwe, Malawi

PART I. WOMEN FARMERS IN MALAWI, THEIR CONTRIBUTIONS TO  
AGRICULTURE AND PARTICIPATION IN DEVELOPMENT PROJECTS

TABLE OF CONTENTS

Section	Page
PREFACE	
I. WOMEN'S PARTICIPATION IN SMALLHOLDER AGRICULTURE IN MALAWI. . . . .	1
Summary . . . . .	i
A. Fulltime and Parttime Farmers . . . . .	4
B. Female Headed Households (FHHS) in Time Perspective . . . . .	7
C. Comparative Labour Study. . . . .	9
D. Sex Disaggregated Labour Data in Agro-Economic Survey Reports . . . . .	17
E. Studies by the Women in Agricultural Development Project. . . . .	22
1. Phalombe RDP: Married and Unmarried Households . . . . .	22
2. Scheme and Non-Scheme Farmers in Karonga RDP. . . . .	26
3. Cropping Patterns in Lilongwe RDP . . . . .	30
II. RESEARCH ON WOMEN IN AGRICULTURE . . . . .	36
A. Justification for a Research Component on Women in Agriculture Adaptive Research: A Structure for Women in Agriculture.. . . .	37
B. Farming Systems Research and Women Farmers in Malawi. . . . .	38
C. Relevance of Agricultural Station Trials to Women Farmers . . . . .	44
III. INCLUDING WOMEN FARMERS IN RURAL DEVELOPMENT PROJECT PROPOSALS. . . . .	52
A. National Rural Development Programme. . . . .	52
B. The Present Level of Addressing Women Farmers Needs in RDP Progrposals . . . . .	53
C. Guidelines for RDP Proposals: . . . . .	58
Addressing Programmes to Rural Women. . . . .	58
Baseline Data on Project Services . . . . .	59
Development Constraints . . . . .	59
Core Components of RDPs . . . . .	60
IV. PROJECT SERVICES TO RURAL WOMEN . . . . .	65
A. The Present Situation . . . . .	65
General Extension Activities. . . . .	66
Training. . . . .	71
Credit. . . . .	74
B. Implementation of Project Programmes to Rural Women . . . . .	76
Section and Project Programmes in the ADDS. . . . .	77
Reporting Format and Monitoring Procedures. . . . .	78
Annual Work Plans . . . . .	79
ANNEXES	
Labour data on Farming Systems in Malawi from Agro-Economic Surveys. . . . .	Annex 1-1
An Evaluation of Women's Programmes in LADD: How LADD Sections and Projects Can Incorporate More Women Farmers in Their Programmes . . . . .	Annex 2-1
Sex Disaggregated Extension Activities Reporting Formats	

## SECTION I: WOMEN'S PARTICIPATION IN SMALLHOLDER AGRICULTURE IN MALAWI

### Summary

A great number of sources, surveys and interviewing techniques are used in this report to compile information documenting the contribution of women farmers as wives and household heads and as assistants and full time farm managers in the smallholder sector. That women's contribution is questioned and requires documentation is evidence that women farmers are given little recognition. Both Malawians and consultants notice that women are seen in the fields everywhere performing agricultural work. Yet the documents they write fail to mention that women are agriculturalists. When women are mentioned they are "farmers' wives. Emphasis in training for women has been on home economics based on a western model in which men are "bread winners" and women are "bread bakers" rather than farmers.

The evidence presented here documents the following major points.

#### Women as Full-Time, Men as Part-Time Farmers.

1. Sex ratios (the number of men per 1,000 women) of the working population in most areas show that most areas have more women than men.
2. In recent years women have become more important in smallholder agriculture being the full-time farmers on the family farm as men have become part-time or absent farmers on their own farms because of salaried employment elsewhere largely on estates.

#### Female Headed Households (FHHs)

3. The percentage of FHHs in Malawi is 29%. Over one out of four households are FHHs. In 14 of the 35 areas (project or districts) surveyed by the National Sample Survey of Agriculture (NSSA), 33% (one out of three households) are FHHs. This type of households seems to be increasing in Malawi.
4. In some areas FHHs become male headed households (MHHs) and vice versa because husbands leave and return for wage labour, change residences to live with other wives and remarry. Today's married women may be tomorrow's FHHs.
5. Being a FHHs is more likely to be associated with impoverishment, labour constraints, and food deficits. Married women and those on their own do not differ significantly in the number of children they have.

#### Labour Data

6. Women spend as much time on farm work as on domestic activities and they do their domestic activities after working as much as men on farming activities.
7. Agricultural work increases for both men and women with development projects.

8. Women work on cash crops as well as food crops doing substantial amounts of cash crops operations such as tobacco nursery transplanting and cotton spraying which many think are only done by men.

9. Agro-Economic Surveys have provided sex disaggregated labour studies since 1968/69. The data document women's involvement with all types of farming systems and cropping patterns: from mixed cropping subsistence patterns to cash crops of groundnuts, rice, tobacco, cotton, and smallholder coffee and tea.

(a) In subsistence areas women have the responsibility for food crop production and have the greatest labour input.

(b) In a groundnut area surveyed men and women put in similar hours but have somewhat different tasks.

(c) Rice areas are variable. In some places, men are responsible for its production while women work on the other food crops. In other areas, the person responsible for the household (the male female head), is the one who takes care of the rice cash crop.

(d) Tobacco growing is largely a "male crop" in some areas but women and children help in farm operations.

In other areas, the household head (male or female) is responsible for the crop and in male headed households labour on oriental tobacco is distributed evenly between males and females.

(e) In all areas men are in charge of the cotton crop but women contribute significantly to various operations. In some areas the cultivation of the crop would not be possible without mature female labour.

(f) In smallholder coffee and tea production many tasks are shared between the sexes except that men are responsible for pruning.

(g) Where tasks associated with a cash crop becomes particularly onerous, such as cleaning groundnuts or weeding rice, women's participation increases.

#### Constraints and Sex of Household Head

10 Married and unmarried households differ in that the extra male labour aids the household significantly.

(a) Unmarried households cultivate less land and their land is more marginal.

(b) Unmarried households are food deficient and must do piece work labour (ganyu) thereby depriving themselves of garden labour.

- (c) Unmarried households are constrained by labour, especially if they have many young dependents. As a result their cropping systems simplify and they grow fewer crops.
- (d) Distinctions can be made between two types of female headed households. Those who have husbands (or children) who send regular remittances are similar to male headed households in terms of livestock and resources ownership. Those FHHs on their own have fewer livestock and goods, and have less improved housing.
- (e) Women get very little extension services (training, inputs, visits and advice) and their cultural practices reflect this lack of agricultural education (late planting, poor spacing, incorrect fertilizer usage, ignorance of crop protection). The results of this situation are poorer yields and food deficits for the household.
- (f) Women tend to be shy and retiring when it comes to participating in some project services. They have come to believe that agricultural services are intended primarily for men.

#### Scheme and non-scheme farmers

- 11. Unmarried women are active on rainfed and irrigated rice schemes. As scheme farmers they manage their plots the same way as men. They obtain the same yields and extension advice on rice as men. Their production of non-scheme crops may lag behind men's since they get less access to inputs and advice.
  - (a) FHHs and married women participate in all aspects of farming in certain areas including ox-ploughing.
  - (b) FHHs on schemes make farm management decisions in terms of the hiring of labour and use of inputs and credit.
- 12. More women than men tend to be lower resources farmers selling their labour rather than hiring labour. When faced with labour constraints they cultivate less land and simplify their cropping pattern.
- 13. It is difficult to say categorically that all women cultivate less land than all men. Although in some places the average are lower, some women on their own cultivate as much more than men with several wives. For example, the average acreage cultivated by women at Wovwe Rice Scheme is greater than the average acreage cultivated by men at Lufira Rice Scheme.
- 14. Women make good use of credit and rarely default.
- 15. There is a reluctance to give technical advice and credit to women for cotton and hybrid maize on cotton/maize schemes whereas women's contributions to rice schemes are well recognized.

16. Women on their own have family responsibilities (food, shelter, clothing, school fees, etc.) which they must finance from farming.
17. Many women are desirous of learning agricultural information, although they mostly receive home economics training.

A. FULL TIME AND PART TIME FARMERS\*

In the colonial past, women's contribution to Malawi's agricultural production was great because of the large number of men who were working in other countries. The Malawi Population Census of 1966 documented that 52.6% of the Malawian resident population were women. Sex ratios (number of men per 100 women) were particularly low during the main working years (15-44 years of age) as shown by Table 1 (abbreviated from Malawi Population Census 1966 Final Report: viii).

TABLE 1: SEX RATIOS BY AGE AND REGION

Age Group	All Regions	Northern	Central	Southern
All Ages	90.0	85.3	88.3	92.4
15-19	91.4	90.0	93.3	90.4
20-24	76.2	74.5	72.5	79.5
25-29	73.3	70.4	69.5	76.9
30-34	76.6	69.8	77.2	77.7
40-44	81.7	67.1	78.1	87.6

The importance of women farmers did not end with the end of large-scale male emigration to work in other countries. In fact, since independence women have become more important in smallholder agriculture as men have increasingly become involved in wage and salaried employment (largely in estates) within Malawi. Many rural women are unmarried (including those who are widowed, divorced and separated from their husbands) and, therefore, in charge of their own farming. In addition, an analysis of Malawian Government data point out a growth of part-year employment by men on their own holdings. This leaves the wives of these men as the full time farmers, especially since the part of the year that the men are working elsewhere is usually the cropping season. The "predominance of female labour in own holding agriculture has been reinforced" as shown in Table 2 (Kydd and Christiansen 1981:14).

The Malawian Population Census of 1977 calculates that 57% of Malawi's subsistence (smallholder) farmers (alimi, singular mlimi) are women (Final Report Volume II: xiv), but Table 2 takes the analysis further by splitting this into full-year and part-year farmers. Almost 70% of the full-year

\*This section appeared in A. Hansen, "Farming Systems and Women in Malawi" in A. Spring (ed.) Proceedings and Materials from the National Workshop on Women in Agricultural Development, September, 1982 pp. 35-36.

Table II

INDIVIDUALS WORKING ON THEIR OWN HOLDINGS<sup>1</sup>, 1966 TO 1977

EMPLOYMENT GROUP	1966			1977			AVERAGE ANNUAL GROWTH RATES		
	Female ( <sup>'000</sup> )	Male ( <sup>'000</sup> )	Females As % of Employment Group	Female ( <sup>'000</sup> )	Male ( <sup>'000</sup> )	Females As % of Employment Group	Female	Male	Total
Full-year (10-12 months)	1178.5	716.0	62.2	1423.6	631.6	69.3	2.1%	-1.4	0.9
Part-year (1-9 months)	9.3	103.7	8.2	84.6	266.2	24.1	27.8	11.0	11.9
TOTAL	1187.8	819.7	59.2	1508.2	897.8	62.7	2.7	1.0	2.0

SOURCE: Calculated from *Malawi Population Census Final Report, 1966* (Tables 21 and 22) and authors' estimates based on *Malawi Population Census Final Report, 1977*. (Kydd and Christiansen, 1981.a, Tables 2 and 3).

NOTE: 1. This refers to the estimated number of 'economically active' individuals working on their own holding. This does not include employees on peasant farms.

TABLE 3 PRELIMINARY REPORT NSSA 1980/81 - NATIONAL SAMPLE SURVEY OF AGRICULTURE  
HOUSEHOLD CHARACTERISTICS

	% FEMALE HH HEADS	MEAN DE FACTO HH SIZE	BEAN AREA CULTIVATED (HECTARES)	SAMPLE NO HOUSEHOLDS
CHITIPA	13.2	5.1	1.07	100
KARONGA	17.7	4.5	0.88	120
KARONGA ADD	15.8	4.8	0.98	220
RUMPHI-COFFEE	22.7	6.1	0.77	60
HENGA-KASITU	27.7	4.6	1.14	60
HENGA-KASITU EXT	17.1	5.1	1.79	80
RUKURU-KASITU	17.4	4.7	1.57	80
WEST MZIMBA	16.1	4.8	1.72	120
SOUTHWEST MZIMBA	33.1	3.9	1.42	60
NKHATA BAY	24.0	5.4	0.88	120
MZUZU ADD	21.9	4.8	1.39	580
KASUNGU NORTH	12.0	4.8	2.26	220
RUSA	9.3	5.7	2.36	100
NTCHISI	12.0	4.5	2.10	100
DOWA WEST	14.9	5.3	2.04	220
DOWA HILLS	16.1	4.4	1.64	120
MCHINJI SOUTH	16.4	4.7	2.04	180
KASUNGU ADD	14.1	4.9	2.06	940
NKHOTA-KOTA	25.6	5.1	0.71	80
SALIMA NORTH	27.0	4.3	1.01	220
SALIMA SOUTH	30.4	4.1	1.11	200
SALIMA ADD	28.4	4.3	1.02	500
LILONGWE	20.4	4.4	1.72	540
LILONGWE EAST	20.0	4.4	1.16	219
THIWI-LIFIDZI	32.8	4.2	1.36	180
DEOZA HILLS	38.5	4.6	0.99	160
NTCHEU	38.2	4.6	1.08	219
LILONGWE ADD	27.4	4.4	1.38	1318
HANGOCHI	33.2	4.0	0.79	240
NAMWERA	42.3	3.9	0.97	160
BALAKA	42.3	4.3	1.01	220
KAWINGA	31.2	3.9	0.94	260
ZOMBA	36.9	4.0	0.77	480
LIWONBE ADD	36.5	4.0	0.87	1360
SHIRE HIGHLANDS	33.6	4.7	0.75	660
BLANTYRE	37.9	4.8	0.77	220
MWANZA	30.9	4.8	1.27	120
PHALOMBE	34.7	4.3	0.89	259
MULANJE	33.0	4.6	0.67	320
BLANTYRE ADD	34.3	4.6	0.80	1579
CHIKWAWA	23.7	4.4	1.46	240
NSANJE	24.5	4.5	1.18	140
NGASU ADD	24.0	4.4	1.36	380
MALAWI	28.8	4.5	1.16	6877

\* Taken from NSSA 1982 Table 1, page 2.

farmers are women, according to Kydd and Christiansen. The majority of these women farmers are married but many are heads of their households. More than one of every four, (29%) of rural households are headed by women (NSSA 1982). These households include unmarried women and wives whose husbands return home "less frequently than once a month" (NSSA 1980/81 Enumerators' Field Manual for Household Composition). In 14 of the 35 NSSA survey areas (projects and districts), one third or more of the households are headed by women\*\*.

The statistics quoted in Tables 1 and 2 demonstrate the importance of women in Malawi's agricultural production. Women contribute the majority of the labour in smallholder agriculture, and women are the ones making agricultural decisions in many smallholder households.

### B. FEMALE HEADED HOUSEHOLDS (FHHs) IN TIME PERSPECTIVE

A general notion exists that female headed households (FHHs) are stable social entities that change very little with the passing of time. One advantage of a longitudinal study is the ability to measure the change of the household head over time.

Kydd (1982) found that the percentage of female headedness increased from 11% to 28% between the 1968/69 and 1978/79 surveys in Lilongwe Rural Development Project (LRDP). The analysis here concerns households in a longitudinal survey of LRDP carried out by WIADP and the Farming Systems Analysis Section at Chitedze. In 1980/81, 22% of the sample of 267 households were FHHs while in 1981/82 23% were FHHs. This could be assumed to imply that only 1% of the sample has a change in household head during this year.

A more detailed investigation of the stability of female headed households is shown in Table 4. Of the 56 FHHs in 1980/81 12% changed to MHHs in 1981/82. Of the 61 households headed by women in 1981/82, a total of 16% were headed by men during the survey of 1980/81. The fact that one out of eight FHHs acquired a male head in one year's time is proof of the flexibility of this situation. Only 12% of the women in FHHs in 1980/81 were monogamously married (Table 5) and some of their husbands working outside the village returned by the next year. Some of the 26% polygynously\* married FHHs household heads spent more time with that wife in 1981/82 and were counted as the household head there. Some of the 62% of FHHs who were not married in 1980/81 were married by the next year.

The opposite changes also occurred for the 16% of FHHs 1981/82 who were MHHs in 1980/81. Some of the 79% monogamously married male heads left their village for outside employment in 1981/82, leaving their wives to the household head. Some of the 1980/81 MHHs went to live with a second wife because they became polygynously\* married in 1981/82 or already had an existing

---

\*\*Table 3 has been added here.

\*The technical term for recognized marriage to more than one wife is polygyny. Polygamy is the general term for recognized marriage to more than one spouse (husband or wife).

TABLE 4 : CHANGE OF THE SEX OF THE HOUSEHOLD HEAD FROM 1980-81 TO 1981-82

ONE YEAR CHANGE	SURVEY SAMPLES		
	LSLH 1980-81 (n=267)	FHH 1980-81 (n=58)	FHH 1981-82 (n=61)
	% Households		
MHH Change to FHH	4	-	16
FHH Change to MHH	3	12	-
No Change	94	88	84
TOTAL	101	100	100

TABLE 5 : MARITAL STATUS OF HOUSEHOLD HEAD

MARITAL STATUS	SURVEY SAMPLES			
	NSSA (n=520)	LSLH (n=101)	FHH (n=58)	MHH (n=80)
	% Household Heads			
Monogamous Marriage	63	64	12	79
Polygamous Marriage	18	19	26	18
Seperated	4	4	17	1
Divorced	3	5	16	2
Widowed	7	8	29	0
Never Married	1	0	0	0
Other	0	0	0	0
TOTAL %	99	100	100	100

NSSA = National Sample Survey of Agriculture  
 LSLH = Longitudinal Study of Lilongwe Households Sample  
 FHH = Female Headed Household Sample  
 MHH = Male Headed Household Sample

wife. Some of the monogamous marriages in 1980/81 broke up leaving the wife as household head in 1981/82.

The instability of the household head over the years is affected by changes in marital and employment status. The increase in the male wage labour and off-farm activities means that more men will leave their families in the rural areas with women acting as household heads. Some of these men do not return. Changes in marital status will also cause the sex of the household head to fluctuate from male to female to male again. This flux implies that households should not be discouraged from obtaining agricultural services because they are headed by women for a given period of time. Married women will require agricultural services because their husbands may depart or they may become heads of households subsequently.

C. COMPARATIVE LABOUR STUDY

Clark (1975) compared data collected by the early Agro-Economic Surveys which covered 5 sites (Karonga, Mzimba, Thyolo, Lake Chilwa and Ngabu). The sample number of households broken down into MHHs and FHHs wives is as follows:

	<u>MHH</u>	<u>FHH</u>	<u>WIVES</u>	<u>TOTAL HOUSEHOLDS</u>
Karonga	47	2	74	49
Mzimba	39	11	44	50
Thyolo	60	9	51	60
Ngabu	48	1	63	49
Lake Chilwa	28	11	28	39

Table 6 provides information on the ways in which women over 15 years spend their time. The figures suggest that women in general spend as much time in farm work (20%) as in domestic activities (23%). Women in Ngabu spent twice as long on crop work as women in Karonga and Mzimba. Clark notes that this is because Ngabu is a cotton development area and both sexes worked more hours in farm work.

Work done by male heads female head/wives in terms of total hours per annum and per day are compared in Tables 7-9. Women work longer hours per day than men on the family's crops in Karonga, Thyolo, and Lake Chilwa. In Ngabu men and women spend the same amount of time (3.3 hours/day) on the family's crops (Table 9) and this amount is higher than elsewhere. Only in Mzimba do men spend more time than women. Men have more leisure time than women everywhere except at Lake Chilwa where fishing presumably cuts into leisure activities. In Ngabu women do domestic activities after working as much as men on the agricultural ones. The hours per day spent in productive activities shows a variation from 3.9 to 7.0 (Table 10). Women average more hours than men. The figures are highest (7.0) for women in the cotton cash crop area of Ngabu and men at Lake Chilwa because of fishing.

Clark noted that it is widely admitted that Malawian women do alot of garden work, but it is not realized that they do more than men in most places. Even where women's contribution is acknowledged, there is the view that they only work on subsistence crops or if they help with cash crops, it is with harvesting and post-harvest operations. The proportions of work done by men and women on a traditional crop (maize Table 11) and three cash crops (turkish tobacco Table 12; sprayed cotton Table 13, and unsprayed cotton Table 14) are compared. The tables show that women did more total work than men on every crop, although the gap was widest in the case of maize, (women did 54% of the work compared with 25% for men). On cash crops, women did other operations as well as harvesting and grading. Women were involved in nursery planting, weeding, thinning, spraying cotton, curing tobacco, shelling and marketing. A substantial part (39%) of the tobacco nursery planting work in Mzimba (Table 12 ) was done by women. Relatively skilled operations such as cotton spraying were undertaken more frequently by women heads and wives than by male household head (women did 36% of the work versus 32% for the male head, Table 13).

Clark's paper provides excellent comparative data on women's and men's farm work in terms of number of hours and farm operations by type of crop. She argued that women ought to have more opportunity to learn agricultural techniques for food and cash crops and more access to extension services. She concluded by asking if Malawian women received enough agricultural training given their involvement in agricultural production in the country.

ADAPTED FROM BARBARA CLARK, "THE WORK DONE BY RURAL WOMEN IN MALAWI",  
EASTERN AFRICAN JOURNAL OF RURAL DEVELOPMENT, 8:2:60-91 (1975).

Table 6: Occupations of Rural Women in Malawi

	KARONGA		THYOLD		MZIMBA		LAKE CHILWA		NGASU		TOTAL	
	Hrs. per annum	% of total	Hrs. annum	% of total	Hrs. per annum	% of total						
Field and crop work on family holding	65,359	16	64,125	18	43,853	15	42,845	21	114,223	29	330,405	20
Misc. farm work on family hold- ing (1)	7,229	2	5,975	2	6,593	2	33,211	2	14,275	4	37,393	2
Unpaid farm work elsewhere	5,297	1	2,972	1	8,183	3	5,079	3	11,693	x	23,224	1
Other work	2,703	1	3,921	1	6,898	2	6,368	3	6,381	2	26,471	2
Making beer and homocraft	12,973	3	3,597	1	(2)		1,073	1	5,217	1	22,860	1
Domestic activi- ties	89,281	21	96,306	27	77,531	26	41,858	21	82,634	21	387,610	23
Being ill and tending sick	41,801	10	22,872	6	24,012	8	16,301	8	24,481	6	129,467	8
Attending school	7,766	2	3,601	1	3,574	1	911	x	677	x	116,525	1
Social obliga- tion (3)	31,351	7	12,865	4	13,870	5	8,073	4	5,059	1	71,218	4
Recreation and resting	155,763	37	146,068	40	117,446	39	76,256	38	143,268	36	638,801	36
Total	419,523	100	301,960	101	282,285	101	200,285	101	397,908	100	1,683,978	100

x = less than .05 hours per day.

- Notes: 1) Includes very few hours on the care of livestock  
 2) In Mzimba the hours spent making beer and homocrafts were processed together with other kinds of remunerative work.  
 3) Mostly attendance at weddings and funeral.

TABLE 7

A COMPARISON OF THE WORK DONE BY MALE HEADS AND FEMALE HEADS/WIVES IN 49 HOUSEHOLDS IN KARONGA AND THYOLO

	47 MALE HEADS		76 FEMALE HEADS/WIVES		51 MALE HEADS		60 FEMALE HEADS/WIVES	
	Total hrs. per annum	Hours per head/day	Total hrs. per annum	Hrs. per Head/day	Total hrs. per annum	Hours per Head/day	Total hrs. per annum	Hrs. per head/day
Field and crop work on family holding	20,343	1.7	54,223	2.0	36,972	2.1	51,492	2.4
Care of livestock	7,916	0.5	86	x	159	x	4	x
Misc. farm work on family holding	4,158	0.2	6,214	0.2	3,952	0.2	4,577	0.2
Unpaid farm work elsewhere	6,077	0.4	4,221	0.2	1,788	0.1	2,308	0.1
Domestic activities (1)	2,690	0.2	74,560	2.7	31,301	1.7	72,605	3.3
Other work (2)	14,912	0.9	1,850	0.1	29,029	1.6	1,692	0.1
Making beer and handicrafts	556	x	10,954	0.5	5,260	0.3	2,909	0.1
Being ill, standing sick	9,193	3.5	35,406	1.3	9,937	0.5	17,166	0.4
Attending school	625	x	196	x	-	-	117	x
Social obligations (3)	13,461	0.0	27,902	1.0	8,572	0.5	10,006	0.5
Recreation and resting	113,309	6.6	115,427	4.2	92,902	5.0	96,097	4.4
Total	201,242	11.0	331,215	12.2	220,752	12.0	259,053	11.9

x = less than .05 hours per day.

- NOTES :
- (1) Including house building and maintenance.
  - (2) Includes paid work and fishing.
  - (3) Mostly attendance at weddings and funerals.

TABLE 8

A COMPARISON OF THE WORK DONE BY MALE HEADS AND FEMALE HEAD/WIVES IN 49 HOUSEHOLDS IN MZIMBA AND LAKE CHILWA

MZIMBA

LAKE CHILWA

	35 MALE HEADS		5 FEMALE HEADS/WIVES		23 MALE HEADS		39 FEMALE HEADS/WIVES	
	Total Hrs. per annum /annum head/day	Hrs. per head/day	Total Hrs. - annum	Hrs Per Head/day	Total Hrs per annum	Hours per Head per day	Total Hours Per annum	Hrs. per Head per day
Field and crop work on family holding	20,304	2.0	36,102	1.0	25,411	2.5	30,405	2.7
Care of livestock	6,900	0.5	668	x	259	x	5	x
Mins. farm work on family holding	10,451	0.7	5,080	0.2	4,200	0.4	3,123	0.2
Unpaid farm work elsewhere	7,075	0.5	7,435	0.4	11,011	1.1	4,441	0.3
Domestic activities (1)	17,024	1.2	61,100	3.0	14,716	1.4	36,091	2.0
Other work (2)	0,507	0.6	4,666	0.2	11,403	1.1	4,760	0.3
Caring ill and tending sick	0,492	0.6	20,314	1.1	5,192	0.5	065	0.1
Attending school	-	-	637	x	5,492	0.5	14,094	1.0
Social obligations (3)	12,626	0.9	13,765	0.7	-	-	97	0
Recreation and resting	63,107	4.1	01,760	4.0	36,077	3.5	59,315	4.2
Making beer and home-craft	-	-	-	-	5,192	0.5	065	0.1
Total	162,646	11.4	231,615	11.3	121,504	11.0	170,229	11.9

Notes as on other pages

TABLE 9

A COMPARISON OF THE WORK DONE BY MALE HEADS AND FEMALE HEADS/WIVES  
IN 49 HOUSEHOLDS IN NGABU

	49 MALE HEADS		64 FEMALE HEADS/WIVES	
	Total hours per annum	Hours per head per day	Total hours per annum	Hours per head per day
Field and crop work on family holding	57,350	3.3	77,905	3.3
Care of livestock	296	x	1,194	0.1
Misc. farm work on family holding (1)	16,635	0.9	9,550	0.4
Unpaid farm work elsewhere	2,233	0.1	1,202	0.1
Domestic activities	11,322	0.6	64,163	2.7
Other work (2)	9,703	0.6	4,322	0.2
Making beer and handicrafts	2,590	0.1	4,570	0.2
Being ill and tending sick	11,363	0.6	17,307	0.7
Attending school, studying	40	x	353	x
Social obligations (3)	5,030	0.3	3,501	0.1
Recreation and resting	89,752	5.1	91,254	3.9
Total	207,219	11.6	275,401	11.7

TABLE 10  
HOURS PER DAY SPENT IN PRODUCTIVE ACTIVITY

	Male Heads	Female Heads/Wives
Karanga	3.9	5.7
Thyolo	6.0	6.2
Mzimba	5.5	5.6
Lake Chilwa	7.0	6.2
Ngabu	5.6	7.0
Mean	5.6	6.1

x = Less than .05 hours per day

- NOTES: 1) Includes very few hours on the care of livestock  
2) In <sup>1,2</sup>Mzimba the hours spent making beer and handicrafts were processed together with other kinds of remunerative work.  
3) Mostly attendance at weddings and funeral.

TABLE 11

THE PROPORTION OF WORK DONE BY MEN AND WOMEN ON PURE STAND MAIZE  
IN CHAPOMOKA AND MALUKOPO VILLAGES (NGASU DISTRICT)

	PLANTING		WEEDING		HARVESTING		SHELLING		MARKETING		TOTAL	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Men	1,034	32	3,032	21	3,319	27	130	16	373	33	8,696	25
Women	2,925	50	7,200	51	7,323	60	564	66	331	29	18,423	54
Children and hired Labour	1,053	18	3,034	27	1,597	13	152	18	419	37	7,055	21
Total	5,012	100	14,146	99	12,239	100	854	100	11,123	99	34,174	100

TABLE 12

THE PROPORTIONS OF WORK DONE BY MEN AND WOMEN ON TURKISH TOBACCO  
IN THOZI VILLAGE (MZIMBA DISTRICT)

	NURSERY PLANTING		WEEDING		HARVESTING		CURING ETC.		MARKETING		TOTAL	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Men	720	58	8	44	167	24	1,154	36	53	60	2,102	40
Women	487	39	7	39	434	64	1,535	47	25	32	2,490	47
Children and Hired Labour	34	3	3	17	82	12	551	17	17	-	670	13
Total	1,243	100	13	100	683	100	3,240	100	70	100	5,262	100

TABLE 13

PROPORTIONS OF WORK DONE BY MEN AND WOMEN ON NGABU (SPRAYED) COTTON (CHAPOMOKA AND MALIKOPO VILLAGES)

	PLANTING		WEEDING		THINNING		SPRAYING		HARVESTING		GRADING		MARKETING		TOTAL	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Men	1,961	35	5,673	29	1,308	39	1,516	32	5,402	21	10,736	26	1,197	39	20,953	27
Women	2,209	41	6,127	32	1,150	32	1,692	36	10,909	36	17,200	42	706	23	40,241	37
Children & Hired Labour	1,309	25	7,520	39	1,029	29	1,495	32	12,959	43	13,396	32	1,200	39	20,996	36
Total	5,639	101	19,320	100	3,557	100	4,703	100	30,430	100	41,420	100	3,103	100	100,190	100

TABLE 14

PROPORTIONS OF WORK DONE BY MEN AND WOMEN ON KARONGA COTTON CROP (MWAKASANGILE VILLAGE)

	PLANTING		WEEDING		THINNING		HARVESTING		LOADING MARKETING		TOTAL	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Men	260	70	266	94	120	90	242	27	334	33	1,230	46
Women	90	24	17	6	15	10	545	61	592	50	1,259	47
Children and Hired Labour	22	6	-	-	-	-	100	11	90	9	212	8
Total	372	100	283	100	143	100	887	99	2,016	100	2,701	101

#### D. SEX DISAGGREGATED LABOUR DATA IN AGRO-ECONOMIC SURVEY REPORTS\*

Although sex disaggregated data has been collected by the Agro-Economic Survey since 1968/69 little has been done with it. The following is an attempt to synthesize the data in order to have a nation wide picture of women's participation in various cropping systems. Of the 51 Agro-Economic Surveys that have been produced so far, sex disaggregated data of various types are found in 20 of them (numbers 1-9, 11, 15, 18, 19, 21, 22, 25, 26, 31, 33, and 34). These surveys are examined here to ascertain women's roles in Malawi's agricultural production. The following is a summary of the surveys. Fuller descriptions and the tables are found in Annex 1.

The farming systems/cropping patterns involved are subsistence (Masambanjati, Nkhota-kota, Namwera), groundnuts (Nsanje South), rice (Hara, Karonga North, Lake Chilwa), tobacco (Chisasa, Mbawa), cotton (Ngabu, Henga Valley, Kasupe), cotton/tobacco (Swanje Valley), smallholder coffee (Northern Region) and smallholder tea (Mulanje).

##### Subsistence

The most striking aspect of those farmers engaged in subsistence farming was the low male/female ratio. In the areas surveyed, there was little opportunity for wage labour and cash crops were only slightly grown (some rice in Nkhota-kota was produced, for example). Even where men were present, they spent their time on other, non-agricultural activities. Women, therefore, held the responsibility for food crop production in these areas and consequently, had the greatest labour input.

Farmers in Masambanjati practiced intensive intercropping (maize-based intercropped with legumes, bananas, groundnuts, cassava, millet and other fruits). Due to the different degree of complexity of the cropping systems, the labour requirements for the various farm operations varied greatly. The percentage of female headed households (FHHs) was small (15%). Women performed most of the work connected with crop production doing 38% of the field work and 41% of the after harvest work with males and children over 12 years doing 20-28% of this work. The greatest proportion of men's time was spent marketing the produce. The data shows that there are not solely male tasks or female tasks. However, males did more of the land preparation and fertilizing while women did most of the planting, weeding and harvesting.

In Nkhota-kota holding size was small and many men were away. The percentage of FHHs was high (57%). Women did the majority of the field work (56%), after harvest work (75%), and marketing (40%). When men were present they participated primarily in marketing (34%) or field work (27%). Children and hired labour cared for livestock. Cassava, rice and maize were the principal crops grown. Women did over half the work in all categories of rice production and benefitted from small sales. They also managed cassava production. Men did the most work on maize garden preparation (64%), while women planted (63%) and harvested (74%). Very little fertilizing

\*Tables and a synopsis of each AES report containing sex disaggregated data is given in Annex 1.

was done and this was a male task only. With far fewer males present the average even for this area, females assumed most of the agricultural tasks.

Namwera farmers grew maize, maize/pulses and maize/groundnuts on small holding size. Between 30% of the holdings were small in size. The work women did was assumed to count less than men's work and this is reflected in the labour data calculations. Nevertheless, even accounting for the fact women worked 6.0 hours and male heads worked 5.7 hours per day. Most of the agricultural labour was done by hired men and women. The report did not detail the various cropping systems, but males did the more physically demanding tasks while females participated more in harvesting and marketing. Many men also did off-farm agricultural work (mostly on estates).

### Groundnuts

In Nsanje South, there again was a low male/female ratio but for this farming system (Malimba groundnut growers), males' and females' participation in agricultural work was similar in terms of hours. There was a sexual division of labour in so far as tasks undertaken, i.e. males did most of the harvesting; females did the planting, transplanting and marketing. The only crops considered women's province were millet and sorghum.

### Rice

Rice production in Malawi can be irrigated, non-irrigated or both, as in Hara where one crop is grown under rain-fed conditions, the second crop under irrigation. Three areas of rice growing were surveyed: Hara, Karonga North and Lake Chilwa. In Hara and Karonga North, men were the ones responsible for rice production while females took care of the food crops. However, in Karonga North, women put in more hours on the crop. In Hara, labour was a severe constraint to rice production but in Karonga North, the average working day was only 2.7 hours. At Lake Chilwa, rice was grown on the edge of the lacustrine plain. Long hours typified the working day - 6.3 hours for females, 5.8 hours for males. Agricultural production, including rice, depended largely on those people responsible for the household, the male or female head. Both sexes took care of the cash crop and men also helped with the food crops.

At Hara rice is double cropped being rain-fed from December to June and irrigated from July to November. Males did the majority of field work (especially land preparation, seed bed activities, fertilizing and weeding) while females did most of the after harvest work such as threshing and cleaning grain. However, women were also significant in crop activities. For the non-rice crops, cassava production was used as an example for labour distribution. Although hired labour was used to clear the land for planting, women did the majority of other labour (planting, weeding and harvesting). It should be noted that hours for each category of worker were calculated in man equivalents. An hour of work by a woman was only counted as .7 an hour compared to an hour of work by a man which counted as 1.0 hour.

By contrast, in Karonga North women worked longer at agricultural work than men. Males and females spent most of their hours on field work but men were usually responsible for marketing while females are responsible for after harvest work. Women did more work than men on rice, groundnuts, maize and millet. Men did more work than women only on cassava and cotton. In rice women did more weeding, harvesting, threshing and transporting while men clear, plough, plant and market. Women did most of the work on maize other than land clearing, ploughing and tilling. Women did the bulk of the labour on food crops and greatly exceeded the hours spent on rice production (for which they also put in more hours) than men.

In Lake Chilwa, female heads and wives worked slightly longer working days than male heads. About 26% of the households were female headed. Women did most of the cash crop work. For rice men and women participated equally in planting but other tasks were performed to a greater extent by women. Women and the majority of work on maize and cassava as well. The pattern of men being more responsible for the rice cash crop did not hold here since women did the majority of work including marketing. Men helped with the production of food crops.

#### Tobacco

Oriental tobacco growers were studied in two areas - Chisasa and Mbawa. In Chisasa, 3884 hours per acre were spent on tobacco while only 1238 hours were spent in Mbawa. In Chisasa during peak periods women worked as many hours as men on agricultural tasks but men were occupied all year round. Females were in charge of the food crops but these did not occupy many hours. Children in Chisasa were used extensively for some tobacco-related operations and hired labour was also used frequently. In Mbawa, household heads (male or female) were responsible for all crops including tobacco. Children and hired labour were used only slightly.

In Chisasa 57% of the household were FHHs. All the tobacco growing households in the households surveyed were MHHs. Both sexes participate in all crop operations, but men did most of the land clearing (63%), nursery work (59%), and marketing (65%). They also fertilize the crop (49%), harvest (18%), string and cure (25%), and weed (44%). Women did most of the weeding (56%), but also did nursery work (38%), fertilizing (36%), harvesting (24%) and marketing (27%). Children did most of the stringing and curing (50%). Women tended to take care of the food crops which occupy fewer hours than tobacco-nevertheless, women worked longer days than men.

By contrast in Mbawa labour on oriental tobacco was distributed daily evenly between males and females. Men and women did similar amounts of nursery work and marketing. Men did somewhat more on planting and women did more in fertilizing, weeding, harvesting, and curing. Women also did more work on the groundnut, maize and millet gardens.

### Cotton

Ngabu, Henga Valley and Kasupe were the areas where cotton growers were surveyed. In all areas, males were considered to be in charge of the cotton crop, whether it was sprayed or unsprayed. Hired labour was used a great deal for work on sprayed cotton in Ngabu. In Henga Valley and Kasupe there was little utilization of hired labour. Females in both locations did much of the grading. In both locations also, women were responsible for food crop production. Interestingly enough, in Henga Valley, although men were in charge of the cotton crop, cotton production would not have been possible (and is, in fact, constrained) if females had not been available for field work.

In Ngabu women made significant contributions to sprayed and unsprayed cotton. For sprayed cotton female heads did the majority of planting, thinning, spraying, harvesting and grading. Hired male labour did most of the weeding, marketing, and uprooting. In unsprayed cotton plots, male heads did much of the planting and weeding while female heads and wives performed the majority of other tasks. Unlike sprayed cotton, males (heads and hired labour) were responsible for 45% of the time spent grading cotton. Additionally, maize and millet gardens occupied much of women's time.

In Henga Valley women's participation in cotton growing was significant and cotton growers had twice as much available mature female labour for farming needs as non-cotton growers. The majority of men's time on crops was devoted to cotton rather than other crops whereas women apportioned their time among food crops and cotton but spent more time on maize, millet and groundnuts than any other category of worker.

In Kasupe men spent most of their time on the cotton crop, but women participated in all operations to some extent. Women did much more work on the food crops (maize, pulses, sweet potatoes and maize/millet).

## Cotton and Tobacco

Bwanje Valley is a rare farming system for Malawi in that both cotton and tobacco are grown there. Labour data was available only for tobacco and male heads appeared to have the responsibility for production of this crop. Women & children participated in all operations, but not to the same extent as men. Tobacco and cotton growers were male-headed households. The report on Bwanje Valley stated that females were expected to work on the foodcrops.

## Coffee

Coffee is the only cash crop grown in the area where the survey was done and is therefore important to farmers there. The farming systems there could be considered subsistence were it not for the presence of the coffee cash crop. For all agricultural production tasks, there was not a clear division of labour nor were there male and female crops. Both sexes did all operations and worked on all crops. The only exception to this was that nursery work, fertilizing and pruning the coffee were considered to be in the male domain. Women participated somewhat in every operation except pruning.

## Tea

In tea growing areas, pruning of tea was also considered to be a man's job. Other agricultural tasks related to the production were shared equally with all activities being performed by both sexes. Males spent most of their time on the tea crop, females spent most of their time on the food crops, especially maize. Women spent more total time on (1) land clearing and uprooting, (2) planting, transplanting and supplying and as much as men on (1) tilling, ridging, and leveling and (2) harvesting. Men and women spent similar amounts of time on weeding.

## S U M M A R Y

With a variety of farming systems represented, it is truly difficult to make generalizations concerning labour use for all systems. Women seem to always work as many hours (if not more) as men on field operations. In some farming systems, women work in both cash and food crops; in other systems, women work mostly on food crops. Rarely do women have the sole responsibility for a cash crop. However, in some areas, such as Lake Chilwa, the household head, be it male or female, is responsible for agricultural production.

If women raise the food, then men must do other things around the area or elsewhere. This means either migration or cash cropping. The effect of male migration on families is well recognized and the government has made, and is making, efforts to increase the frequency and feasibility of cash cropping in many areas so that men do not have to leave.

When a new crop is introduced into an area, training must occur and the question to be asked is, who receives the training? If the indications given by the reports on coffee and tea production are realistic, it is men who receive the training in pruning, for example. Where tasks associated with a cash crop become particularly onerous, such as cleaning groundnuts or weeding rice, women's participation increases.

#### E. STUDIES BY THE WOMEN IN AGRICULTURAL DEVELOPMENT PROJECT

Selected studies of farming patterns and farmers' attitudes and use of extension services have been carried out by WIADP in each Region using various methods and surveys (see WIADP List of Reports p.35). Some of studies and their findings are reviewed here.

##### 1. Phalombe RDP

Married and unmarried farmers  
Maize Trials farmers  
NSSA data

##### 2. Karonga RDP

Irrigated and rain fed rice scheme farmers  
Cotton and maize scheme farmers  
Off scheme farmers

##### 3. Lilongwe RDP

Cropping patterns of the longitudinal study of households  
Credit, extension and stallfeeder programmes are considered in Section II

#### 1. Phalombe RDP: Married and Unmarried Households

A comparison of married and unmarried households based on data collected by Evans (1981a, b, c), the Evaluation Unit of BLADD (see BLADD reports), Hansen (1982), and WIADP's own studies has been prepared in WIADP Reports No. 19 "Agricultural Constraints Facing Women Farmers in Phalombe Rural Development Project". A synopsis of the report is given here.

Unmarried women cultivate less land which is more marginal in quality than married households according to Evans. Smaller holding size and area cultivated is also noted for FHHS compared with MHHs. The NSSA data shows that some of the FHHS have lower maize yields, most likely because fewer FHHS than MHHs use fertilizer. However, FHHS have higher groundnut yields than MHHs. Unmarried households are food deficient according to Evans and WIADP and the women make up for this by working piece work (ganyu) for others, thereby being labour deficient on their own farms.

Because of the scarcity of land and high population density in Phalombe (127 people per square kilometre), much of the land is intercropped. Gardens contain a staple crop interplanted with relish and some market oriented crops. Households studied planted local maize with cowpeas intercropped or scattered as well as other crops such as pigeon peas, sunflower, pumpkins, green grams, and dolichus; sometimes cassava and sorghum were interplanted as well to sustain the family in case of failure of the maize crop. Evans found little difference between married and unmarried households in terms of cropping patterns. A small percentage (8% married and 7% unmarried) planted maize pure stand. WIADP found that FHHS have all their fields in mixtures with groundnuts being the only crop that is monocropped. MHHS monocrop cassava, groundnuts, tobacco, cotton, sweet potatoes, and green grams. Evans found that unmarried households own fewer livestock, but the NSSA Livestock Study shows that there is a difference between married and unmarried female heads. Married female heads are similar to MHHS in terms of livestock ownership, farm equipment, housing and household items. This is accounted for by husbands sending remittances or obtaining these items before leaving. All studies show that unmarried FHHS have fewer resources than the MHHS and married FHHS.

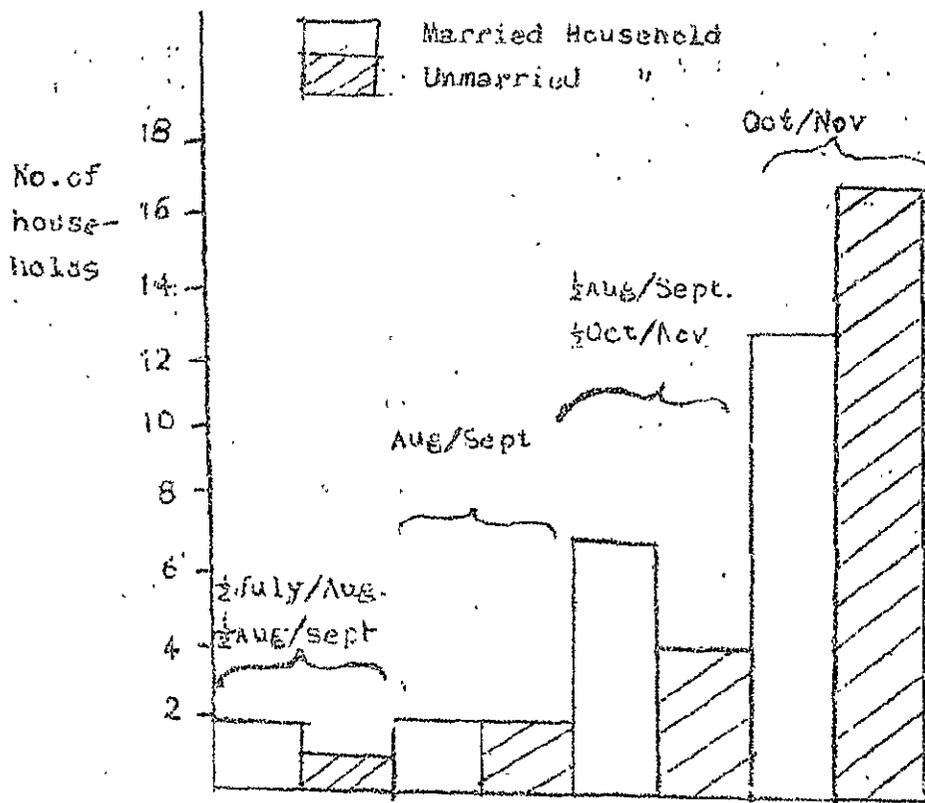
Considering cultural practices, there were differences in time of planting, spacing and weeding in the married and unmarried households, with the unmarried ones planting later, spacing incorrectly and weeding only once (Figures 1 and 2). Women in general made little use of fertilizer and even those who used it, usually applied it incorrectly. WIADP's study confirms that fertilizer use is linked to attendance at agricultural courses, yet few women received agricultural training. Women on their own, whether married or not, make the farm decisions and act as farm managers. Women are constrained by the available labour and the number of dependents. Both young and old women have few dependents while women in the 20-40 year category whether married or unmarried have about the same number of children with them. If there is a husband to do farm work, the family is not likely to be food deficient; however, women without husbands run out of maize early. In Phalombe the duration of maize is correlated with rainfall. In areas of higher rainfall, households have more males and maize (Figure 3). The NSSA data shows that 35% of households are female headed in Phalombe but that the highest number of FHHS (46%) are found in rain deficient areas. It appears that men leave areas with poor agricultural potential (Figure 4). They leave behind wives and children to subsist on these lands, often without inputs and with little agricultural training. All income and expenditure studies show that gifts and remittances, when they occur, are very important for these households.

Women have less education and agricultural training compared to men. Few knew the answers to simple questions on fertilizers, spacing and diseases which WIADP asked them. All studies show that extension contacts to women were also less than for men, (see section on Extension Services in Part 2).

Finally, the division of labour demonstrates that perhaps in the past men were responsible for the heavy work of clearing

Figure 1 \*

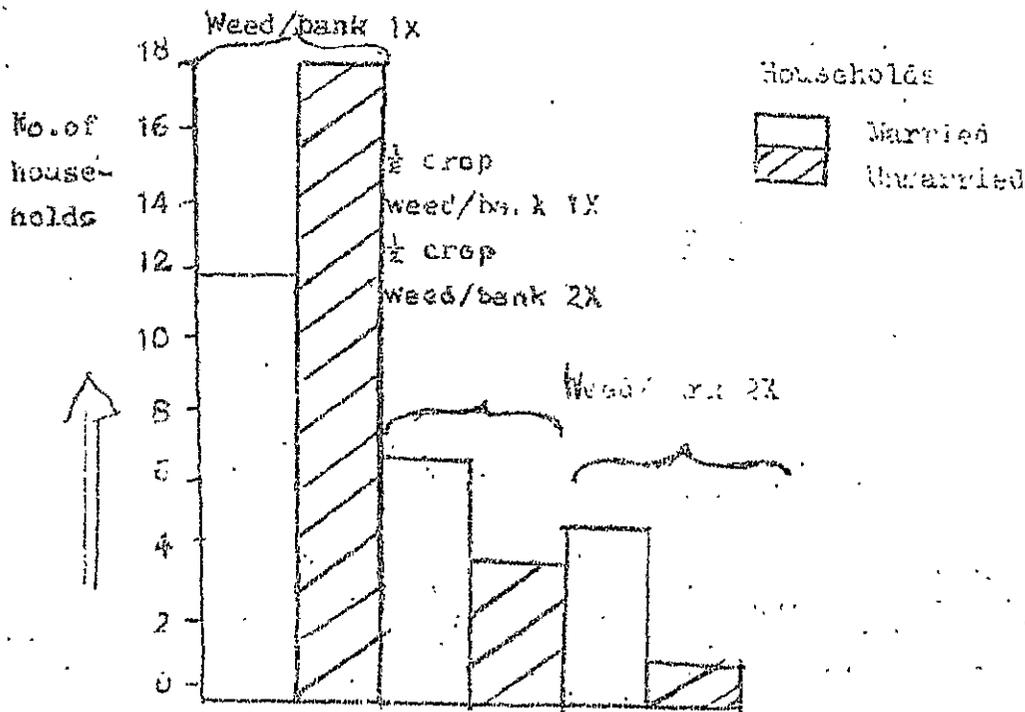
Garden preparation



Times of year when garden preparation takes place

Weeding and Banking

Figure 2 \*\*



Number of times weeding and banking undertaken

\*Taken from Evans 1901b, page 44.

\*\*Taken from Evans 1901b, page 45.

Figure 3 \*

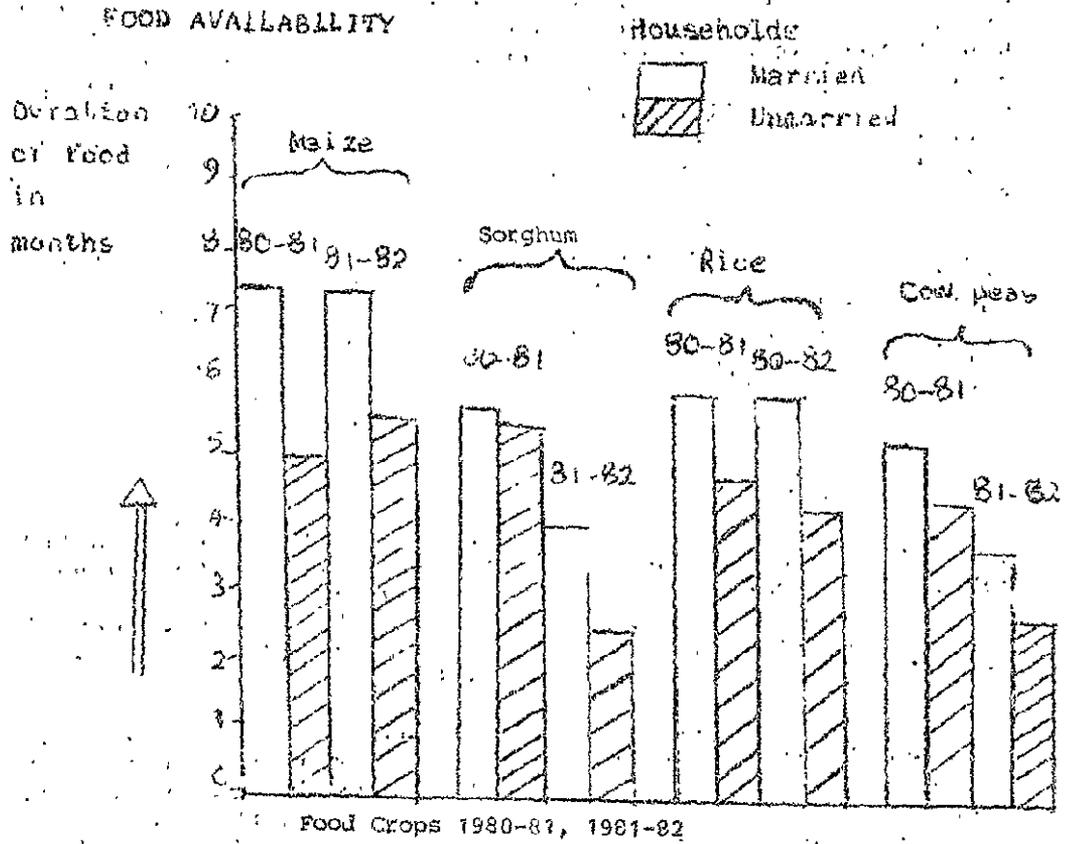
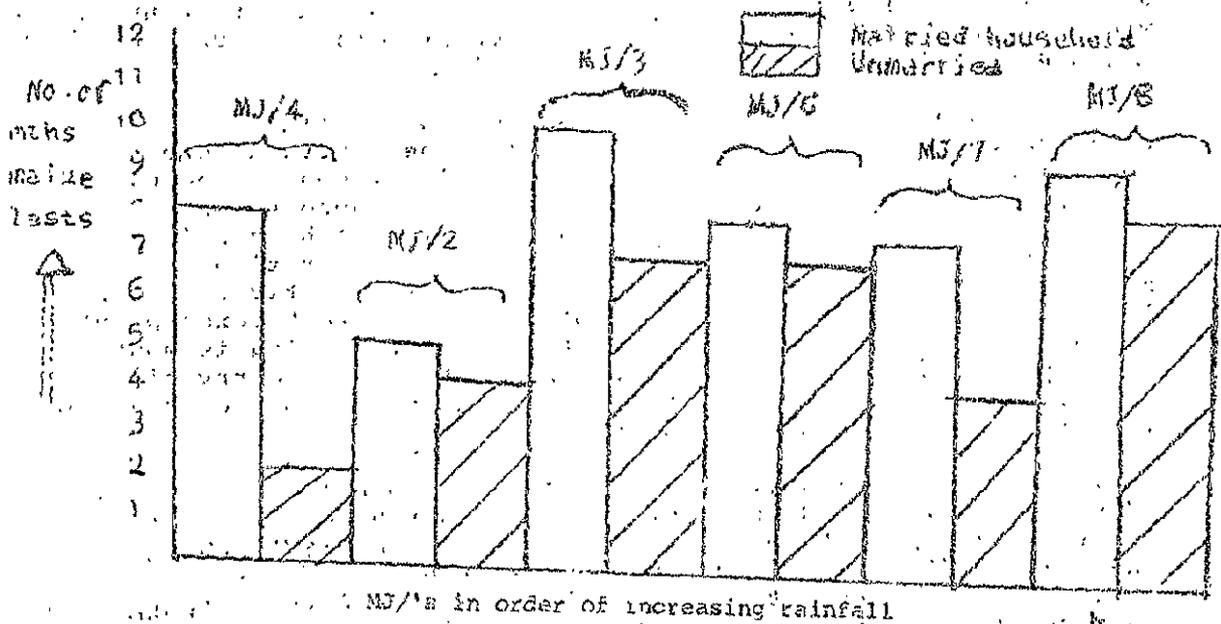


Figure 4 \*\*

Duration of maize in households by stratum (Fig 2)



\*Taken from Evans 1981b, page 50

\*\*Taken from Evans 1981b, page 51

and preparing the land. Now there is very little land being cleared and the sexual division of labour is minimal or non-existent. Men and women do similar operations in married households and women in unmarried households do all the operations. There are, of course various patterns of children helping, especially daughters of unmarried women helping their mothers. When asked about labour participation on various operations, men tend to minimize their wives' labour contributions.

WIADP study considered the maize trial cooperators of the Farming Systems Analysis Section. FSA specially requested that women be selected as trial farmers. The ones who were selected tended to be older and widowed and their yields fell behind the younger and more progressive males selected who had their wives to help them. Nevertheless, the women were able to carry out the trials successfully.

## 2. Scheme and Non-Scheme Farmers in Karonga RDP

Brief diagnostic surveys of farming systems in irrigated and rain-fed rice schemes, maize and cotton schemes, and off-scheme areas were carried out by WIADP (Spring, Kayuni and Smith 1982; Spring 1982). Karonga RDP has a lower percentage of FHH (18%) than the average for Malawi (29%). The main findings of the study are the follows.

Women are significant to production in Karonga and their production contributes to KRADD Project yields. Between 9% and 13% of the farmers producing cash sales of rice and cotton are unmarried women taking credit in their own names. Married women's contributions cannot be exactly specified as they are embedded in total household sales and credit in the husband's name. Women grow cash crops that are sold to ADMARC (Blue Bonnet and Faya rice, and cotton) as well as food crops that are used for home consumption (local varieties of rice, maize, cassava, groundnuts, various beans and pulses, and local vegetable) and local cash sales (maize, cassava and groundnuts). There was no difference in maize yields probably because men get more fertilizers than women (Table 17).

Women are involved in all aspects of farming, even some that are generally associated with men. There were no crop operations that were exclusively the domain of men or women, but there are some operations that are mostly done by one sex. For rice cultivation, ploughing and levelling with oxen is considered men's work but some women do these operations regularly alone or help their husbands or male relatives. When levelling is done by hand, women often do it. Both sexes plant, apply fertilizer and weed. Harvesting and threshing is mostly done by women, but men help at times. Both sexes carry rice back to sheds or villages. Husbands in married families usually market the rice but women also do this.

The general attitude of project personnel is the women do not own cattle and therefore, they do not need information about cattle production. WIADP found that some women own work oxen (Table 15), bulls and cows. These tended to be women on schemes who have bought cattle with money earned there or those getting oxen on credit. Some women own ploughs as well. The number of women who use ox-ploughs either alone or with their husbands is high.

It should be noted that the percentages of women farmers taking cotton credit packages are similar to the percentages of women taking rice credit packages (e.g., Mpata - 9%, Vua - 11%, and Lupembe - 13% versus Wovwe - 9% and Lufira - 12%). Women's cotton acreages are smaller than their rice acreages. Cotton is seen as a man's crop, but in reality men do not grow the crop alone. Women are involved in all operations, but men tend to plough and ridge. In spraying operations, wives bring water and husbands mix the chemicals and spray. However, WIADP found women on their own and those whose husbands or fathers were sick doing the spraying. All family members participate in harvesting and grading (but women may do more of these operations). Men and FHHS sell cotton as credit is mostly in their names.

In terms of hiring labour and making farm management decisions, women on their own and also some married women make decisions as to when and where to plant, cultural practices, and use of improved seed and fertilizer. They also decide about employing labour, hiring machinery, and amounts to sell. One major difference between high and low resource farmers is that high resource farmers hire and manage workers. High resource women farmers do this just as high resource men farmers, although there are fewer women high resource farmers than men. On the other hand, low resource farmers (FHHS off-schemes) may have to sell their labour, thereby reducing labour from their own gardens. More men than women hire ganyu and more women than men do ganyu labour (Table 17).

Some women on their own are constrained by labour. FHHS on schemes tend to cultivate slightly less acreage than MHHS. It should be remembered that FHHS have only one adult whereas MHHS have at least one wife, and therefore more available labour. The amount of land that women on their own cultivate is determined by a number of factors such as household dependents who can help (particularly children and whether or not they attend school), cash to hire ganyu labourer's, and the women's own strength and age. Many women who become widowed or divorced have to grow fewer crops on smaller acreages because they have less land and labour. Some maintain their diversified farming systems and acreage while other diversify and even add new enterprises. It is difficult to say categorically that all women cultivate less land than men (Table 16). One good example from the data is that the average acreage women cultivate at Wovwe Rice Scheme is greater than the average acreage that men cultivate at Lufira Rice Scheme (Table 15). It may be that farmers are constrained in land size at Lufira and that some women have a smaller amount of land than they would like.

Some FHHS on schemes have been taking credit for a long time. There seems to be less of a problem issuing credit packages to women on rice schemes than on cotton and maize schemes. It was surprising that no MH-12 seed or 20:20:0 fertilizer and very little CCA seed were extended to women (see Table on credit in Section II). Some women who grow cotton on their own have to have male relatives obtain the packages for them. Yet all extension personnel, management and farmers themselves agreed that women are very faithful at repaying credit and perhaps default less than men.

Women on their own have more opportunity for gaining cash incomes on rice than on cotton/maize schemes. Although the number of FHH on rice schemes is not large (9-12%), there is the perception by management, extension workers and farmers themselves that women are capable rice growers. On the other hand, even though a similar percentage of cotton growers are women, there is the notion that women do not grow cotton and they are not encouraged to do so. Women seemed to have better access to land and technical information on rice than on cotton schemes.

Women on their own have family responsibilities which they must finance from farming. MHHs and FHHs have responsibilities of the same kind and magnitude in relation to their families (food, shelter, clothing, school fees). Some married women must also take on these responsibilities because their husbands help very little. Both FHHs and MHHs need cash to carry out these tasks and the most common way to obtain cash is from agriculture. Many FHHs interviewed preferred not to remarry so they could use their income to provide good houses and school fees for their children.

A comparison of data from the Karonga NSSA Resources Survey and the farmers interviewed for WIADP's survey showed that FHHs tend to have the same type of household improvements and household items as MHHs although MHHs have more of these resources. There was a general tendency for FHHs in the present survey to have slightly higher percentage than the NSSA sample on some items (tin roofs, latrines and radios), and for MHHs to have them on other items (ploughs, sprayers, glass windows, tables, chairs, beds, radios and bicycles). This probably because scheme farmers are better off than farmers in the random sample who are both on and off schemes.

Extension services and training courses lag in reaching women farmers as compared to men farmers. Males have twice as many extension visits as women (Table 17). Similarly, attendance at DTCs and RTCs was twice as high for males as females. The number of female participants probably is as high as it is because of scheme membership.

Many of the female farmers mentioned a great desire for learning agricultural topics rather than home economics topics. Certainly, cooking and sewing are interesting for those women who have the time and resources but the persistence of home economics courses for women deprives women of needed agricultural production information. Many women would welcome opportunities to learn improved techniques in order to increase their production.

TABLE 15: FARM SIZE AND OXEN OWNERSHIP OF WOMEN FARM MANAGERS IN TWO IRRIGATED RICE SCHEMES IN KRADD, 1980-81.

SCHEME	FARMERS			FARM ACREAGE			OXEN OWNERS			
	TOTAL No.	WOMEN No.	%	MEN	WOMEN	MYP	TOTAL No.	WOMEN No.	%	MEN %
Wowwe (1981)	319**	28	9%	1.23	0.98	1.46	24	3	12%	7%
Lufira(1980)	761	72	9%	0.91	0.72	-	305	12	4%	4%
Lufira(1981)	812	96	12%	not available						

\*Figures collected from Scheme record book

\*\*Of the 319 farmers, 70 are MYPs. If they are subtracted, the women constitute 11% of Scheme farmers. (MYP = Malawi Young Pioneers).

TABLE 16: WOMEN MANAGERS IN FARM ACREAGE CLASSES IN TWO IRRIGATED (DOUBLE CROPPED) RICE SCHEMES IN KRADD (%) 1980/81.

Scheme	.25	.5	.75	1.0	1.25	1.5	2.0-25	Total
Wowwe (1981)			64%	11%	21%		4%	100%
Lufira(1980)	7%	42%	26%	18%	4%		2%	100%

\*Figures tabulated from Scheme record book

TABLE 17: GRAIN YIELDS, LAND CONSTRAINTS, LABOUR HIRED AND EXTENSION CONTACTS FOR WOMEN AND MEN INTERVIEWED IN WIADP KRADD FARMER SURVEY (1982).

	GRAIN YIELDS			LAND CONSTRAINTS	
	Men Bags/acre	Women		Men % able to	Women
Paddy rice	18	18	Cultivated More	41	19
Maize	10	7	Acquire More	83	50

	HIRED GANYU LABOUR			EXTENSION SERVICES	
	Men %	Women		Men %	Women
Hires Labour	83	33	Extension Visits	100	49
Does Labour	17	26	Day Training Centre	61	31
			Residential T. Centre	67	26
			Films	78	69

### 3. Cropping Patterns in Lilongwe RDP

Extensive surveys of farmers in LRDP were carried out by the WIADP and FSA Section. Analyses of dietary patterns and anthropometry, farm planning and management, household composition, status and resources, change and development, migration and work history, maize storage and the like, are still being carried out. A comparison of cropping patterns by sex of household head using NSSA data as well as data from this Longitudinal Survey of Lilongwe Households (LSLH) is considered here. More analysis of LRDP data is given in Section II).

#### Cropping Patterns in LRDP

Households are separated into categories of major cropping patterns and are identified by counting only those crops grown on an area of 0.1 hectares and above. Seven out of 22 patterns are identified as being more common (found in 3% and above of the sampled households). The common patterns were based on five crops (local maize, hybrid maize, Chalimbana groundnuts, dark-fired tobacco and sweet potatoes). Additional cropping patterns also include green beans, mixed beans, pasture and synthetic/composite maize. Table 18 represents the percentage of households producing the seven more common cropping patterns. By far the most frequent enterprise is local maize plus groundnuts, accounting for 41% of the LSLH sample. A greater proportion of FHHs (57%) than MHHs (34%) grows this basic combination of food and cash crops. This supports the hypothesis that families without resident adult males suffer from severe labour shortages and therefore, practise more simplified farming systems.

The basic food/cash combination of local maize and Chalimbana groundnuts is also found in patterns 2,3,4 and 5 which include tobacco, hybrid maize, tobacco plus hybrid maize, and sweet potatoes. No large differences are noted between household types in the above patterns which comprise 19% of FHHs and 30% of MHHs. It is apparent that fewer farms managed by women (10%) than men (25%) have the minor remaining cropping patterns that all contain at least one cash crop. This is also evidence of simpler farming systems by women farm managers. It is apparent in Table 19 that local maize and groundnuts are the most common crops for both household types. Slightly more FHHs (90%) compared to MHHs (82%) grow groundnuts, which may support the traditional opinion of groundnuts being a "women's crop". Table 19 shows that more MHHs (41%) than FHHs (19%) cultivate tobacco. Despite a 22% difference, a fair amount of women farm managers can surmount the problems of tobacco being a labour intensive, tightly controlled "man's crop". Similarly, more MHHs (26%) grow hybrid maize but some (10%) grow sweet potatoes, which is becoming more of a cash crop due to improved transport to town markets. Table 19 provides evidence of a progressive sector of women farm managers who grow the cash crops of tobacco, hybrid maize or sweet potatoes, even though this progressive sector is larger among men farm managers.

The total crop area cultivated by the sampled households for the various cropping patterns is shown in Table 20. This

TABLE 18: HOUSEHOLDS PRODUCING MAJOR CROPPING PATTERNS

CROPPING PATTERN	COMPONENTS	SURVEY SAMPLES			
		NSSA (n=519)	LSLH (n=101)	FHH (n=58)	MHH (n=80)
		% households			
1	Local maize + Groundnuts	36	41	57	34
2	Local Maize + Groundnuts + Tobacco	18	14	10	18
3.	Local Maize + Groundnuts + Hybrid Maize	6	6	3	6
4.	Local Maize + Groundnuts + Tobacco + Hybrid Maize	7	4	3	4
5.	Local Maize + Groundnuts + Sweet Potatoes	3	3	3	2
14.	Local Maize	10	9	12	8
15.	Local Maize + Hybrid Maize	4	3	4	0
-	Other Patterns	15	21	10	25
TOTAL %		99	101	98	101

\*Other patterns less than 3% of households

TABLE 19: NSSA HOUSEHOLDS PRODUCING MAJOR CROPS FROM THE 1980-81 LONGITUDINAL STUDY OF LILONGWE PLAIN, MALAWI.

CROP	SURVEY SAMPLES			
	NSSA (n=519)	LSLH (n=101)	FHH (n=58)	MHH (n=80)
	% Households			
Local Maize	97	95	100	95
Groundnut	84	85	90	82
Tobacco	36	35	19	41
Hybrid Maize	29**	22	10	26
Sweet Potatoes	21	26	14	28
Green Bean	—*	18	10	21
Pasture	—*	2	2	2
Groundbean	—*	10	9	8
Mixed Bean	—*	2	0	2
Synthetic Maize	—*	1	2	1

\*Not tabulated \*\*Includes synthetic maize

NSSA = National Sample Survey of Agriculture  
 LSLH = Longitudinal Study of Lilongwe Households Sample  
 FHH = Female Headed Household Samples  
 MHH = Male Headed Household Samples

TABLE 20: HOLDING SIZE FOR HOUSEHOLDS PRODUCING MAJOR CROPPING PATTERNS

CROPPING PATTERN	COMPONENTS	SURVEY SAMPLES		
		LSHL (n=101)	FHH (n=58)	MHH (n=80)
		Ha. per Household		
1	Local Maize + Groundnuts	1.37	1.13	1.52
2	Local Maize + Groundnuts + Tobacco	2.27	3.28	2.27
3	Local Maize + Groundnuts + Hybrid Maize	2.06	1.90	2.12
4	Local Maize + Groundnuts + Tobacco + Hybrid Maize	2.90	1.75	2.35
5	Local Maize + Groundnuts + Sweet Potatoes	0.95	1.16	0.93
14	Local Maize	0.95	0.75	1.13
15	Local Maize + Hybrid Maize	2.42	-	2.42
-	Other Patterns*	2.03	2.28	2.03
AVERAGE HOLDING SIZE		1.72	1.52	1.84

\*Other Patterns less than 3% of households

TABLE 21: AVERAGE CROP AREA FOR PRODUCING HOUSEHOLDS

CROP	SURVEY SAMPLES			
	LSLH (n=101)	FHH (n=58)	MHH (n=80)	
		Ha./Household		
Local Maize	0.94	0.90	0.97	
Groundnut	0.44	0.42	0.49	
Tobacco	0.43	0.58	0.44	
Hybrid Maize	1.12	1.03	0.96	
Sweet Potatoes	0.10	0.07	0.11	
Green Bean	0.09	0.16	1.00	
Pasture	0.11	0.34	0.11	
Ground Bean	0.03	0.03	0.03	
Mixed Bean	0.08	0.00	0.08	
Synthetic Maize	1.01	0.00	1.01	
TOTAL AREA	173.37	88.96	146.77	
AREA/HOUSEHOLD	1.72	1.53	1.83	

Note: Derived by total area per crop divided by producing households

NSSA = National Sample Survey of Agriculture  
 LSLH = Longitudinal Study of Lilongwe Households Sample  
 FHH = Female Headed Household Sample  
 MHH = Male Headed Household Sample

difference of about 1/3 ha. is also noted for the basic combination of local maize and groundnuts where the average holding size for FHHs is 1.13 ha. and for MHHs is 1.52 ha.

Finally, Table 21 shows the average crop area per household. A similarity is apparent in the hectareage grown by the two household types for local maize, groundnuts, hybrid maize and sweet potatoes. The average area of cash crops cultivated by the progressive sector of female household heads is similar to that of their male counterparts. This supports the idea that women who adopt a farm enterprise practice it similarly to male adopters.

#### REFERENCES

- Blantyre Agricultural Development Division, Evaluation Unit.
- 1981b "Household Composition Survey, 1980/81 Season: Phalombe R.D.P.", Ms. BLADD Evaluation Working Paper 7/81, pp. 1-11.
- 1982a Livestock Survey, Resources Survey, Extension Survey, Crop Storage Survey: Phalombe RDP, 1980/81 Season, BLADD Evaluation Working Paper 1/82, Ms. pp. 1-16.
- 1982b "Farm Practices and Production: Phalombe R.D.P.: 1981", Ms., BLADD Evaluation Working Paper 2/82, pp. 1-30.
- 1982c "Income and Expenditure Survey: Phalombe R.D.P.: 1981", Ms., BLADD Evaluation Working Paper 3/82, pp. 1-9.
- Clark, Barbara  
1975 "The Work Done by Rural Women in Malawi", Eastern African Journal of Rural Development 8:2:80-91.
- Evans, Janis  
1981a "Phalombe Rural Development Project, Women's Programmes: Programmes Plan" mimeo 20pp.
- 1981b "Rural Women's Agricultural Extension Programmes in Phalombe Rural Development Project: Report on Baseline Survey of Phase 1" mimeo 13 pp. July.
- 1981c Condensed version of 1981b mimeo 22pp. August.
- Hansen, Art, Mwango, Emmanuel and Phiri, Benson  
1982 "Farming Systems Research in Phalombe Project, Malawi: Another Approach to Smallholder Research and Development", Paper Presented at the Conference on Development in Malawi, Chancellor College, Zomba. July 12-14. mimeo. pp. 34.

- Kydd, Jonathan  
1982 Measuring Peasant Differentiation for Policy Purposes: A Report on a cluster Analysis Classification of the Population of the Lilongwe Land Development Programme, Malawi for 1970 and 1979. Zomba: Government Print.
- Kydd, Jonathan and Robert Christiansen  
1981 Structural Change in Malawi since Independence: Consequences of a Development Strategy Based on Large Scale Agriculture mimeo .
- NSSA (National Sample Survey of Agriculture)  
1982 "Preliminary Report: National Sample Survey of Agriculture for Customary Land 1980/81 Zomba, Government Printer.
- Spring, Anita  
1982 "Farmer Survey in Karonga: Considering the Role of Women in Agriculture" WIADP. mimeo 6pp. October.
- Spring, Anita, Kayuni, Frieda and Smith, Craig  
1982 "Karonga Farmer Survey", WIADP, mimeo 28 pp. June.
- 1983 "Studies of Agricultural Constraints Facing Women Farmers in Phalombe Rural Development Project. mimeo pp20 April.

WOMEN IN AGRICULTURAL DEVELOPMENT PROJECT

P.O. BOX 158  
LILONGWE, MALAWI

R E P O R T S

No.

1. DR. A. SPRING - Farm Home Assistants and Agricultural Training. September, 1981 (9 pages)
2. " - NSSA Series: KRADD A Preliminary Analysis of 3 Surveys in terms of Male and Female Household Heads. October, 1981 (10 pages).
3. " - Soyabean Production in Unit 2. December, 1981 (6 pages)
4. " - Stall Feeding in LRDP. January, 1982 (8 pages).
5. " - Adapting CIMMYT Farming Systems Survey Guidelines to the Malawian Situation. February, 1982 (4 pages).
6. - Background data on women and Men Farmers in Kawinga and Lake Chilwa, Liwonde Agricultural Development Division March, 1982 (5 pages).
7. MISS F. KAYUNI - Agricultural Reference Course for LADD Female Extension Workers. February, 1982 (10 pages).
8. DR A. SPRING Women in Agricultural Production in Malawi. Address to Extension Workers. April 30, 1982 (5 pages).
9. MR. C. SMITH - Report on Unit 2 Soyabean Trials. April 30 1982 (3 pages)
10. MISS. F. KAYUNI - Female Extension Workers and Agriculture: Training for Women, Addressed to Extension Workers. April 30, 1982 (3 pages).
- 11 MR. C. SMITH - Agronomic Report on Unit 2 Soyabean Trials. May 1982 (7 pages).
12. DR. A. SPRING - Report on Soyabean Farmers in the Thiwi-Lifidzi Project Area. June, 1982 (4 pages).
13. DR. A. SPRING - Karonga Farmer Survey. June 1982 (28 pages).
- MISS. F. KAYINI
- MR. C. SMITH
14. MR. C. SMITH - NSSA Series: Comparisons between Female and Male-Headed Households From the NSSA 1980 -81 Garden Survey of LRDP, MALAWI. October, 1982 (4 pages).
15. DR. A. SPRING -Farmer Survey in Karonga: Considering the Role of Women in Agriculture. October, 1982 (6 pages).
6. MR. C. SMITH - NSSA Series: An Analysis of the Yields from the NSSA Yield Survey in terms of Male and Female-Headed Households. December, 1982 (13 pages).
7. MRS. K. UTTERBACK- Appropriate Technology: Women's Responses to the Hand Operated Chitedze Maize Sheller. (8 pages)
8. DR. A. SPRING - WIADP Project Description. January, 1983 (9 pages).
9. DR. A. SPRING - Studies of Agricultural Constraints Facing Women Farmers in Phalombe Rural Development Project. April, 1983. ( pages).
- MR. C. SMITH
- MISS F. KAYUNI
0. MISS. F. KAYUNI - Farming Systems Research and Women Farmers in Malawi, April, 1983 ( pages).

## SECTION II RESEARCH ON WOMEN IN AGRICULTURE

### A. Justification for a Research Component on Women in Agriculture

Before a problem can be solved the constraints which cause the problem must first be understood. The constraints faced by women farmers are sometimes different than those of their husbands or brothers. To help solve the problems of rural women, research is needed to identify those constraints which affect women more than men.

The variation of women's involvement in agriculture is as diverse as the agro-economic systems found within a given area. When the rural community is analyzed under the broad term of "farmers", the differences between men and women within households and as farm managers will be grouped into an average figure for the entire family. In addition female headed households are an important sector of the rural Malawian economy, ranging from an average of 9% to 42% for the Rural Development Projects in the 1980-81 NSSA. These households are missing the benefits of a resident male as the household head, and therefore sometimes encounter different problems from those households headed by men.

At present there is a component that focuses on women (the Women's Programmes Section) in the Department of Development. Although this section has women as their client group, the main emphasis is extension; they do no research. In fact the primary role of extension personnel is to extend to the farming community recommendations based on research results. In contrast the main effort of agricultural researchers should be to develop methods, technologies or systems which lead to more appropriate and beneficial recommendations. Some extension personnel in the ADDs are skilled in analyzing data which document rural life. However, without experience in research methods, most section heads are likely to be unfamiliar with techniques used in conducting research. Since none of the present Women's Programmes Officer (WPOs) within the ADDs have undergone research training, it is possible to assume they are deficient in the skills necessary to conduct reliable research.

Women's Programmes Officers are heavily occupied with supervising the extension activities of the Farm Home Assistants in the ADDs. WPOs are monitoring the inclusion of women in the services provided by the ADD but this does not identify their constraints. The Evaluation Unit conducts surveys every year which record personal and agricultural characteristics of selected rural families. Other sections collect information pertaining to their special field of interest, but not on the constraints of women farmers.

Scientists in the Department of Agricultural Research also concentrate on specialized subject matters. Most sections deal with biological and physical factors, and the constraints of farmers are seen from the viewpoint of the speciality.

For example, if there is no agronomist to deal with minor legumes, research on these crops will not be carried out even though they are important in the farming enterprises in Malawi.

Similarly, without qualified personnel advocating the speciality of constraints facing women (who are the major agricultural labourers and crop processors in the smallholder sector), no research will be done. The investment in women in agriculture component is minor compared with the total DAR budget and could be important in directing the biological and social scientists to important factors.

The information below on how agricultural research station trials should be dealing with the problems of women farmers demonstrates that without research on women, it would be difficult to advise the section heads about which trials to carry out. And without a section of the research community studying the problem intensively, the commodity section heads would not be able to realize the problem on their own. There are suggestions for trials (or if the trials have already been carried out, then the commodity programmes need to get the information out to the extension staff), that would directly impact on women in order to aid them in solving problems concerning labour constraints, processability, storage, time of planting, crop protection, soil fertility and farm operations by machinery. Many commodities are affected, but examples are given for maize groundnuts, fruits, vegetable and rice.

#### B. Adaptive Research: A Structure for Women in Agriculture

Adaptive Research teams are anticipated for each of the eight ADDs under the proposed "Master Plan" for the reorganization of the Department of Agricultural Research. Women in agriculture specialists should complement the efforts of the adaptive research teams by focusing attention on the recommendation domains of women farmers, as they exist or in pointing out how women fit into existing domains.

A Women in Agriculture scientist should be included during diagnostic surveys by the adaptive research team to alert the team to differences in the farming practices of men and women. Based on these differences this person could provide input to help design the on-farm trials which would be implemented in the following growing season. During formation of extension recommendations based on adaptive research the interests of women farmers should be supported by a Women in Agriculture specialists.

Within the Adaptive Research Component a subsection is needed to specialize on the constraints of women farmers. An agronomist is needed to assist the Women in Agricultural Development specialist in collecting and analyzing data. A permanent structure is required to institutionalize research on Women in Agriculture. Without researchers employed for this purpose, investigations on the constraints of women will not be carried out and the data will be incomplete.

The section of farming systems research (FSR) demonstrates that without researchers who are specifically concerned with women, FSR surveys and trials may by-pass women in these endeavors.

## B. FARMING SYSTEMS RESEARCH AND WOMEN FARMERS IN MALAWI

FRIEDA KAYUNI

"Farming Systems Research (FSR) is a generic term used to refer to any type of research which views the farm in a holistic manner" (Dillon 1978:59) "A farming system(FS) on other hand is the totality of production and consumption decision of the farm household including the choice of crops, livestock and off-farm enterprises and food consumed by the household" (Byerlee et al. 1980:9).

The aim of a FSR programme is to help the research department provide research recommendations that will help the extension service address small farmers priorities" (Hansen 1981:2). FSR has 4 stages: (1) the diagnostic stage where the actual farming system is examined in the context of the total environment to identify constraints farmers face and to ascertain the potential flexibility in the farming system in terms of timing, slack resources etc; (2) the design of alternative technologies stage where a range of strategies are identified that are thought to be relevant in dealing with the constraints delineated in the diagnostic stage; (3) the testing stage; a few promising strategies arising from the design stage are examined and evaluated under farm conditions to ascertain their suitability for producing desirable and acceptable changes in the existing FS. The strategies identified and screened during the design and testing stage are implemented.

In Malawi, diagnostic farming systems survey have been conducted by the Farming Systems Analysis (FSA) section of Chitedze Research Station from 1981-83 in Lilongwe Rural Development Project (LRDP) and Ntcheu in the Central Region, Phalombe and Kawinga Rural Development Projects (PRDP, KRDP) in the Southern Region, Chitipa Rural Development Project (CRDP) in the Northern Region and assisted in surveying the Balaka area in the South. Research trials were designed for Lilongwe and Phalombe RDPs, Liwonde Agricultural Development Division (LWADD) was assisted in designing its own trials. The Women in Agricultural Development Project (WIADP) carried out farming systems surveys in Phalombe RDP, Lilongwe RDP and Karonga RDP in 1982 and assisted the FSA section and LWADD in their farming systems surveys. Dr. M. Collinson of the Eastern Africa office of the International Maize and Wheat Improvement Centre (CIMMYT) conducted a diagnostic survey of Ntcheu RDP in 1980. Below is a short description of the involvement of women in Farming Systems Surveys which have been done in Malawi.

### DIAGNOSTIC SURVEY WORK IN NTCHOU RDP.

Collinson (1980), LADD and the Agro-Economic Survey staff carried out a diagnostic survey in EPA 2, 4, 7 and 8 in order to evaluate the research and development opportunities based on the identification of the situations and problems of Ntcheu farmers. No mention was made on the findings between male and female farmers or male and female-headed households (MHHS, FHHS)

even though Ntcheu has 38% of its household headed by women (NSSA 1982). The findings followed the detailed CIMMYT guidelines, that is, a description of the local farming systems, food supply and preferences, cropping calendar, cash sources and uses, crop husbandry, resources, plus constraints and hazards faced by farmers.

#### FARMING SYSTEMS SURVEY IN KAWINGA PROJECT OF LWADD

This survey of Kawinga Plain as reported by Hansen (1982) was done by the FSA Section from Chitedze Research Station and staff from LWADD. The objective of the survey was to make recommendations for the project action. According to the description of the five delineated farming systems, some female headed households were involved or included in the survey, hence their problems and needs had been taken into consideration when making the recommendations. However, in the trials that followed the survey there were no female coöperators. In FS-1, the proportion of female headedness was higher than in the project as a whole (35% of Kawinga's households are headed by women - NSSA 1982). Few capital resources were used in agriculture other than the basics: land, hoes and home-grown seeds. FS-2 was very similar to FS-1 but sulphate of ammonia fertilizer (1-2 bags) was being purchased every year for local maize; consequently the households had enough maize for food. FS-3 was characterised by high capital/credit inputs. The households were usually headed by men who often had political positions; more formal education more cosmopolitan experience and crafts or trades that provided good non-agricultural incomes. FS-4 was similar to FS-1 and FS-2 in having low resources and few capital inputs; but a high proportion of their land was dambo. There might have been a high proportion of female headed households in the dambo/lake-shore area as a result of male emigration but it needs to be verified by census/evaluation section. The environment promotes rice cultivation and also opportunities for fishing. Therefore the recommendations made for FS-1 and FS-2 would benefit many of the female farmers (FHHs).

#### WOMEN'S PARTICIPATION IN FARMING SYSTEMS SURVEY IN KAWINGA RDP.

WIADP staff participated in a farming systems research survey of the Kawinga plain in February 1982. As a result of their participation, women farmers were involved in the interviews and the FS-identified above mention them. Women in the area were involved in a diversity of farming practices ranging from intercropping of maize and dry-land rice to rainfed schemes, maize and tobacco.

#### FSR IN PHALOMBE RDP OF BLANTYRE AGRICULTURAL DEVELOPMENT DIVISION

##### (BLADD)

According to NSSA data 35% of the rural households in Phalombe RDP are headed by women, as compared with 28% for Malawi as a whole. These women do most of the farm operations and decision-making, hence playing a significant role to help accomplish the national agriculture policy of increasing agricultural production. This

is the same with the women in MHH, who participate in all garden operations and marketing activities.

According to Hansen et. al. (1982), the FSR started with the diagnostic survey done by FSA section, Chitedze Research Station and BLADD staff. The purpose of the rapid diagnostic survey was to quickly form a synthesis of the most important relationships among resources, constraints and enterprises and to define the highest priority targets for action by research and development staff. There was no mention of special women's and men's agricultural production needs in the findings. According to the needs and problems identified by WIADP staff in the same area, some recommendations from the rapid diagnostic survey addressed women's agricultural problems and needs especially for FHHs e.g., a recommendation was made to provide credit package for holding of less than 0.4 ha. Some female cooperators (divorced, widowed and married) were included in the maize trials that followed the survey and therefore, some of the women's production problems and potentials were considered.

#### DIAGNOSTIC SURVEY ON MAIZE TRIAL FARMERS AND THEIR SPOUSES IN PHALOMBE RDP, (BLADD)

WIADP studied the farming systems and labour participation for the farmers who participated in the 1981/82 maize trials set up by the FSA section of Chitedze Research Station. The objectives of the survey were to find out: (a) farming systems of the trial farmers; (b) whether or not there were farming systems differences between MHHs and FHHs and how their resources and agricultural knowledge related to the farming systems; (c) intra-household differences in terms of labour division and (d) farming problems of males and females. This survey was carried out in addition to the one done by the FSA section.

#### FARMING SYSTEMS SURVEY OF BULAMBIA PLAINS IN CHITIPA (KARONGA ADD.)

The Survey was done in February and June 1981 by Hansen and some KRAFF staff. The survey followed the CIMMYT's guidelines but there was no specific focus on women farmers. The information was collected on "farmers".

#### FARMING SYSTEMS SURVEYS IN KARONGA (KRDP) OF KRADD

A farming system survey was carried out in several areas of the KRADD in June 1982 by WIADP in cooperation with KRADD management staff. These areas were irrigated and rainfed rice schemes, cotton and maize schemes and off-scheme areas. The objectives were (a) to determine general patterns of farming systems and women's participation in these systems; (b) to study the diversity of women in terms of crops grown, availability of resources and labour, and access to extension services and (c) to compare female and male household heads in terms of production and labour requirements and access to agricultural services. Therefore, the findings and recommendations were made which specifically focused on women farmers and crops grown.

## FARMERS' SURVEY OF STALL FEEDERS IN LRDP OF LADD

WIADP in coordination with extension personnel in the Animal Husbandry Section of LADD interviewed men and women farmers who did stall feeding of steers using crop residues from October to December 1981. The study looked at sex differences in recruitment, operations, remunerations and the fit of the enterprise into the farming system.

## FARMING SYSTEMS RESEARCH IN LRDP OF LADD

The FS survey was done in LRDP in 1981 by a team led by Hansen. No mention was made of the number of men and women farmers interviewed and the general term "farmer" was used. Therefore it is difficult to know whether the findings and recommendations also covered women. The on-farm research trials on the response of local maize to fertilizer in LRDP might or might not have included female cooperators but there is no mention of male and female farmers involved in the trials.

## SOYABEAN RESEARCH IN LRDP AND THIWI-LIFIDZI PROJECT OF LADD

Spring (1983) reported that in the 1981/82 cropping season, WIADP trained women farmers in soyabean agronomy in LRDP and conducted farmer-managed demonstrations. This programme came about through the project's interest in extension training for women. In one unit of LRDP women were taught soyabean cookery but not soyabean agronomy. The project studied how female soyabean growers followed the recommendations on soyabean agronomy as well as measuring their yields. Farmers growing soyabeans in the Thiwi-Lifidzi project area were interviewed to discover their experience with the crop. As a result of the interviews and demonstrations, a technical problem concerning the method of inoculating the seed was identified. As a result of this problem, on-farm, farmer-managed trials have been set up to compare three methods of soyabean inoculation this growing season (1982/83). The treatments are (1) seed without inoculation; (2) inoculum mixed with seed and (3) inoculum mixed with sand and applied in the furrow.

The soyabean programme is intended to point out that (a) home economics training is not sufficient for women farmers who also need agronomic information; (b) research station recommendations may present difficulties under smallholder condition; (c) women farmers should be included in on-farm farmer-managed trials; and (d) research and extension need to relate to smallholder problems.

## JUSTIFICATION FOR INCLUDING RURAL WOMEN IN FSR PROGRAMME

Rural women are a heterogeneous group in terms of their agricultural production and resources (labour, capital and land). There are low, medium and high resources women farmers. There are women who are farm managers on their own; while others work with their husbands.

The low-resource farmers do not have enough land, labour and capital. The medium-resource farmers are ones with an average amount of land, capital and labour while high-resource farmers are those with more land, labour and capital. It requires farming systems research to identify the different categories of women and men and hence make recommendations which can help to increase their production. The women in different categories should also be included in the on-farm farmer-managed trials so as to assess their performance, production levels and further analyse their farming systems. The women and men in different categories could form different recommendation domains.

So far the FSR programme has not made special focus on women farmers in spite of the work women do in agricultural production. The exception has been the surveys in which WIADP has been involved. Women have been included in farming system surveys by chance and the information collected has not been disaggregated by sex. The findings reported, and recommendations made, have focused on farmers in general. It is difficult in this case to know whether women's special needs have also been taken into consideration or addressed. More men than women have been involved in farming systems programmes e.g., in LRDP, Phalombe RDP and Kawinga RDP surveys and trials. The roles women play in agricultural production also justify their inclusion in the FSR programme. If FSR aims to help in the increase of agricultural production, there is no way this objective can be achieved if the women who do 50%-70% of agricultural operations are left out of FSR. The technologies developed need to be usable by the specific target group of "women", as contrasted to the general target of "farmers". Suggestions or recommendations which are made to policy makers and programme planners need to help female farmers, especially with high number of FHHs due to the deaths, divorces and the emigration to work by husbands. Since FSR also acts as link between farmers and research stations, the inclusion of women in FSR programme would enable the women's production problems to be looked into, or worked on by technical research staff, hence facilitating appropriate research or appropriate technology development. As an example, changes that could be made in research methods in order to increase benefits to low resource women farmers are discussed by Smith below.

#### RECOMMENDATIONS

1. To begin with, Adaptive Research should be done in 3 ADDs, one in each of the 3 regions, Northern, Central and Southern. At national level it is difficult to do Adaptive Research in all ADDs because of administration and staffing problems.
2. The Adaptive Research should be carried out according to its two main components.
  - (a) Diagnostic stage
    - (i) assembling background information
    - (ii) informal/Exploratory Survey
    - (iii) formal survey

(b) On-farm, farmer managed trials.

So far the Farming Systems Analysis Section, Chitedze ARS has been doing the assembling of background information, informal survey and on-farm, farmer managed trials.

3. The surveys and on-farm farmer-managed trials should include both men and women. The women should be in both married and unmarried households.
4. The reports on the farmer surveys and on-farm trails should point out the findings of both sexes.
5. The Women's Programmes Officer/AWPO in the ADDs should also participate in the Surveys and monitor that women farmers are fairly represented in the surveys and trials.
6. The on going on-farm trials which are conducted by the ADDs under the Research and Trials/Crops Section should also include both men and women in equal numbers and findings should be reported by sex of farmers.

#### REFERENCES

- Byerlee, Derek, Michael Collinson, et.al.  
1980 "Planning technologies appropriate to farmers: Concepts and Procedures" CIMMYT: Mexico pp.71.
- Collinson, Micheal  
1980 "Evaluation of Research and Development Opportunities from Identification of Ntcheu Farmers' Situation and Problems. Diagnostic Survey Work - Ntcheu NRDP Area", Malawi. pp.11.
- Dillon, John, Donald Plucknett, Guys, Vallaeys, et.al.  
1978 "Proceedings of the Workshop on Farming Systems Research", Nairobi, May 29-31, pp.29 Washington DC. USA.  
1980 "Farming Systems Research at the International Agricultural Research Centres. Analysis by the TAC Review Team of Farming Systems Research at CIAT, IITA, ICRISAT and IRRI", pp.66.
- Hansen, Art.  
1982 "Kawinga Project Farming Systems Report", USAID/UF Agricultural Research Project, Lilongwe, Malawi. pp.23.
- Hansen, Art, Emmanuel, Mwango, and Benson Phiri  
1982 "Farming Systems Research in Phalombe Project, Malawi: Another Approach to Smallholder Research and Development" Paper presented at the 12-14 July 1982 Conference on Development in Malawi in 1980s, Chancellor College, Zomba, Malawi, pp.34.
- Spring, Anita  
1983 "Women in Agricultural Development Project USAID/University of Florida" Lilongwe, Malawi. pp. 9

## C. RELEVANCE OF AGRICULTURAL STATION TRIALS TO WOMEN FARMERS

Craig Smith

The following is based on activities of various sections at Chitedze Agricultural Research Station (A.R.S.) near Lilongwe\*. These research activities have been examined from the context of relevance to female farmers, particularly those with limited financial and labour resources. Advice has been included which suggests brief changes in research methods to increase benefits to low-resource women farmers. Other research stations which focus on different crops no doubt have similar patterns of research activities. As such, the work done at Chitedze can be reviewed as typical of other agriculture stations within the Department of Research (DAR) of the Ministry of Agriculture (MOA).

### GROUNDNUT AGRONOMY SECTION

The section is conducting a trial concerning the time of planting, which utilizes several varieties of groundnuts. It is fairly well accepted that early planting will generally increase yields because of more certain maturity before the cessation of the rainy season. Smallholder farmers in Malawi often are restricted from early planting all crops because of an urgency to prepare and plant other fields. This is particularly true for women farmers managing groundnut gardens who must assist their husbands in preparing other fields, thereby delaying their groundnut planting dates. One goal of the time of planting trials that is consistent with many women farmers' needs is to identify groundnut varieties which yield well when planted late.

One experiment tested yield responses to the type of ridge, variety and population. The one treatment of flat, broad beds is dependent on the use of oxen-drawn implements. Research on flat beds holds promise for smallholders only if the use of oxen-drawn implements increases. According to the 1980-81 NSSA of Lilongwe RDP, only about 4% of the households are likely to possess a plough or ridger. Therefore, a technique such as flat beds is not likely to be of immediate advantage to most FHHs since it depends on ox-drawn implements.

A more relevant experiment for women smallholder farmers would be to test alternate ways of increasing plant population and ground cover. Many farmers are not able to plant the high plant populations desired because of a shortage of seed at planting time. Experiments attempting to maximize the amount of seed available would benefit many women farmers facing seed shortages. The Groundnut Agronomist mentioned it was possible for farmers to hoe an additional ridge between the normally spaced ridges (90 to 110cm) to give ridges spaced 60 cm apart. Such narrow rows would permit groundnuts to achieve better ground cover, reducing the incidence of rosette. Maize must be grown the following year if 60 cm wide ridges are to be adopted by smallholders because narrow ridges are more labour intensive to make by hoe. Both maize and groundnut agronomy should coordinate with such on-farm trials to test this rotation on 60 cm wide ridges.

\*This description focuses on the activities highlighted at the Chitedze Agricultural Research Station field day on 23 March 1983 and resulting interviews with section heads. They are viewed in the context of general knowledge gained as an agronomist working with the Women in Agricultural Development Project based at Chitedze Agricultural Research Station.

Groundnut research particularly relevant to women farmers could involve trials on how to decrease the labour required for planting, thereby increasing chances of early planting. An example would be a trial to study planting groundnuts on ridges used the previous year for maize. Trials which measure the labour input on soil preparation could compare several methods of producing ridges, including partial preparation of soil the previous growing season.

#### PLANT PATHOLOGY SECTION

A major task of this section is to concentrate on the successful application of fungicides to control diseases in groundnuts. Of the 11 trials described, 6 deal with fungicide use on groundnuts. Although the section considers fungicides a short term solution much of this research is not a solution for most women farmers because fungicides are only feasible for higher income farmers' achieving high groundnut yields.

Of the 519 households sampled in the 1980-81 NSSA of Lilongwe RDP, 0% used a fungicide. The majority of smallholder farmers, including women farmers, cannot consider the use of fungicides due to constraints of chemicals, equipment, water, and labour. The gross margins are positive for high groundnut yields although this budget does not include a cost for labour. Credit for fungicide packages would increase the relevance of fungicide trials to women farmers.

Instead of burdening the pathologist with groundnut fungicide trials this section might provide more benefits to female farmers by increasing advisory services to other agricultural personnel. This includes evaluating disease resistance and incidence within the field trials of as many researchers as possible. This assistance to researchers should include outlying research stations that do not have a Pathologist. Extension personnel and farmers presently send infected plants for disease identification via a technician. The pathologist would visit scattered extension centres to inspect fields for disease incidence if transport money was available. This section should travel with other sections which make field trips so that disease inspections can be possible. An increase in staff time and expenses on advisory services would necessitate a decrease in the time and money spent on fungicide trials.

#### GROUNDNUT BREEDING SECTION AND ICRISAT

These two research components are both concerned with the breeding of groundnuts, especially disease resistance, while maintaining high yield and quality. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) has introduced over 2,000 new groundnut lines and breeding populations into Malawi with an emphasis towards the major regional disease problems of rosette and early leafspot. Staff from the Groundnut Breeding Section regularly inspect the ICRISAT plant materials for incorporation into the Malawi programme. Unlike some agronomic and pathological innovations, improved groundnut varieties can be introduced into the farming systems of most women farmers with no change in equipment, cash flow or labour scheduling.

Because the benefits of such breeding research are not restricted to progressive farmers, a new groundnut variety is very relevant to the class of low-resource farmers which include most female headed farm enterprises.

Plant material which has promising resistance to early leafspot has been introduced with the CIMMYT material. Groundnut cultivars resistant to early leafspot would eliminate the need for the fungicides tested by the plant pathology section. A reduction in rosette is found in the agronomic practices of early planting and close spacing. The release of a rosette-resistant variety would help women farmers who plant late and with low populations. The present rosette-resistant lines need to incorporate the trait of large seed size before being released as varieties.

#### LIVESTOCK/PASTURE SECTION

The work of this section will be of greatest benefit to the estate and progressive farmer sectors of agriculture which supply urban markets with milk and high-grade beef. The section is proud of its replicated grazing trial which quantifies the live-weight gain from cattle fenced within the replicated pasture. Such research is not applicable to most female farmers because establishing an improved pasture with rotational grazing would require extensive fencing and would exclude the field from maize producing. One relevant research topic is to improve low-cost methods of fencing, such as living hedges of thorny or spiked plants. More efficient cultivars and production techniques for the Agave spp. 'khonje' is an example.

An improved, fenced pasture is often a prerequisite for smallholder dairy production, and for such progressive farmers this research on improved pasture and supplemental feeding is applicable. The pasture agronomist feels production of legumes and grass hay for stall-fed dairy cows is relevant because most homes are clustered along the river systems far from the fields available for improved pastures. As a result feed must be carried to the stalls near the village. Women are heavily involved in supplying food, such as legume and grass hay, to stall-fed cattle and would directly benefit from concentrations of high quality feed.

The section has recently initiated a research effort aimed at improving smallholder sheep and poultry production. For example, based on the 1980-81 NSSA, about 70% of women farmers in Phalombe RDP owned chickens whereas about 14% owned cattle. An increase in research on poultry is of greater benefit to more smallholder farmers than research on cattle production.

The raising of stall-fed rabbits and guinea pigs is harmonious to the lifestyle of many women farmers who spend much time at the household. The pasture agronomist feels that Malawi farmers will readily consume these domesticated animals since wild rabbits and rodents are presently hunted for food.

#### GENERAL AGRONOMY: GRAIN LEGUMES AND MAIZE

These agronomists are coordinating on trials which examine maize intercropped with food legumes. Intercropping trials are relevant to women farmers since most legumes in

Malawi are grown mixed with another major food crop such as maize, sorghum or cassava. Women are largely responsible within the family structure for providing relish crops such as the bean and groundnut intercrops. Intercropping trials on an agricultural research station is a reversal of the trend in previous years in which pure-stand maize was shown to be higher yielding and therefore recommended to small holders by researchers. Many farmers who took maize credit packages were obliged to follow extension recommendations, which include omitting legume intercrops from the maize.

Maize Agronomy is conducting a trial to determine critical periods of weeding for maximum grain yields. Such a trial will not help change the labour scheduling which forces many female farmers to prepare the soil for planting other fields instead of weeding maize planted a few weeks earlier. One anticipated trial will investigate planting maize on ridges used the previous year. This line of reasoning is very relevant to labour constrained women farmers because a method is being sought to reduce the labour input needed to plant the maize crop at the beginning of the rainy season. A main advantage in reusing ridges would be to allow early weeding of maize fields instead of continuing to prepare soil for other gardens.

Maize Agronomy has been very active in cooperating with researchers in outlying research stations to establish trials under farmer management. Farmers'-field trials should include women as trial cooperators instead of primarily as wives of male cooperators. Often the researchers instruct the husband on how to manage the trial in the absence of the wife. When the wife later receives directions from the husband, essential aspects on trial management may be omitted. Presently trial cooperators are selected at the discretion of the area extension staff. It is necessary for the researchers to insist on a representative proportion of women as trial cooperators.

#### MAIZE BREEDING SECTION

Two primary objectives for the benefit of women farmers should be resistance to storage losses from insects and proper pounding characteristics for producing the preferred white maize meal.

The section has quantified storage ability and pounding characteristics of maize breeding lines, although these tests have not been conducted every year. However, the Maize Breeder recognizes the importance of pounding characteristics and is improving this trait by crossing local flint types with high yield dent maize.

This breeder believes hybrid maize would be acceptable for home consumption if rural grinding mills would incorporate a polishing machine to remove the bran from the starch. This would eliminate the need for pounding maize in a mortar, which normally shatters the soft starch of pure dent maize.

A preference was stated towards open-pollinated varieties to allow small holder farmers to save seed for several years. This objective is particularly useful to low-resource women farmers who are risk averse to the extent of avociding credit packages which include commercially-produced hybrid seed.

#### SEED TECHNOLOGY SECTION

This unit conducts the service of testing for seed quality in Malawi, and must certify seed to be sold in the formal economy. The testing is usually done shortly after harvest and the section does not investigate the quality of seed at the time of selling. It is true the section does not have the resources to test seed at all distribution centres when seed is sold. However, random spot checks would be desirable to help locate seed which may have been damaged during storage and transportation.

A trial at Chitedze A.R.S. investigated part of this problem by comparing machine shelled against hand shelled groundnuts with and without fungicides. This trial substantiates extension recommendations that farmers save their own seed instead of purchasing machine-shelled groundnut unless the seed is dressed with fungicide. Seed dressing of groundnuts is a moderate form of chemical use which may be easy to adopt by low-resource women farmers with a moderate cash income. In particular the high oil content of ManiPintar groundnuts causes severe germination problems unless the seed has been dressed with fungicide.

Another trial sought to correlate the germination of maize seed planted in the field with results from the laboratory for the same seed. This trial is aimed at buyers of improved maize seed which is about 11% of female-headed households and 29% of MHH according to the 1980-81 NSSA of Lilongwe RDP. The section should continue coordination with Maize Breeding to select varieties with seed which stores well without chemical dressings and maintains high germination percentages the following year.

#### FARM MACHINERY SECTION

This section tests, modifies and invents farm machinery, while the actual production is done by agencies and factories located elsewhere. Presently a major effort is directed toward developing a suitable steel toolbar to which the interchangeable implements of a plough, ridger and deeptine weeder can be attached. More affordable designs for low-resource women farmers are ox-drawn implements of which the main body is built of wood fashioned by village craftsmen. Only a few joints and the main cutting tool need be of factory-made steel, a design used extensively in North America during the 19th Century. The section head foresees problems of identifying village craftsmen who would be interested in constructing the wooden elements. To accomplish this, close cooperation is needed with the Vocational Training Institute in Mponela to identify and train woodworkers.

Engineers and craftsmen in the Farm Machinery Section have designed a hand-operated maize sheller which has the ability to lighten the workload of many woman farmers, especially those who assist in growing maize for sale. Similar to a meat grinder in design, the Chitedze Maize Sheller sells for K6.00 and has several times the efficiency of the normal method of hand shelling maize. The machine itself appears to be an ideal example of labour-saving technology for Malawian women. A new marketing arrangement should allow the Chitedze Maize Sheller to be sold in rural-growth centres, thereby greatly increasing the number of places women can purchase this appropriate technology.

Unlike the maize sheller, the groundnut sheller presently available is too large and expensive for most women farmers. Future designs of the groundnut sheller are intended to be smaller, less expensive, and partially built of wood. Such inventions which decrease time needed after harvest for threshing seed would allow women farmers more time for early garden preparation when soil is still slightly moist. The section head is also interested in low cost wheel barrows partly built of wood. These would help relieve many women farmers who must carry water, wood and food.

#### SOIL FERTILITY AND PLANT NUTRITION SECTION

This section is conducting a trial with the objective of long-term maintenance of soil fertility through crop rotation and integrated nutrient supply. One rotation includes 4-years of fallow under pasture legume after 4-years of cropping, which is not feasible for land-scarce families who cannot afford to allow land to lie fallow for so many years. A more relevant strategy where land is scarce would be using a legume green-manure as an intercrop or as a fallow once every several years. Part of this trial involves using lime, farm-yard manure and N-P-K fertilizers. Lime and potassium fertilizers are presently not available to smallholder farmers, so such results could only be applicable in the future.

A major activity of the section is the service of chemical and physical analysis of soil and plant materials. Of the roughly 3000 samples analyzed per year, the estate sector and research contribute the most samples. Soil samples from smallholder farms are usually given to extension centres for submission to the Regional Agricultural Officer. It is possible that problems of cost, transportation or interpretation of results reduce the number of soil samples collected from small holder farmers.

#### HORTICULTURE SECTION

This section was begun at Chitedze in 1981 under the guidance of Byumbwe A.R.S. Although research trials were delayed until recently while awaiting for instructions from Byumbwe, cultivar trials have been established for strawberries, mangoes, and oranges. The staff members have concentrated on producing vegetables for the Chitedze Community. Except for pumpkin leaves, the vegetables are of the European style rather than indigenous.

Men rather than women tend to manage the dimba gardens which produce European-style vegetables for cash sale. Therefore, it seems men will benefit more than women from the present emphasis by the section on non-traditional vegetables. Research on 'mpiru', amaranthus, pumpkin leaves and okra would be of more relevance to women farmers, since women tend to produce these traditional vegetables consumed within the home.

## CONCLUSION

This analysis of the relevance of agricultural research activities to women farmers has been limited to various sections of the largest research station. However, these viewpoints can be extended to other agricultural stations at which different scientists are investigating other questions. One basic assumption used here is that many women farmers on their own are low resource farmers. Progressive farming techniques that are used on fields managed by the husband may not be applied to the wife's crops due to a lack of labour and inputs. The tendency of female household heads to have less formal education and smaller holding sizes than male household heads may be reflected in a slower adoption rate of new techniques.

Societal attitudes affect the occupational tasks carried out by men and women within the household structure. This can cause some priorities within a given research programme to be more important to women than to men. An example was found in a farmer's survey conducted by Lifuwu Rice Research Station. It was discovered that many women farmers did not prefer to grow early maturing varieties of rice because the timing conflicted with their work on maize.

1. Due to the lower priority of groundnuts compared with maize and tobacco, groundnut research needs to identify varieties which yield well when planted late, find techniques to maximize low amounts of seed, and discover less labour intensive methods of planting.
2. Plant pathology research should concentrate more on identification of disease diversity and incidence in the fields of farmers and fellow researchers.
3. Groundnut breeding should continue to strive for new varieties with resistance to rosette and early leaf spot while maintaining high yield and large seed size.
4. Livestock research should expand on its recent experiments with poultry and sheep and concentrate more on small animals for smallholders.
5. Maize agronomy should continue to investigate techniques that ease critical periods of labour shortages. On-farm trials should include a representative proportion of women farmers.
6. Maize breeding should continue to quantify and select for varieties with characteristics of efficient pounding and low insect damage during storage. They should continue to breed open pollinated varieties so that low resource farmers can save seed for several years.

7. All plant breeders in Malawi need to request assistance from seed technologists to screen breeding lines for the seed traits of high germination and insect resistance during storage.
8. Horticultural research needs to spend more efforts on selecting more favourable cultivars and management practices for the indigenous vegetables and fruits commonly consumed by rural households.
9. Farm machinery researchers, factories and village craftsmen need to cooperate to produce oxen-drawn implements fabricated partly of wood. Continued research on threshing machines and commodity carriers will help relieve the workload of rural women, and allow more time for other productive tasks.
10. Research on maintaining soil fertilizer should consider the conditions of smallholders by growing legume green manures as intercrops and one-year fallows. The fertilizers and soil amendments used should be in chemical forms and amounts realistically available to low-resources farmers.

In order to be adopted, applied research must be profitable to the target farmers with a minimum of modifications to the existing farming systems of land, labour and capital. Research conducted for the recommendation domain of progressive farmers may not be appropriate for women growing crops under low resource conditions.

To benefit both high and low resource farmers, researchers must be aware of the advantages and problems of each target group. Sometimes a new innovation will directly benefit both categories, such as a new variety of an existing crop. If the problems of poorer farmers are not considered during the research process, too often the results from the research may not be relevant to that recommendation domain.

### III. INCLUDING WOMEN FARMERS IN RURAL DEVELOPMENT PROJECT PROPOSALS

#### A. National Rural Development Programme

In 1977 Malawi embarked on a 20 year National Rural Development Programme (NRDP) to increase production in the smallholder sector which was lagging behind the estate sector (GOM, NRDP, 1978). The Department of Agricultural Development (DAD) was formed to be responsible for crop and rural development, extension and training, marketing, co-ordination, and technical services throughout the country (GOM, NRDP, 1978:24). The country was divided into 8 Agricultural Development Divisions (ADDs) at Karonga, Mzuzu, Kasungu, Lilongwe, Salima, Liwonde, Blantyre and Ngabu. Each ADD has 2 to 5 Rural Development Projects (RDPs) under its control. There are 40 RDPs of which 19 are funded by donors and the rest are on government revenue funds.\*

The basic unit of agricultural extension/development service is the Extension Planning Area (EPA). An EPA is ideally environmentally uniform, with a permanent market, an office area headed by a TD or STA grade officer, about 10 TAs of various types, and averaging about 500 farm families (of 25,000 people). There are 180 EPAs within which are a number of smaller service centres (temporary market, dip tank, health post and primary school). In each RDP there are an average of 4-5 EPAs. Graduates from Bunda, Tolby, Thuchala and Mikolongwe staff the Projects and ADDs.

The objectives of NRDP are threefold:

1. To increase smallholder production, especially the production of export cash crops and food for the urbanites.
2. To conserve National resources through better crop husbandry, conservation of watershed areas and forests.
3. Provide inputs and services for smallholders.

According to the programmes each RDP or development area would go through 4 phases:

- (a) a 2-3 year preparatory phase where surveys and trials data were collected followed by physical and economic planning and construction of staff housing, offices, and roads.
- (b) a 5-year extensive phase with improved extension and training, marketing and supply of inputs and credit.
- (c) a 5-year intensive phase where more research and new crops and technologies were introduced as well as the opening of new areas.
- (d) a consolidation phase where the intensive phase would be continued, and health, education and rural industries would increase (GOM, NRDP, 1978:56-7).

Baseline and labour data for development of RDPs would be provided by Agro-Economic Surveys. Data on yields and crops would come from surveys both national and localized. Evaluation units were set up in the ADDs as well as in the Planning Division (MOA).

\*Figures supplied by the Planning Division show a total of 28 RDPs, about half of which are funded and half are on revenues.

NRDP set up a series of reporting formats for the RDPs. The Monthly Report summarizes data on financial control, credit and cash sales to farmers, crop purchases, vehicle and plant use, staffing and crop forecasts. The Quarterly Report summarizes monthly data by quarter with brief comments from each section/component and management, tables of comparison between targets and achievements. The Annual Report tabulates data on project targets and achievements, evaluation survey and research results, weather statistics, price, input, crop and livestock statistics, and analysis of credit performance (GOM, NRDP 1978: Annex 3-1).

#### B. The Present Level of Addressing Women Farmers Needs in RDP Proposals

It is useful to examine a few RDP proposals to donors to ascertain their objectives and whether or not (1) provisions have been made for women as well as men as project beneficiaries and (2) if any available data on women have been incorporated into the proposals.

LRDP, Phalombe and Balaka RDP are selected here. The first two are considered because information on women in these areas have been discussed. The Balaka RDP proposal, among the most recent and ready for funding, contains more information on women than any proposal available.

#### LRDP Proposals for Phase IV 1977 (LADD)

The aim of the project over a 5-year investment period (beginning 1978) would be to

- a) continue agricultural extension services and staff training,
- b) supply operating costs for the credit fund to continue seasonal, medium term, stall feeder, dairy and poultry loans for all programmes area farmers,
- c) develop further specialized livestock services,
- d) complete land allocation,
- e) accelerate the rate of establishment of wood lots by smallholders,
- f) continued support for Dzalanyama Ranch,
- g) continued function of the marketing sector.

It can be seen that a, b, and e directly affect women in particular as they could benefit from agricultural services, increased uptake of all types of credit and establishment of woodlots in their capacity as wives and household heads (farm managers). Unfortunately, the assumption in the proposal is that women use "farmers wives" to be trained in home economics. Women are mentioned as having high attendance at day training courses. The section on farmers benefits stresses improvement in crop husbandry and livestock programmes but no strategies are given. The section on forestry notes that "the demand for timber for domestic purposes will probably increase faster than population growth" (Annex 4) but the proposal focuses on supplying poles for construction and fuel for tobacco curing, and therefore focuses on men. Women's responsibility for fuelwood is not mentioned. The credit figures do not show any sex-disaggregated figures. Specific problems with groundnut yields are noted, but women's involvement with the crop is not noted.

## Phalombe RDP Proposals 1975 and 1977 (BLADD)

The Phalombe RDP proposal for June 1975 does provide sex ratios for the area (they are as low as 48 males to 100 females in some areas). Nevertheless the unit that the development project aims is the family consisting of husband, wife and children. The report states that the woman is in charge of food crops while the man is in charge of cash crops and the basic source of labour is the husband and wife. The husband is counted as one man unit while the wife counts as .7 man unit. No project services or programmes take into account that so many men are away and many households are headed by women. Women are mentioned as contributing labour to the piped water project. The 1977 proposal makes no mention of women. The unit of development, once again, is the farm family (husband, wife and children).

It should be pointed out that other RDPs prepared in the 1970s are similar to the LRDP and Phalombe RDP proposals. These proposals have little or no background data on women nor is their involvement in programmes specified. No mention is made of their needs, strategies for reaching them (except for training in home economics and need for one FHA for each EPA) or targets for programmes. The only reference to women is their need for training in home economics and the need for one FHA to staff each EPA.

## Balaka RDP (LWADD)

By contrast with the RDPs prepared in the 1970s, the Balaka RDP proposal has a section on Women's Programs. It differs from many RDP proposals in that it provides a considerable amount of socio-economic background data, some of which is sex disaggregated. Also unique is that the strategies for some of the programmes are specified. Notice is taken of the low sex ratio (880 males to 1000 females) and the fact that 42 percent of all households are headed by women. It is noted that these FHAs have limited labour supply as well as smaller holding size. Recognition is given to the fact that 50 percent of the food deficient households are headed by women.

Under Basic Agricultural Services is a section on Women's Programmes which is given here in its entirety.

### "Womens Programmes"

More than 40% of all households in the Balaka RDP are headed by Women, hence training of the mostly male extension field staff will have to take due account of the particular circumstances resulting from this situation.

In particular the common perception of specifically women-related programmes has been reconsidered in view of the fact that the decision-making power on what crops and how they are to be grown rests with women in the major part of the target population. Hence in organizing extension groups at the village level women specialist staff (still called "Farm Home Assistants" (FHA) will become more closely involved than in the past. Each EPA has one FHA staff whose activities are prepared by a specialist women's programmes officer at MU level. Apart from this shift in emphasis the FHAs still will devote about half of their time to provide special extension advice on matters directly related to the household. In this respect each FHA will establish four women groups and provide advice on crop storage, nutrition and other household-related issues. In particular women groups will be trained on agri-

cultural activities which can serve both, generating additional income to the household and improve daily diet. These programmes will concentrate on vegetable and fruit production, poultry and small stock keeping as well as on proper food preparation for either home consumption or sale." (page 69)

There is a good recognition of fact that more than 40 percent of households are female headed and that male extension-staff will have to take this into account. The strategy for dealing with rural women suggested however, is that the PHAs will become more closely involved in extension groups, each establishing 4 women's groups which will concentrate on vegetable and poultry production. This strategy has been offered by the Women's Programmes in other areas; it is not new nor very effective. Some reasons are:

1. PHAs are few and rural women are many. There are 163 PHAs for the entire country. Malaka has 3 of them and hopes to get another for its 4 EPAs.
2. PHAs have had little training in these topics and many haven't taught the subjects or don't teach them regularly. (See Part II, Annex 6 on PHAs).
3. The focus on vegetable and poultry production has its origin in a) the western model of farmers' wives keeping kitchen gardens and chickens, and b) the Malawian concern with better nutrition.

However, in all the years of emphasizing these agricultural aspects to rural women who are responsible for field crops, not too many women have grown the exotic (European) vegetables that have been promoted. Some reasons are that men more than women have access to dambo land and can do garden fencing, and loans for poultry production have favored men as well. Rural women are used to indigenous vegetables which are often "volunteer" crops.

Even if the main agricultural emphasis for women were to be on vegetables and poultry production,\* a serious strategy would have some of the following aspects:

#### General

1. Trainers would be many and include male workers as well as the few PHAs.
2. Training Centres would have poultry units and demonstration gardens with local vegetables (e.g., Fonongwe, Mphiru) and European vegetables (e.g., tomatoes, onions) in which improved practices would be demonstrated.
3. Recruitment of women to the programme would have been wider basis than the few women's groups.

\*This strategy fails to take into account that women's main interest is in growing field crops for a staple food supply and cash income.

4. Local leaders and village headmen would have to be contacted and their help obtained in telling women about the programme. In addition, suitable land for growing vegetables would need to be made available by village headmen.

#### Vegetable Production

5. Trainers of rural women would have the correct technical information and inputs both on exotic and indigenous vegetables in terms of nursery preparation, seed rates and spacing, fertilizer and water requirements, etc.
6. Trainers could teach fencing methods.
7. Problems of obtaining water for vegetable gardens would be addressed. Water run off from boreholes and taps could be utilized. Water pumps and water collection systems need to be devised.
8. Trainers could instruct rural women on marketing and pricing procedures, gross margins, etc., for various vegetables.

#### Poultry

9. Regular programmes for purchasing improved breeds and obtaining vaccines would be part of the emphasis on poultry.
10. Trainers would have the technical information on breeds, housing, and feeding requirements, vaccines, costs and prices (gross margins), etc.

Considering strategies offered in the proposal for reaching farmers, the basic extension technique relies on TAs making regular contact with farmers. The farmers are to:

1. Participate in decision making through the promotion of farmers committees at section, EPA, project and the Management Unit (MU) levels.
2. Be assisted in forming farmers groups as multipurpose development clubs with the final objective of transforming all groups into clubs.

The extension service is provided only to farmers groups on a regular fortnightly sequence and is mainly concerned with crop husbandry practices which are part of the system. Representatives of groups and clubs are well trained on a regular basis.

The basic strategy is a sound one, but as specified the main participants will be men because:

1. Men are committee members. (Most committees have one women's representative at best).
2. Farmer group/club members are primarily men.
3. Group and club leaders who will receive the training will mostly be men.
4. The Responsibility for rural women will still rest with FHAs who are supposed to concentrate on poultry and vegetables.

Other aspects of the Project Strategies and Programmes include the following. Next to each one are suggestions as to how women could be reached by the programme.

1. Water Programmes: In addition to obtaining local leaders opinions, women (who are responsible for the household supply) need to be queried. They should also be taught simple maintenance and placed on water committees.
2. Land Husbandry: The lack of knowledge of ridge alignment following contours is wide spread among women but the targets for remedying the situation are existing clubs/groups which contain primarily men. For example, wives of male members should be targeted for participation.
3. Reforestation: Methods of how to reach women who are responsible for fuelwood are not considered. Once the mechanisms for male staff reaching female farmers are worked out, then programmes can succeed in targeting women.
4. Credit Programmes: Tend to focus on cotton growers. Although the percentage of female cotton growers is not high, women should be encouraged to take UVL sprayers and oxen on medium term credit. Special seasonal packages of improved soghum and fertilizer by itself will be more useful to women. However, women must be in farmer groups/clubs to receive credit and the mechanisms for increasing their participation are not stated.
5. Livestock Programmes: Women on their own and married women whose husbands own cattle will need advise. Once again this relates to extension methods for reaching women.
6. Plant Protection: The report mentions the low standards of knowledge on plant protection. Women usually have little knowledge and training courses (even the home economics ones) should cover this topic.
7. Cassava Project to offer mosaic resistant varieties should concentrate on getting the seed material to women who are responsible for the crop.
8. Minor Cash Crops (sesame, sunflower, castor seed) are good crops to target for introduction to women.
9. Trials: Married women and FHAs should participate in on farm trials. Constraints to their production as well as their skills may be appreciated.
10. Monitoring and Evaluation: In order to assess the impact of the project on women as well as men, internal reporting

and survey formats are listed. The internal formats should collect information on the number of men and women participating. The survey formats need to disaggregate data by sex of household head as is already done for some of the variables.

a. Internal Reporting Formats

- 1) Daily Diary. List men and women in clubs and participating in activities.
- 2) Ulendo Programme Form. List men and women contacted.
- 3) Fortnightly Record. For FAs - List club members, members trained, and adoption by farmers in terms of men and women.
- 4) Extension Record for EPAs. List number of club/group members and farmers attending training as well as percentage of farmers attending in terms of men and women.
- 5) Extension Record by Project. List number of members in clubs/groups and actually attending training as well as percentages of farmers attending in terms of men and women.

C. Guidelines for RDP Proposals: Addressing Programmes to Rural Women

What should be included in the proposal so that women can be targeted and their participation monitored?

The following lists the background/baseline data that would be useful in planning programmes. It is realized that not all of the items listed are available for inclusion because the data has not been collected. However, if the data has been collected or available, but not analyzed by sex of household head or by men and women, then it should be analyzed to obtain the necessary information. Much of the information (yields, cropping patterns, % FPHs, livestock ownership, etc.) is available from the NSSA and labour data from AES can also be used.

Background/Baseline Data

1. Demographic data
  - Sex ratios
  - % FPHs (% married and unmarried)
  - Average family size (for MPHs and FPHs)
  - School education by sex.
2. Holding size by sex of HH
3. Yields by crop and sex of HH
4. Livestock ownership by type of animal and sex of HH
5. Cropping patterns of MPHs and FPHs
6. Basic social organization and division of labour by sex

7. An estimation of increased labour requirements of men and women as a result of development programmes.
8. Land tenure patterns.
9. Cultivation practices of men and women and/or MHHS and FHHS
  - improved techniques and varieties
  - fertilizer usage
  - cultural practices; spacing, weeding
10. Income from agricultural and non-agricultural pursuits by sex.
11. Extension staff by grade and sex
  - Ratio male staff/farmers
  - ratio female staff/farmers

#### Baseline Data on Project Services

Many RDPs coming up for renewal have had some extension services/activities operating already. Where this is the case the following additional baseline data should be included in the proposal.

1. Number of men and women in farmers' clubs
2. Number of men and women in farmers' seasonal credit programmes.
3. Number of men and women in farmers' medium term credit programmes.
4. Number of men and women in farmers' stallfeeder programmes.
5. Number of men and women in farmers' dairy programmes.
6. Number of men and women in farmers' poultry programmes
7. Types of credit packages taken by women and men.
8. Number of women in women's groups.
9. Training Centre figures by type of course and sex of participants.
10. Extension contacts to farmers by type and sex of farmer.
  - Visits
  - Meetings
  - Attendance at demonstrations
  - Field days, tours
11. Staff training by sex and type.
12. Land husbandry and farm planning exercises by sex of participants.

#### Development Constraints

Most RDPs assess various constraints in the households to be targeted. Assessment of the following aspects should indicate the differential effects on men and women as individuals, household members and household heads.

1. water supply
2. firewood supply
3. types of households (by income categories, holding size, cropping patterns) that can utilize the standardized packages, those that cannot and the reasons.
4. Labour constraints
  - peak times
  - households that hire labour (piece work and contract)
  - households that sell labour (piece work and contract)
5. crop problems
  - soils
  - preferred patterns

#### Core Components of RDPs

Most RDPs in Malawi have similar basic components. These include infrastructure, crop and livestock programmes, extension and credit services, etc. Differences between one proposal and the next rest with how the natural and demographic conditions and situational constraints of the particular area are fitted in to the components. The skill, utilization of background data, creativity of the proposal writers affect its composition. The following discusses each component in terms of how women may be affected and target as beneficiaries. The components\* are:

1. Basic Agricultural Extension Services
2. Land Husbandry
3. Animal Husbandry and Livestock Development
4. Crop Production and Protection
5. Agricultural Credit
6. Forestry
7. Water Supply
8. Women's Programmes
9. Nutrition\*\*
10. Budget

\*The Balaka RDP proposal serves as a good guide to project components.

\*\*This has not been a component, but it should be.

## Basic Agricultural Extension Services

1. Extension services are provided to farmers in clubs/groups, therefore women must be members to receive assistance. Strategies to include them should be specified. Some suggestions are:
  - a) campaigns by extension workers to get women into existing clubs,
  - b) use of problem solving methodology (see Part II, Annex 4) to form women into groups,
  - c) use of local leaders to encourage participation,
  - d) special leadership training for women, etc.
2. Farmer committees to be formed, should include several women, not just a women's representative.
3. Development officers must monitor extension staffs contacts with women as well as men. Reporting formats must give extension contacts by men and women.
4. Training programmes must increase training for women in general agriculture. Topics may be combined with home economics but should include aspects of farming in which women are involved. (See above discussion on vegetables and poultry production). Improved methods and varieties should be promoted. At least 30% of places in agricultural courses should be reserved for women. There must be new recruitment strategies to get women into these courses. Use of traditional and non-traditional leaders, husbands and male relatives, direct contacts, women's groups (of FHAs and HCWs), media campaigns, etc.
5. In-service training for staff, male and female staff should attend regular in-service training and staff meetings together, receive written materials and be assisted by SMSs at various levels.

## Land Husbandry (See Annual Work Plan below)

Proposals should note:

1. That Women's Programmes staff and women's groups can be provided with land use planning.
2. FHAs and female FAs should be included in staff training on land husbandry.
3. mechanisms for recruiting women farmers for catchment conservation and soil conservation measures on individual plots.
4. Targets for male and female household heads participation in construction of physical structures such as bunds, waterways, etc.

## Animal Husbandry (See Annual Work Plan)

1. Targets should be set for women as well as men in livestock programmes (stallfeeders, dairy, poultry) and training (ox-ploughing).
2. Mechanisms for recruiting women as well as men in livestock programmes should be specified.

3. Women farmers (FHHs) who own cattle and are willing to improve their herd should also be included on the annual health drugs budget.
4. There should be a mention as to how the section is going to increase the number of women obtaining steers, dairy animals and oxen on credit and the funds required.
5. Number of women (rural women and female staff) to be included in the special animal husbandry courses, e.g., stallfeeding, dairy, should be targeted. Mechanisms for recruiting the women should be stated.
6. If ox-training is part of the ADDS Animal Husbandry Programme, the number of women to be trained and issued oxen should be targeted.

#### Crop Production and Protection

1. Programmes of introducing major and minor cash crops as well as fruits and vegetables must specify how they will reach women as well as men.
2. Pilot projects might target certain crops for emphasis by women, e.g., green grams, wheat.
3. Crop protection problems that men and women face should be identified and mentioned in all proposals.
4. Mechanisms for making women more aware of the crop protection measures need to be specified.
5. FHAs and female TAs as well as the male staff, should be included in the training budget on special crop production and protection courses.
6. Both men and women should participate in the trials and the section's special courses.

#### Agricultural Credit (See Annual Work Plan)

1. More women need to be included in groups/clubs because this is the way seasonal credit is issued to farmers. Strategies for increasing women's participation in the clubs/groups should be clearly indicated. (See work plans below).
2. The types of packages and numbers of farmers by sex should be monitored.
3. If special credit/saving scheme programmes are one of the ADDS pilot projects, it should be included in proposals.
4. Strategies by which project staff will help women participate more in the credit programmes and should be given ways for making women more aware that they have access to seasonal and medium term credit should be indicated.
5. There should be special targeting of female high resource farmers for ox-carts and farm implements.
6. Pilot projects that aim at providing seasonal credit inputs to women on a no-waiting period basis (as is being done in Phalombe, women's groups are formed and village headmen vouch for women's reliability) should be written into proposals.

7. Similarly, pilot projects on such packages as improved varieties of sorghum and millet and other crops grown more by women than men could be directed to women.
8. To increase food self-sufficiency, small credit packages of groundnut seed (17.5 kg.) and 1-2 bags of fertilizer could be offered.

### Forestry

1. The proposals should mention women's groups as one of the target groups to be encouraged to grow trees for fuel wood and poles on a communal basis. Strategies for doing this should be indicated.
2. Mechanisms as to how rural women (main users of wood) are to be encouraged to attend afforestation courses or get involved in afforestation programs, e.g., conservation of old forests, protection of soil and water supplies, production of timber, etc., should be specified.
3. The section should propose a pilot project which would enable more FHHs to establish woodlots.
4. A programme to teach women to raise their own seedlings and to plant trees around the house could be started.
5. The reports of the section need to be disaggregated by sex to identify activities in which women's participation is low. Such activities should be brought up in the proposals for further action.

### Water Supply

1. Location and type of water supplies should be dependent on women's requirements. Location wherever possible should be selected on women's preferences as well as density mapping and technical considerations. How the planners will obtain women's views should be specified.
2. Women as well as men should be involved in the self-help aspects of putting in water supplies, i.e., they can help in digging trenches, laying pipes, etc., in order to understand the operation of the supply.
3. Both men and women should be trained in simple maintenance of the water system, e.g., coreholes, water taps, etc.
4. Maintenance committees should be composed primarily of women because they are the utilizers of the system.

### Women's Programmes (See Part II, Priorities for Women's Programmes)

#### Nutrition

1. Assessment of the situation should be included in background data if possible. Otherwise it should be part of the Project's programme.
2. Field staff must be trained in interviewing people to obtain nutrition information on
  - seasonal availability of food
  - blocks in the food chain
 and in delivering nutrition demonstrations and working with feeding programs.

3. Training sections should be supplied with adequate nutrition information, e.g., nutrition education training packs of the Food and Nutrition Programme/(these are costly and should be budgeted for).  
Section
4. Food and Nutrition Programmes Section should prepare a coordinated package that could be utilized in RDP proposals.

Budget

1. Extra funds for women's credit involvement (seasonal, medium term).
2. Funds for stationary equipment, housing, etc., for female staff.
3. Transport for Women's Programmes Section (vehicles) and scooters for SPHAs and PHAs.
4. Funds for pilot projects involving women must be budgeted.

#### IV. PROJECT SERVICES TO RURAL WOMEN

##### A. The Present Situation

The following aspects of development programmes depend on the extension services - inputs, credit, training, organization of clubs and groups, farmer-managed trials, land husbandry and farm planning services, livestock programmes, crop protection programmes, forestry and collection of data on farmers participation in programmes. Therefore the policies and mechanisms set up for the extension personnel getting in contact with farmers and recruiting them for programmes and (2) the extension personnel getting correct technical information to give to farmers are critical for the success of programmes.

Information from all over Africa and Malawi also show that the extension staff is predominately male. In Malawi there are about 1,900 male and 190 female extension workers or a ten-fold difference. Yet at least half and usually more of the farmers are female. The female farm managers in Malawi comprises an average 30% of households.

Understandably, male workers seek out male farmers, organizing, recruiting and offering project services to them primarily, even though agents are supposed to work with "farmers." The result is that women are under represented in extension programmes and farmers organizations. Often it is assumed that if husbands are trained, or assisted it is sufficient for the family. As the information shows today's married women is tomorrow's FHHs and the "trickle down" effect does not work as well as one would like it to in that husbands do not pass on as much information as development planners would like them to.

Because of this bias, it is necessary to specify specific mechanisms and strategies and to set targets for including women. The absence of specifying these things means no one is required or responsible for involving women and their participation is on an ad hoc basis only. Sometimes services reach them and other times they do not. The following documents the extent of women's involvement in extension contacts, credit programmes and training. No data was available concerning their participation in land husbandry and farm planning services, crop protection programmes or afforestation.

---

\*No surveys exist on farmers participation in crop protection programmes. However, WIADP asked male enumerators about male extension workers contacts with women. Almost all agreed that women were contacted very little in any worm control programmes. Queries to farmers revealed that women had much less information on crop diseases and pest and their control than men. FHAS mentioned their own lack of technical information in this field.

## General Extension Activities

Farmers contacts with extension workers (personal and field visits, group meetings, demonstrations) and Extension Aids programmes (radio programmes, cinema and puppet shows) were queried in the Extension Survey of the NSSA. In addition to the sources of advice and types of contacts, farmers were asked about the topics on which they received advice. Data from two RDPs (Lilongwe and Phalombe) and two ADDs (Karonga and Ngabu) are compared here as these data are disaggregated by sex\*.

In both Lilongwe RDP and Ngabu ADD data on MHHs, their wives and FHHs were tabulated separately. In Phalombe RDP the Evaluation Unit tabulated both male and female household heads together, and wives of MHHs were tabulated separately. In Karonga ADD the wives of MHHs and FHHs were tabulated together due to the low number of FHHs in the Extension Survey.

The data on the sources of advice for the major extension topics, shows that extension workers are the major source of advice for both men and women farmers. Apparently more of the advice given to men comes from extension workers compared with women. Except in Phalombe RDP women appear to receive slightly more of their topics from other farmers and friends, as seen by the data from LRDP and KRADD (Table 21).

In most cases for both men and women little agricultural advice was derived from yellow-van puppets or cinema shows, traditional or party leaders and agricultural shows. Training courses were an important source of advice for both men (18%) and women (20%) in Karonga ADD.

Table 22 shows the proportion of respondents who were contacted by extension agents. More men than women receive personal visits by extension workers. In LRDP 41% of FHHs were personally contacted compared with 28% of their wives and 23% of MHHs. In Ngabu ADD the personal contacts were lower.

Twenty eight percent of MHHs versus 12% and 4% of wives and FHHs in Karonga ADD 44% of male heads and 29% of women respondents were contacted personally.

Group meetings tend to reach more farmers than personal contacts, although women may not benefit as much as men. In the three areas shown at least 15% more men were contacted by meetings compared with personal visits (Table 22). Only in LRDP did women benefit considerably more by meetings than personal visits. However, more men always attend such gatherings. In LRDP 66% of male heads were contacted by group meetings, compared with 44% of their wives and 49% of FHHs. The overall attendance was lower in NADD where 43% of MHHs, 12% of wives but only 8% of FHHs attended meetings. Only half as many women as men were included in KRADD with 61% of male heads and 34% of wives and female heads contacted through meetings.

Relatively few male or female farmers visited extension demonstrations. Although the differences were very small, slightly more men than women learned through this method. Field visits also reached a smaller proportion of farmers than personal visits or group meetings, although women appear to be contacted less than men. One reason may be that nearby women are not summoned to listen as the extension agent instructs the men he finds working in the field. In LRDP 13% of the MHHs were visited in the field compared with 9% of wives and 6% of FHHs visited in the field. Similarly in KRADD 16% of MHHs and 4% of wives and FHHs received field visits.

\* WIADP disaggregated the KRADD and LRDP surveys and the Evaluation Units of BLADD and NADD disaggregated Phalombe and NADD surveys.

TABLE 21: SOURCES OF ADVICE ON EXTENSION TOPICS FROM THREE AREAS OF THE 1980-81 NSSA.

SOURCE OF ADVICE	LRDP			PRDP		KRADD	
	MHH (n=147)	WIVES (n=35)	FHH (n=77)	MHH + FHH (n=277)	WIVES (n=42)	MHH (n=70)	FHH + WIVES (n=73)
% of Topics Taught							
Other Farmer/ Friend	5	9	14	13	14	12	19
Party Leader	1	3	3	*	9	3	3
Traditional Leader	2	3	6	*	***	2	3
Extension Worker	75	56	58	24	48**	50	40
Training Course	4	6	6	6	***	18	20
Radio Programme	7	6	5	14	**	-	-
Yellow-Van Cinema	2	4	3	20	11	4	7
Agricultural Show	1	0	1	5	***	2	-
Yellow-Van Puppets	1	0	1	9	***	1	2
Other Sources	1	3	1	8 <sup>o</sup>	***	9	6
TOTAL %	99	100	98	99	82	101	100
TOTAL NO. TOPICS	665	355	93	285	76	336	207

\*Other Sources includes Traditional and Party Leaders, Za Achikuabi and Nurses.

\*\*Includes Extension Worker and Radio Programmes.

\*\*\*Not tabulated.

o Male Household Household Heads (MHHs) their wives and Female Household Head (FHHs) tabulated separately for Lilongwe Rural Development Project (LRDP).

\*\* MHHs and FHHs tabulated separately from Wives of MHHs in Phalombe RDP (PRDP).

\*\*\* MHHs tabulated separately from FHHs and Wives of MHHs in Karonga Agricultural Development Division (KRADD).

TABLE 22: TYPE OF CONTACT FROM EXTENSION AGENTS TO HOUSEHOLD HEADS AND WIVES OF THE 1980-81 NSSA.

TYPE OF CONTACT	LRDP*			NADD*			KRADD**	
	MHH (n=147)	WIVES (n=135)	FHH (n=35)	MHH (n=95)	WIVES (n=95)	FHH (n=31)	MHH (n=70)	FHH/WIVES (n=73)
	% Respondents Contacted							
Personal Visit	41	28	23	28	12	4	44	29
Group Meeting	66	44	49	43	12	8	61	34
Demonstration	13	6	6	5	1	0	16	10
Field Visit	13	9	6	15	5	2	16	4

\*Male Household Heads (MHHs), their Wives and Female Household Heads (FHHs) tabulated separately for Lilongwe Rural Development Project (LRDP) and Ngabu Agricultural Development Division (NADD).

\*\*MHHs tabulated separately from FHHs and Wives of MHHs for Karonga ADD (KRADD).

TABLE 25: PERCENTAGE OF RESPONDENTS FROM FOUR 1980-81 NSSA AREAS WHO RECEIVED ADVICE ON EXTENSION TOPICS

EXTENSION TOPIC	LRDP*			NADD*			PRDP**		KRADD***	
	MHH	Wives	FHH	MHH	Wives	FHH	MHH	Wives	MHH	Wives
	% Received Advice									
Land Husbandry	61	28	34	45	20	42	52	11	59	34
Animal Husbandry	42	18	31	31	15	10	43	9	60	15
Crop Husbandry	76	47	63	62	22	32	64	11	71	52
Vegetables	25	22	22	17	7	13	29	12	21	16
Woodlots	47	14	9	19	3	6	19	3	30	11
Credit	64	33	43	43	11	26	30	11	67	34
Food Storage	31	19	9	22	5	13	25	11	33	27
Agricultural Show	29	12	6	24	5	23	42	8	46	22
Farmer Clubs	32	13	11	13	4	10	9	-	37	14
Training	34	16	11	19	5	16	19	0	43	18
Home Economics	25	39	26	2	14	26	32	18	13	46
Sample Size	147	135	35	95	95	31	77	42	76	72

\*Separate tabulations for Male Household Heads (MHH) their wives, and Female Household Heads (FHH).

\*\*MHH and FHH tabulated together whereas the wives of MHH tabulated separately

\*\*\*MHH tabulated separately whereas FHH and the wives of MHH tabulated together.

TABLE 24: AVERAGE NUMBER OF EXTENSION TOPICS FROM 1980-81 NSSA

EXTENSION AREA	HOUSEHOLD ROLE		
	MALE HEAD	WIFE OF MALE HEAD	FEMALE HEAD
	Topics per Person		
Lilongwe RDP	2.2	2.6	4.5
Phalembé	3.3	1.8	3.9
Karonga ADD	1.4	3.0	4.8
Ngabu ADD	2.2	1.1	3.0

on

The respondents were asked which of eleven major extension topics they had received advice (Table 23). For most topics (except home economics) MHHs received more advice than wives or FHHs.

Crop Husbandry was the most commonly taught subject for both men and women although wives received less advice than household heads. The difference in Crop Husbandry advice between male and female household heads in LRDP was not vast (76% versus 63%) although wives were contacted much less (47%) than their husbands. The wives in BLADD received much less advice on Crop Husbandry (11%) than both FHHs and MHHs. Large differences were found in NADD where 62% of male and 41% of female household heads received advice compared with only 22% of wives.

Only small differences were found between men and women for advice on vegetable growing. This could be because this subject is heavily emphasized by female extension agents. In LRDP 22% of female heads and wives learn vegetable growing compared with 25% of female household heads. For Phalombe RDP 29% of household heads learned this subject versus 12% of wives. The differences in KRADD and NADD were smaller. Land Husbandry and Agricultural Credit are two commonly taught subjects for which women tended to receive less instruction than men. In LRDP about half as many female heads and wives (34% and 28%) learned Land Husbandry compared with male household heads (61%). The gap was wider in Phalombe RDP with 11% of wives and 52% of male and female household heads learning about the subject. Only 34% of the women and 59% of the men surveyed in KRADD learned this subject. In NADDs and FHHs were similar (45% and 42% respectively) compared with only 20% of the wives.

Wives tended to receive about half the instruction on credit as their husbands. This may be due to beliefs that the household head should be responsible for credit within the family. In LRDP only about half the proportion of wives (33%) learned about credit as their husbands (64%), while FHHs were more aware (43%). A similar trend is seen in NADD (43% of FHHs 11% of wives and 26% of MHHs) and in KRADD (34% FHHs and wives versus 67% MHHs).

Home Economics was the one topic in which more women than men received advice. In LRDP 25% and 26% of male and female household heads were taught home economics versus 39% of wives. In KRADD 29% of the women but only 9% of the men learned this topic. In NADD home economics was taught to 26% of female household heads and 14% of wives but only 2% of male heads.

For all extension areas the average number of extension topics was more for men than women (Table 24). The average man received advice on more topics than the wife by 70% in LRDP, 120% in Phalombe RDP, 60% in KRADD and 170% in NADD. This data provides some evidence of the "poor success of the trickle-down effect" whereby husbands are supposed to inform their wives after learning a new agricultural concept.

### Training

Farmers training takes place at Day and Residential Training Centres (DTCs, RTCs), Farm Institutes (FIs) as well as in farmers clubs and women's groups. The Syllabus for Farmer Training at DTCs, RTCs and FIs is being used by many training centres. The Syllabus provides courses on Agriculture and Home Economics. An analysis of the Syllabus (see Section on Women's Programme) shows that DTCs have 25%, RTCs have 22%, and FIs have 16% agriculture in their home economics courses for women. Women are eligible for both Home Economics and Agricultural courses.

Generally, more women than men attend courses at training centres but fewer women than men participate in agricultural courses. The National policy for Women's Programmes set up in 1981 targeted at least 30% of the places in agricultural courses for women (part II, Annex 1). However, more men than women

are trained in agriculture because of the following reasons:-

1. extension workers and local leaders tend to recruit men rather than women,
2. husbands chose to go for the courses themselves rather than sending their wives,
3. some women farmers prefer home economics to agricultural courses because that is what they have been exposed to for a long time. (But where the initiative has been taken to offer agricultural training to women, they have appreciated the course and adopted the improvements at a rate similar to male farmers.)

Instruction takes place in the clubs and groups as well but fewer women than men are in agricultural farmers clubs and groups (dairy, stall feeding, pasture management). This is because men have dominated the clubs and groups for long and hence many women have been made to believe that they are for men. (Encouraging women to join the clubs and groups is under way in some areas). Women in women's groups are primarily taught by FHAs, DAs, and female TAs who teach mostly home economics. Although generally women receive less training on agriculture than home economics, the type they receive varies from area to area. Some women receive more agricultural training than others because they are involved in a particular enterprise. For example, there were no differences in the agricultural training on irrigated rice schemes for MBHs and FHHs concerning rice production. However, there was a difference concerning non-scheme crop with men receiving more instruction and inputs than women.

According to the 1979 - 82 attendance figures compiled by the Training Section, D.A.D. headquarters, more men than women attend courses at RTCs and FIs (Table 25). At national level it is difficult to know whether or not these figures reflect agricultural or home economics training because the attendance figures are not disaggregated by course attended; most of the courses women attend are on home economics.

Table 25. ATTENDANCE OF FARMERS BY SEX AT FIs AND RTCs FROM 1979/82

Year	No. of Centres supplying figures	No. of centres Missing	Total Men	Total Women	% Men	% Women
1977	15	7	7480	4714	61%	39%
1980	16	6	7500	7226	51%	49%
1981	15	7	7693	5940	58%	45%
1982	15	7	9729	4740	67%	33%

In WIADPs visits to the ADDs it was found that many training centres courses for women focus on home economics primarily with a few agricultural topics. Some ADDs have started putting in more agricultural topics on the women's courses. LADD targeted at least 30% of places in agricultural courses for women. Data from June to December 1982 show that 26% of the farmers who participated in agricultural courses were women; whereas, the figure for SLADD was 15%. Other ADDs might have also targeted women's participation in agricultural courses, but made no mention of it. WIADP advised the training sections to list male and females attendance by type of course (Agriculture or Home Economics) so that women's participation in agricultural course could be monitored.

The emphasis of teaching women more agriculture than home economics cannot be achieved by female extension workers alone because they are few and many of them are not confident to teach most agricultural topics. (See Women's Programmes Annex 6.) Table 26 shows that 10% - 14% of staff training goes to women. Since women compose about 10% of the extension service, they are receiving training in appropriate numbers. However, the type of training is not specified and the female staff usually receives more training in home economics than in agriculture. In the past year the refresher courses for FHAs have included as much or more agriculture as home economics. Some of the ADDs have begun to have FHAs and female TAs, take agricultural courses with male TAs.

TABLE 26. ATTENDANCE OF MEN AND WOMEN STAFF AT FIs AND RTCs, 1979/82

Year	No. of Centres supplying figures	No. of Centres with missing figures	Men	Women	% Men	% Women
1979	13	9	4413	582	88%	12%
1980	14	8	5292	717	88%	12%
1981	14	8	4196	669	86%	14%
1982	12	10	5076	589	90%	10%

## Credit Programmes

Farmers, when asked, specify that credit programmes and access to inputs are the ways that projects directly affect them. Usually, a significant component of RDP has to do with credit. The present policy is that farmers receive seasonal credit as club members. Medium term and livestock programmes (work oxen, stallfeeders, dairy animals and poultry) are given individually. Concerning seasonal credit, some ADDs allow married women to receive credit and others do not claiming it would be a burden on the family. In some areas men and women are club members and the family's need for credit inputs are determined by themselves.

Up to now there has been no way to know the number of women and men in clubs and receiving credit without going through the forms and tabulating the information as a separate exercise. WIADP did this for KRADD and LADD. Table 27 shows the number and percentage of women getting credit by type of inputs in KRADD. These figures were tabulated by going through records at headquarters and recognizing the females by their names. Twenty-three percent of all credit farmers are women. Most women get packages for CCA (23%), followed by Faya rice (19%), and S/A fertilizer. Women's credit for cotton insecticide packages, hybrid maize and 20:20:0 is low (6% and 7% respectively). No information was collected on medium term and livestock credit programmes.

TABLE 27 NUMBERS AND PERCENTAGES OF WOMEN OBTAINING CREDIT AND AMOUNTS OF INPUTS ISSUED FOR NON-IRRIGATED SCHEMES (COTTON, MAIZE, RAIN -FED RICE) IN KRADD 1981/82

	Amount of Inputs <sup>2</sup>													
			S/D/D		20:20:0		S/A		FAYA		OCA		MH12	
	W*	ALL*	W	ALL	W	ALL	W	ALL	W	ALL	W	ALL	W	ALL
Kaporo North	162	411	-	-	-	-	52	450	838	4425	-	-	-	-
Kaporo South	306	1298	0	56	-	-	111	682	363	1735	19	66	-	-
Karonga Centre	83	473	28	300	4	26	59	142	37	49	11	59	2	13
Karonga South	128	817	41	472	0	34	43	207	142	924	7	36	0	19
Total	679	2999	68	1028	4	60	265	1730	1380	7135	37	161	2	33
Percentage Women		23%		7%		7%		15%		19%		23%		6%

<sup>1</sup> Compiled by Mrs. J. Cunningham and the Credit Officer from credit disbursement records.

<sup>2</sup> SEVIN/DDT/DIM-One Unit = 50/30/10; 20:20:0-One Unit = 1 PKT; S/A-One Unit = 2 bags; FAYA-One Unit = 25kg; OCA-One Unit = 10kg; MH12-One Unit = 10Kg.

\* W = Women; ALL = All Farmers

74 In LADD WIADP designed a simple form asking for information on the numbers of men and women in clubs and taking seasonal, medium term and livestock credit. Data was collected at the EPA or Unit level and aggregated for project (see on LADD for detailed information).

The information in Table 28 shows that whereas 27% of the households are FHHs only 13% of those getting seasonal credit are women (both married and FHH). The record for medium term credit is abysmal. And although LRDP has had the stallfeeder programme since 1963, and has some women's demonstrations groups, the number of women participating is still small. Furthermore, the older project (LRDP) has fewer women taking seasonal and medium term credit and dairy animals than Dedza and Ntcheu.

TABLE 28 PERCENT OF WOMEN IN CLUBS AND CREDIT PROGRAMMES IN RDPS IN LADD, 1982/83

	LRDP	LNE	T/L	DEDZA	NTCHEU	TOTAL LADD
% FHH*	20%	20%	33%	39%	33%	27%
Club Membership	12%	11%	14%	21%	24%	14%
Seasonal Credit	12%	9%	10%	19%	24%	13%
Medium Term Credit	0.4%	0%	1%	2%	5%	1%
Stallfeeders	17%	0%	4%	5%	0%	15%
Dairy Animals	0%	0%	4%	6%	0%	0.5%

\*From NCSA 1980/81

Interestingly, the percentage of women getting credit in KRADD which has only 16% FHHs is higher than in LADD where it is 27%. As noted before the women getting credit may be unmarried as well as married, but the relationship to the percent of FHHs is given here to put the topic in perspective. In absolute numbers, the total amount of women who get credit in LRDP is twice as much as in the other four projects in LADD or KRADD (total).

It is suggested that methods of recruitment into programmes may be different for men and women, that women may not join clubs because they think they are for men, and that extension workers may have established routines which bypass women.

WIADP's study of the stallfeeders programme in LRDP documents some of these conjectures. The data show that men learn about stallfeeding through the extension staff who generally contact them at meetings or in their villages. Other male stallfeeders attend training courses; a few become interested by seeing their friends stall feed. Most women are not recruited by extension staff. They see others stallfeeding, especially other women. Only a few mention that they have been actively recruited by extension personnel. In one village, the village development committee chairman encouraged a number of women. In terms of women's interaction with extension staff, some women note that they have to convince the extension workers (some note that it took one to two years), and sometimes they are told they have to form a group first. This experience does not occur for the men.

A pilot programme in Phalombe RDP began with the premise (supported by the figures) that women were not participating in credit programmes and that unless their special needs and problems were taken into account, they would not be reached and would fail to turn up to meetings and participate in programmes. By re-educating the male extension workers, and giving rural women leadership training and organizing them into groups, the number of women taking credit increased twenty-fold. The problem solving methodology was used as well as the idea of forming credit groups rather than clubs so that there is no probationary period to qualify for inputs. If these strategies were not used, women's participation would not have increased.

TABLE 29 SEASONAL CREDIT TAKERS IN PHALOMBE RDP BY SEX, 1980/83

Year	Men	Women	% Women
1980/81	1099	54	5%
1981/82	2285	126	5%
1982/83	4518	1151	20%

Giving inputs to women is critical in the Phalombe area. As the information above documents Phalombe is a food deficit area as well as having high FHH<sub>3</sub>(35%). Since the women will be keeping most of their maize for food for their families, they cannot repay the credit from ADMARC sales. However, women are already paying back the credit from beer and minor cash crop sales. If RDP's are supposed to help the smallholder be self sufficient in food as well as provide food to the urban market, there is no better place to start than with these food deficit households and that means credit programmes which are aimed towards women.

#### B. Implementation of Project Programmes to Rural Women

Although SMSs at the ADDs are set up to administer Project Programmes to all farmers, there has been a tendency to rely on the Training and Women's Programmes Sections to address the needs of rural women. These needs have mainly been addressed by courses in home economics. It is noted that the programme has been successful judging from attendance figures. However, this type of training addresses only some of the needs of the rural women.

The need for recreational activities is addressed by such topics as embroidery and crotchetting. Sewing courses help the family save money by having a garment made at home. Cooking lessons provide new recipes which bring pleasure to the cook and the diners. Instruction in handicrafts is enjoyable and will improve the appearance of the house. However, in addition to these activities rural women have needs connected with their occupation as farmers. If they cannot grow or purchase item, the new recipes will do them no good. Without cash to purchase materials, they cannot sew or embroider. Without adequate food supplies, their families will suffer nutritionally and will lack energy for farming and other tasks.

The section on Project Services to Rural Women: The Present situation provides some evidence on the extent to which women participate in and receive the services of rural development projects. It was seen that they receive fewer extension contacts, less agricultural training and credit than is com-

mensurate with agricultural needs and contribution. The following are suggestions for remedying the situation.

To begin to correct the emphasis of including women in all aspects, the SMS and field staff have to participate. The work cannot be left to the Women's Programmes Officers alone.

Any programme that impacts on farmers may have consequences for women. What is needed is to examine the programme and ask:

- a) How can women fit in?
- b) What are the constraints to their participation?
- c) What can be done to alleviate these constraints?
- d) How will their participation/or lack of participation be known?

Any special characteristics women may have (e.g., shyness, busy schedules, need to be at home, lack of leadership skills, etc.) must be taken into account. In addition special measures and strategies may have to be devised to ensure participation (if this were not the case then women would be participating already).

#### Section and Project Programmes in the ADDS

WIADP interviewed and reviewed programmes of management, SMSs, and some Project Officers at ADD level. Their activities were noted and the above questions were posed. Subsequently a report was prepared listing each section or project and suggestions for including women in their programmes.

LADD, for example, took the report and with the WIADP team considered the suggestions. Some were agreed upon to be implemented. These are presented in Annex 2: "How LADD Sections and Projects can Incorporate More Women Farmers in Their Programmes." The following components are covered:

- Management Unit Work Plan and Internal Budget
- Women's Programmes Section
- Training Section
- Crops Section
- Land Husbandry Section
- Evaluation Section
- Rural Industries Section
- Audio/Visual Aids Subsection
- Research and Trials Section
- Marketing Section
- Land Allocation Section
- Each Rural Development Project

It should be noted that most of these sections can be found in the other ADDs, although some ADDs have sections unique to them (e.g., LADD has Land Allocation). Nevertheless, the methodology is the same for each section and project.

\*SIADD, KADD, BLADD, LADD, WADD and IWADD were already contacted. MZADD and KRADD will be interviewed later this year. Thus far reports have been circulated to SIADD, KADD, BLADD and LADD.

## Reporting Format and Monitoring Procedures

Separate mention must be made concerning the question of how the participation or lack of participation of women in programmes will be known. Data collected from the field on extension contacts and farmers' uptake of services and inputs is recorded on monthly, quarterly and yearly reporting formats submitted from:

- a) EPAs, PHAs, CA\* to DOs and SMSs
- b) DOs to Project Officers (POs)
- c) POs to Evaluation and management units
- d) EV. Unit/MU to SMSs/MO.

If the information is recorded at the field and each subsequent level, then the information can be tabulated and women's and men's participation monitored. Therefore, suggestions were made concerning reporting formats for each section.

The most important reporting format for a project or ADD is the Extension Activities Report\* which collects data on extension contacts (attendance at block demonstrations, club visits, meetings and committee, visits to individuals and schools). Club membership, credit borrowers (seasonal, medium term, livestock) training courses, extension aids contacts, etc. From this format, the basic information from the field is collected. It is critical that this format be disaggregated by sex, that is, in terms of the number of men and women. LADD in conjunction with WIADP designed two sets of forms which were approved by the ADD.

Extension Activities Report Form A will be used by EPAs while Form B will be used by DOs, Project Officers and Management. Data on attendance, meetings, committees at all levels, as well as individual and school visits will note the number of men and women. A credit breakdown form will report on club membership, seasonal credit by crop, medium term credit, stallfeeders, amounts paid, and balance outstanding by sex. The formats will be utilized by all Projects thereby making extension information comparable among EPAs and Projects.

\*Some ADDs have separate forms for the various components.

## Annual Work Plans

Extension personnel at all levels prepare annual work plans to guide them in programme implementation. Many work plans are prepared in an automatic way with many people merely repeating earlier objectives, required actions and methods from the year before. Many of these are too general and lack ways of being implemented. Often the activity calendar and/or Ulendo Programme (travel schedule) do not correlate much with objectives and methods. For example:

### Objectives:

"More farmers will participate in "farmers" clubs."

### Required Action:

"Farmers will be encouraged to form clubs."

### Methods:

"Visits and meetings."

Most work plans do not target women. The exceptions are the Training and Women's Programmes Section but usually only as regards training courses and PHA programmes. In order for women to be included in the implementation of programmes it is suggested that strategies which specifically are directed towards them be written into work plans. Perhaps even more important is that work plans suggest creative, workable and specific strategies (action plans) that will reach farmers. The strategies should relate to the objectives. They should be concrete, detailed and capable of being carried out by the staff. Furthermore, monitoring procedures should be specified.

A brief example of the methodology using farmers' clubs is given here.

### Objectives

Participation of men and women in farmers clubs will increase in general. The target is two more clubs per EPA. Participation by women will increase from the current 10% to 20%.

### Strategies (Action Required)

#### ADD Level:

1. Management, SMSs, Project Officers (POs) will discuss the need to increase women's participation in farmers clubs. Localized constraints will be pinpointed.
2. Evaluation Officer, SAEO and WPO will collect figures on present rate of participation of women and men at EPA level and by Project.
3. Training Officer will be informed that various refresher courses should have short sessions on a ) extension methodologies for increasing women's participation in clubs, and b) club procedures and regulations, etc.
4. Formats for recording the number of members by sex will be prepared and utilized in order to monitor the increase in women's participation.

#### RDP Level:

1. POs and Development Officers (DOs) will meet to discuss the same issues as at ADD level. They will formulate specific recruitment methods that can be used in localized areas.

EPA Level:

1. DOs will train their staff (FAs, FAs, CAs, etc.) in these recruitment methods\* and in the new reporting formats.
2. Local leaders and existing club office bearers and members will explain the need to have women join clubs.
3. Male club members will be requested to discuss membership (either full or auxiliary) with their wives.
4. Households headed by women will be specifically contacted by extension workers.

The more detailed the plans are, the easier it will be to see what is to be done and the sequence of events. It might be desirable for very detailed plans to be prepared at first. They can then be condensed.

WIADP has designed a format for work plans that provides a way of transforming a policy to strategies for action. Extension workers at any level can utilize the format. The components are as follows:

Policy (MOA)

Major Problems (In general)

Current Situation (Localized)

Operational Objectives (Targets)

Strategies (Plan of Action - these should be specific, detailed, and operationalizable. Each point should be listed on the Activities Calendar.)

Information/Materials Needed

Staff Involved (Cooperating Sections)

Budget

Monitoring

Evaluation

Activity Calendar by month. The strategies should be listed point by point. During the following year, the points may be repeated.

The following detailed annual work plans provide some examples that could be used by the sections. They may also be used as project components. The first is on Credit and was prepared by Dr. Spring and the Women's Programmes Officers at the Extension Management Seminar. It contains an Activity Calendar. The second on Land Husbandry was prepared by Miss Evans of Phalembé RDP. The third work plan was prepared on Animal Husbandry by Miss Kayuni of WIADP.

\*See General Extension Approach.

ANNUAL WORK - PLAN / CREDIT

POLICY OBJECTIVES	MAJOR PROBLEMS	CURRENT SITUATION	OPERATIONAL OBJECTIVES
<p>To help the rural family increase its agricultural food production through increased extension efforts.</p>	<ol style="list-style-type: none"> <li>1. Most women are not aware of the credit packages at their disposal.</li> <li>2. Credit regulations do not give women access to credit.</li> <li>3. Most women are not in clubs, therefore, they get less credit.</li> <li>4. Women receive less training in agricultural production than men and have little or no incentive to take medium term credit.</li> </ol>	<ol style="list-style-type: none"> <li>1. Very few women take seasonal and even fewer take medium term credit.</li> <li>2. Participation of women in stall-feeding and dairy programmes is low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Women will take seasonal and medium term credit and up to 25 or 30% of seasonal credit farmers will be women.</li> <li>2. Women will comprise 5-10% of medium term credit borrowers.</li> <li>3. The percentage of women doing stallfeeding in the area will increase to 25% of the total.</li> </ol>

ANNUAL WORK-PLAN

STRATEGIES	INFORMATION/MATERIALS NEEDED	STAFF INVOLVED/COOPERATING SECTIONS	MONITORING	EVALUATION
<p><b>ADD LEVEL:</b></p> <p>1. WFO will obtain facts and figures from credit, marketing and Animal Husbandry Officers on the number of women obtaining seasonal and medium term credit, types of stall-feeders and dairy-animals and farm implements.</p> <p>2. WFO will hold a meeting at ADD level with PM Credit Training and Marketing Officers so they can be aware of the plan to involve more women in credit and to train male and female staff on this topic.</p> <p>3. WFO in conjunction with farm management, Credit and Evaluation Sections to work out gross margins so that proper packages are recommended to women.</p> <p>4. In ADDs with stall-feeding and dairy projects, the WFO will liaise with the Animal Husbandry Officer and Beef Production Officer on how stallfeeding and dairy projects should be carried out to include more women.</p>	<ol style="list-style-type: none"> <li>1. Data on numbers of women taking credit by time and amount.</li> <li>2. Credit regulations and financial packages.</li> <li>3. Credit manuals</li> <li>4. Handouts on Credit</li> <li>5. Application forms and receipt books should be available.</li> <li>6. Book RTCs for training courses.</li> <li>7. Information on markets available.</li> <li>8. Transport.</li> <li>9. Technical information from Animal Husbandry and farm machinery sections.</li> <li>10. Examples of packages.</li> </ol>	<p>MINISTRY - WFO, CO</p> <p>ADD LEVEL- WFO, ANPO, TO, CO, EO, RO, SIO, POB</p> <p>EPA LEVEL- DOs, FAs, CAs, FAs, Group and Club Leaders, Village Leaders.</p>	<p>Information on the following will be collected:</p> <ol style="list-style-type: none"> <li>(a) Number of FAs, FAs, CAs, trained.</li> <li>(b) Number of women and local leaders trained on credit procedures.</li> <li>(c) Number of groups and clubs.             <ol style="list-style-type: none"> <li>i) Number of women in groups and clubs.</li> </ol> </li> <li>(d) Number of women receiving seasonal and medium term credit by type of package, implement or animals.</li> <li>(e) Problems encountered during training.</li> <li>(f) Number and types of follow-up done by field staff.</li> <li>(g) How much has been recovered and number of defaulters.</li> </ol>	<ol style="list-style-type: none"> <li>1. The data collected by the monitoring procedure will be compiled and analyzed.</li> <li>2. Extension staff reports and comments will be collected.</li> <li>3. Problems encountered by:             <ol style="list-style-type: none"> <li>(a) Staff and</li> <li>(b) Women farmer and</li> <li>(c) In general administration of credit will be studied through surveys.</li> </ol> </li> </ol>

Strategies continued on the next page.

S T R A T E G I E S

B U D G E T

5. WPO will book RTC for meeting and courses, work with Training Officers to give courses (see below) and work with S.E.O. to inform DOs of these meetings and courses.
6. Tell Credit Officer and PM that there is a major up take in credit anticipated and there should be adequate funds and inputs.

1. RTCs (food, accommodation)
2. Transport
3. Stationery.

TRAINING:

1. FHAs and FAs will receive training on credit procedures, and management, club formation and women will be introduced to the issue of women and credit.
2. Credit Assistants will also be introduced to the idea of women and credit, processing women's applications plus issuing packages and implements.

EFA LEVEL

1. FAs and FHAs do fact finding to find out what women really need using the 3-step method.
2. FAs and FHAs work with local leaders to form women's groups and clubs and/or increase number of women in mixed ones.
3. FAs and FHAs train local leaders about credit procedures and packages and work with them to recruit women for training and procedures and packages.
4. FAs and FHAs register women for credit (both seasonal and medium term). FAs and FHAs check with CAs to be sure the inputs, animals and implements are available.
5. FAs and FHAs demonstrate proper use of <sup>the</sup> inputs to women taking credit.
6. FAs and FHAs do follow-up with women to see if they are using inputs correctly (using spot checks on individuals, and demonstration gardens, talking to farmers on what they did, etc.

ACTIVITY CALENDAR

ACTIVITY	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1. Collection of facts and figures from CO, MO, AHO.												
2. Discuss issue with PM, EO, Mo, AHO, etc.				16								
3. Book RTCs												
4. Work out gross margins with EO. Proper packages with CO												
5. Hold meeting with specialists												
6. Inform DOs												
7. Hold courses for FAs, FHAs, CAEs												
8. Local Leaders' courses												
9. FAs, FHAs, do fact funding-3-step method												
10. Group formation												
11. Credit Registration												
12. Proper use of inputs be demonstrated												
13. Issue Credit inputs												
14. Spot checking of gardens												
15. <u>MONITORING</u> Collect figures on number of women and men and type of packages				11								
16. Evaluate the programme												
17. Repeat meetings, courses group formation, checking etc. in following fiscal year												

ANNUAL WORK PLAN \* LAND HUSBANDRY\*

POLICY OBJECTIVES	MAJOR PROBLEMS	CURRENT SITUATION	OPERATIONAL OBJECTIVES
<p>To promote good land husbandry practices for improved, prolonged and sustained crop productivity.</p>	<ol style="list-style-type: none"> <li>1. There is widespread soil erosion yet soil conservation advice is going to a small number of progressive male farmers.</li> <li>2. 90% of soil erosion can be controlled by biological conservation measures and only 10% by physical measures. Women think that soil conservation involves heavy manual work constructing bunds, storm drains, waterways and marker ridges. Yet the most important measures can be carried out by women who take on the majority of the garden work, through good crop husbandry practices.</li> <li>3. There is little mention of planning and implementing soil conservation programmes at RTC's and DTCs. Few people are aware of benefits and help to be gained. What little advice offered usually goes to progressive farmers who make individual requests.</li> <li>4. Physical conservation measures (primarily making marker ridges) has been done on an individual basis. This can increase soil erosion in neighbours gardens.</li> <li>5. In the past, women have only been marginally involved in agricultural extension activities. They have had even less chance of participating in conservation programmes.</li> </ol>	<ol style="list-style-type: none"> <li>1. Women are not aware of or are being involved in any soil conservation programmes.</li> <li>2. Physical conservation measures have been done on individual gardens at owners request (usually only progressive male farmers who are aware of service).</li> <li>3. No special programmes are taking place for biological conservation.</li> <li>4. Mass conservation (i.e. physical and biological measures) almost non-existent</li> </ol>	<p>Mass conservation should be carried out on a village basis involving both men and women.</p> <ol style="list-style-type: none"> <li>a) Biological measures</li> <li>b) Physical measures (i.e. catchment conservation).</li> </ol> <p>a. <u>Biological</u></p> <p>Especially relevant to women and possible for them to carry out. To promote healthy quick ground cover.</p> <ul style="list-style-type: none"> <li>- bury stalks.</li> <li>- good land preparation</li> <li>- timely planting</li> <li>- good plant population</li> <li>- Encouraging inter-planting.</li> <li>- use of fertilizer and manure.</li> <li>- Fire control.</li> </ul> <p>b <u>Catchment conservation</u></p> <p>critical villages tackled first-others in turn.</p> <p>Communally carried out on village basis</p> <p>Therefore women are encouraged to be involved as work is shared on constructing storm drains and marker ridges.</p>
<p>*Prepared by J.E. Evans Phalombe RDP, 1983.</p>			

## STRATEGIES

### ADD LEVEL

1. WPO and LHO to gather facts and figures from LH section on conservation works taking place in ADD and numbers of women involved.
2. WPO to hold meeting with PM, LH, Training and Senior Agriculture Extension Officers from headquarters and Projects on:-
  - mass soil conservation programmes
  - importance of involving women.
3. L.H. section produces analysis of situation in each Project, pin-pointing critical areas.
4. WPO, SAEO, LEO, PO's work out strategy of tackling soil conservation and involving women:  
LH staff assessed to see if numbers are adequate to carry out programme.
5. WPO, TO, SAEO and LHO to plan staff courses to implement programme (Book RTC's).

### Project level

Discussions to be held at Project level with PO, WPO, and ADO's on strategies to implement programme in Project.

### TRAINING

1. LH Field Assistant to receive
  - Back ground to importance of involving women.
  - Mass conservation techniques.
  - New extension approach.
2. FAs/FHAs receive two day course
  - reviewing new extension approach and how LH programmes fit in.
  - Importance of involving women in mass conservation techniques and use of "problems solving method".
3. Training continued:  
After discussions at village level, women sent for leadership training to DTC and how to involve other women in mass conservation programmes.

### EPA LEVEL

1. Soil conservation to be raised at EPA, Section meetings and ways of tackling problems. Villages are earmarked for catchment conservation measures.
2. Importance of involving women in programme discussed and planned.
3. Soil erosion problems discussed in detail using 'problem solving method'
  - What is the problem?
  - What can be done?
  - How can we do it?Ensure that women participate fully.
4. Implementation: carry out biological and physical conservation measures.

INFORMATION AND MATERIALS	STAFF INVOLVED	BUDGET	MONITORING	EVALUATION
<p>1. Report from Land Husbandry section on soil conservation measures taking place in each Project area. Earmark areas where measures are critically needed,</p> <p>2. Handouts produced by LH section on mass conservation techniques and programmes, for project field staff (LH, FA, DO's and FHA's)</p> <p>3. Ensure that staff have following equipment: <u>LHFO/LHFA:</u> Tripod, staff, quickset level, abney level, prismatic compass, land metric chain.</p> <p>4. <u>FA/FHA</u> hand level and land metric chain.</p>	<p><u>ADD</u> PM, TO, SAEQ, WPO, AWPO, LHO, EVO.</p> <p><u>PROJECT</u> PO, APO, DO, ADO, LHFA, LHFA, + FA, FHA.</p>	<p>Staffing Transport Courses Equipment.</p>	<p>Information on the following will be collected.</p> <ol style="list-style-type: none"> <li>No. of LFHAs, FAs, FHAs trained</li> <li>Seminars held at project level for staff.</li> <li>No. of women leaders trained</li> <li>Villages where biological conservation measures are taking place.</li> <li>No. of women and men following biological soil conservation measures.</li> <li>No. of villages where conservation measures taking place.</li> <li>No. and length of bunds. - No. and length of marker ridge</li> <li>No. of Men and Women taking part in constructing communal structures.</li> <li>No. of male and female headed households where ridge alignment has been undertaken.</li> </ol>	<ol style="list-style-type: none"> <li>Monitoring information collected and compiled by I.F. EVO, WPO to assess the uptake of advice. -Womens involvement. -problems encountered</li> <li>Discussions to be held by SAEQ, WPO, TO, LHO, POs on how programme should be improved and extended to other villages</li> <li>Long term evaluation procedure set up by EVO and LHO assessing improvement of soil conservation measures and lessening of erosion due to mass conservation measures.</li> </ol>

ANNUAL WORK PLAN: ANIMAL HUSBANDRY

POLICY OBJECTIVES	MAJOR PROBLEMS	CURRENT SITUATION	OPERATIONAL OBJECTIVES
<p>To reach self sufficiency in animal production by improving the productivity of livestock.</p>	<ol style="list-style-type: none"> <li>1. There is little training of women in dairying, stall feeding, pasture improvement and establishment, and small ruminants production e.g., rabbits.</li> <li>2. Most women are not aware of regulations and procedures for obtaining stall feeders, dairy animals and oxen on credit.</li> <li>3. Women know little livestock diseases control and prevention.</li> <li>4. Many women are not included in ex-training and ploughing programmes.</li> <li>5. Most women are not aware of regulations and procedures for obtaining oxen on credit and purchasing poultry.</li> <li>6. Women have not improved their way of raising chickens in spite of the long time that the topic has been taught to rural women.</li> </ol>	<ol style="list-style-type: none"> <li>1. Few women farmers keep stall feeders, dairy animals, Mikolongwe chickens and small ruminants</li> <li>2. Few women farmers have established pastures and few are in pasture improvement groups.</li> <li>3. No special programmes are taking place for small ruminants.</li> <li>4. Few women are involved in ex training programmes.</li> <li>5. Few women obtain oxen on credit and purchase chickens.</li> <li>6. Most MHHs and FHHs keep their poultry on free range system.</li> </ol>	<ol style="list-style-type: none"> <li>1. At least 30% of the farmers attending livestock training will be women.</li> <li>2. Women should be taught about regulations and procedures in obtaining stall feeders, and dairy animals on credit in their agricultural animal husbandry courses.</li> <li>3. Women should be taught about small ruminants production and the enterprise costed out for them.</li> <li>4. At least 30% of the farmers attending ex-training programmes should be women.</li> <li>5. The local leaders, TAs and PHAs should recommend that more women, especially FHHs, obtain oxen on credit. Women should be taught about regulations and procedures in purchasing Mikolongwe chickens and obtaining oxen.</li> <li>6. Animal Husbandry section should find out what the farmers need to learn in poultry production and why most of them have not improved their way of raising poultry.</li> </ol>

## STRATEGIES

### ADD LEVEL

1. Data on number of women doing stall feeding, dairying, pasture management, ex-training courses will be collected (WPOs, AHOs, EVOs, TOs).
2. AHOs, Animal Husbandry Assistants and WPOs/AWPOs to discuss the reasons and causes for the small number of women in stall feeding, ex-training, pasture improvement and poultry programmes, and devise strategies for increasing the number.
3. TOs, SEAOs, WPOs/AWPOs and AHOs will hold meetings to discuss ways of increasing women's recruitment for agricultural and special animal husbandry courses e.g., ex training to at least 30% of the farmers attending the courses.
4. The WPOs/AWPOs and TOs will hold meetings with the FHAs and FAs to talk about the importance of recruiting more women for the special animal husbandry/agricultural courses and strategies for recruiting more women.
5. AHOs and WPOs/AWPOs will hold meetings to discuss strategies for increasing the importance of small ruminants in farmer training. This information will then be discussed with FAs and FHAs so they can include the topics in their courses.
6. AHO will prepare technical materials on small ruminants for extension staff.
7. Animal Husbandry and Evaluation sections will conduct a survey to find out what men and women need to learn in poultry production, why most of them have not improved their ways of raising poultry and if there is any room for improvement.

### TRAINING

1. The AHOs will teach the FHAs and refresh the FAs on the regulations and procedures for purchasing Mikolengwe chickens, for obtaining stall feeders, dairy animals, oxen and pasture seeds on credit and on forming stall feeding, dairy and pasture management groups.

## STRATEGIES

### E.P.A. LEVEL

1. FAs and FHAs will find out what women want in terms of livestock programmes. (stall feeding, dairying, raising small ruminants, Mikelongwe chickens, etc.), their attitude towards small ruminants and number of men and women owning cattle and small ruminants. (WFOs and AHOs will ask the EVOs to find out the number of men and women owning cattle and small ruminants).
2. FHAs and FAs will ask women farmers owning cattle at group meetings and individual visits about the possibility of stall feeding their own animals, problems they are facing or would face and how they think the problems would be solved.
3. FHAs and FAs will find out from men doing stall feeding and dairying, about the possibility of their wives starting the same activities.
4. FHAs and FAs will notify and discuss with the local leaders at DTCs/village meetings, the importance <sup>of</sup> and strategies for including more women in stall feeding, dairying, ox-training and pasture management programmes.
5. Depending on the area, FHAs, FAs and local leaders will together hold group meetings with the male and female farmers to give talks on importance of stall feeding, dairying, ox-training, pasture management and establishment, and the strategies for increasing the number of women in these programmes.
6. The FAs and FHAs with the help of local leaders will recommend more potential women for stall feeding and dairying programmes and recruit more women for courses on ox-training and pasture management using strategies devised at the ADD level by the TO, WFO/AWFO, AHO and SAEO.
7. The FAs, FHAs and local leaders will recommend more women to obtain exen on credit especially the FHHs.
8. The FHAs, FAs and Local Leaders will conduct meetings with male and female farmers to talk about the importance of both men and women attending ox-training and will recruit more women for the ox training courses (not less than 30% of the farmers attending the course).
9. From the survey, AH Section should come up with ways of improving poultry training and the topic's content to women and men.

INFORMATION/MATERIALS NEEDED	STAFF INVOLVED COOPERATING SECTIONS	MONITORING	EVALUATION	BUDGET
<p>1. Data on number of women and men keeping stall feeding animals, dairy animals, small ruminants, Mikolongwe chickens, owning cattle, involved in pasture establishment groups and trained in ex-ploughing.</p>	<p><u>ADD level</u> SAEO WFO/AWFO AHO EVO TO</p>	<p>The following information to be collected:</p> <p>1. Number of women and men participating in stall feeder, dairy, Mikolongwe chickens and small ruminants programmes.</p>	<p>1. Monitoring information will be analysed.</p>	<p>transport Course costs</p>
<p>2. Handouts on regulations and procedures for obtaining credit steers and dairy animals and for purchasing mikolongwe chickens.</p>	<p><u>EFA level</u> FHAs FA DCs</p>	<p>2. Number of men, women and local leaders (male and female) trained in managerial regulations and procedures in obtaining steers, dairy animals, oxen and pasture seeds on credit and for purchasing <u>mikolongwe</u> chickens.</p>	<p>2. Extension staff reports on animal husbandry/livestock will be collected and the data/information will be compiled and analysed.</p>	<p>papers pens stencil.</p>
<p>3. Handouts on stall feeding, dairying, chicken production, small ruminants production, pasture management and establishment.</p>		<p>3. Number of FAs and FHAs trained.</p>	<p>3. Problems encountered by staff and women farmers in obtaining and managing of stall feeders,</p>	
<p>4. RTCs and DTCs for training courses, and ADD conference room for meeting.</p>		<p>4. Deaths, diseases of the farmers' animals and causes.</p>	<p>dairy animals, oxen, small ruminants, and mikolongwe chickens should be compiled from extension workers' reports and discussed with the AHO, TO and SAEO on how to combat them.</p>	
<p>5. Transport</p>		<p>5. Problems encountered by the extension workers during the training and follow up.</p>		
<p>6. Learn why most men and women have not improved their ways of raising poultry.</p>		<p>6. Number and types of follow ups done by FAs and FHAs. Gross margins obtained by men and women.</p>		
		<p>7. Number of men and women involved in ex-training programmes.</p>		

## Agro-Economic Survey Data

### Labour distribution of farm operations in Masambanjati\*

Daily activities in Khungwe and Chalingane villages in Chief's Area Msabwe in Thyolo District were recorded by enumerators from 1 September 1969 to 31 August 1970. Sixty households were monitored with labour requirements for various field operations in several cropping systems observed and recorded.

In Masambanjati, there were 51 male heads of household, 9 female heads and 51 wives in the 60 households studied. The farm size ranged from 2.0 - 4.0 hectares, with 35 farms being 1.0 - 1.8 hectares in size. All of the farms in this area had more than one garden (233 gardens on 60 farms) and most gardens were intercropped. The cropping systems were primarily maize-based, intercropped with legumes, bananas, groundnuts, cassava, millet, and other fruits. Due to the different degree of complexity of the cropping systems, the labour requirements for land preparation, planting, weeding, fertilizing, and harvested varied greatly.

Females performed most of the work connected with crop production (see Table 1) doing 38.1% of the field work and 41.4% of the after harvest work. Males and children over 12 performed between 20% - 28% of this work. The greatest proportion of men's time was spent marketing the produce. Children of all ages were primarily responsible for the care of livestock. By months, 35.5% - 41.4% of the hours spent on field work operations were done by females (see Table 2). From September through December, children over 12 accounted for one-third of the hours. Males averaged 28.1%, peaking at 34.4% in March. Labour was hired for field work all year round but the months of February through April were when peak use was made of hired labour. It appears, therefore, that women are always busy with some sort of field work throughout the year while men have some months in which they are free of work.

In order to understand what is entailed in the field work operations, the category of operation, and the cropping system involved must be broken down in more detail. The simplest cropping system encountered was maize monoculture (Table 3). The categories of operation for this cropping system (and all subsequent ones) were: garden preparation, planting, weeding, fertilizing, and harvesting. Most of the garden preparation, planting and weeding was done by females; males did most of the fertilizing and harvesting was shared almost equally by males (39.8%) and females (40.1%). Hired labour and children under 12 were used only slightly for land preparation and weeding.

The next cropping system, very similar to maize monoculture in crop canopy, was maize and millet (see Table 4). Again hired labour and young children were used only slightly, probably because these are crops for home consumption. Females again spent the most hours on land preparation, planting, weeding and harvesting but were not involved in fertilizing at all. Children over 12 participated in all phases of operations.

Maize and cassava labour requirements (Table 5) differ in that less time is spent in weeding (165 hours) and fertilising (3.9 hours) compared to maize monoculture (217.3 and 4.2 hours) or maize-millet (205.4 and 4.6 hours). Females and males fairly equally divided the task of garden preparation and weeding with females being responsible for over half of the planting and males for 63.3% of the fertilizing (3.1 hours). Females did most of the harvesting, with males and children over 12 contributing 27.3% and 24.0% of the labour. Again hired labour and small children were not used much.

Maize and groundnuts and maize and legumes are two very similar cropping systems (Tables 7 and 8) with two major differences: hired labour was used in all categories of operation in the maize and groundnut system and only for land clearing, fertilizing and harvesting in the maize-legume system and in the maize legume system, over twice as much time was spent on fertilizing. In both of these cropping systems, females performed the majority of all tasks (except where children

\*Based on data from L.S. No. 5 for Masambanjati, Thyolo District, November 1971.

children over 12 did 39% of the planting of the maize legume system).

The amount of time spent in the garden preparation dropped considerably with the maize/legume/banana gardens (from 321 hours for maize alone to 24.7 hours) (see Table 8). Bananas take several years to mature and it must be assumed that the maize and legumes were interplanted into an already existing banana stand. Weeding of this garden took more time than any other system (256.4 hours). Tasks were shared almost equally by males and females, except for harvesting where females did 40.5% of the work. Hired labour and children were used for most operations.

In the maize/cassava/legumes system, females again spent the most time on all tasks (see Table 9), almost 40% for all categories. Male labour was used primarily for planting (39.4%) and weeding (36.5%); children over 12 were used for fertilizing (21.5%) and harvesting (36.3%). Similar to the maize groundnuts and maize legumes systems, only women did most of the fertilizing (45.7%). Hired labour was used for every operation except fertilizing, young children had minimal input.

The cassava sweet potato system (Table 10) was slightly different in that the crops were not fertilized and hired labour was used for land preparation on a basis almost equivalent to the female labour (29.4% vs 32.7%). Women and children over 12 did much of the planting and harvesting, while male participation was greatest for weeding.

In general, while there does not appear to be solely male tasks or female tasks, males participated more in land preparation and in fertilizing. In every instance females did most of the planting, weeding and harvesting. Out of all the categories of work (Table 1), women spent 45140 hours, men spent 38411 hours, under 11 spent 1590. Women therefore spent more time than any other category (57.6%) on agricultural labour of all types.

Report No. 5

MASAMBANJATI: A sample farm management survey of agricultural households near Masambanjati in Thyolo-District, Malawi, November, 1971

Table 1: Categories of Work and Type of Worker (%)

Category Worker	Field Work		After Harvest		Marketing		Livestock	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	29025	20.1	1008	22.5	8378	56.6	-	-
Females	39363	38.1	1855	41.4	13913	26.4	90	11.5
Ch.r.12+	23994	23.2	914	20.4	2002	13.5	218	37.5
Hired Labour	10122	9.8	573	12.1	173	1.2	-	-
Ch.r.11-	781	0.8	135	3.0	328	2.2	354	60.9
Total	103285	100	4485	100.0	14794	99.9	581	99.9

\* Adapted from A.E.S. Report No. 5 P. 10

Table 3: Distribution of Maize Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre)

Category Worker	Garden Preparation		Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	81.8	25.5	11.5	32.9	78.4	36.1	3.4	54.8	22.2	39.8
Females	121.9	38.0	14.9	43.7	97.9	45.1	2.8	45.2	22.4	40.1
Ch.r.12+	105.3	32.8	7.3	22.3	34.7	16.0	-	-	9.7	17.4
Hired Labour	4.2	1.2	-	-	3.7	1.7	-	-	-	-
Ch.r.11-	7.9	2.5	7.7	2.0	2.6	1.1	-	-	1.5	2.7
Total	321.1	100.0	34.9	99.9	217.3	100.0	4.2	100.0	55.8	100.0

\* Adapted from A.E.S. Report No. 5 P. 18

Table 4: Distribution of Maize/Millet Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre)

Category Worker	Garden Preparation		Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	64.5	30.7	10.4	27.4	39.1	19.0	1.6	34.8	18.5	22.4
Females	75.4	35.9	17.2	45.3	87.0	42.8	-	-	47.4	57.3
Ch.r.12+	58.7	28.0	10.4	27.3	75.3	36.7	.8	17.4	14.2	17.2
Hired Labour	9.8	4.7	-	-	3.1	1.5	2.2	47.8	2.6	3.1
Ch.r.11-	1.6	0.7	-	-	-	-	-	-	-	-
Total	210.0	100.0	38.0	100.0	205.4	100.0	4.6	100.0	82.7	100.0

\* Adapted from A.E.S. Report No. 5 P.19

Table 5 : Distribution of Maizo/Cassava Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) \*

Category Worker	Garden Preparation		Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	73.5	34.2	6.5	28.0	63.8	38.5	3.1	63.3	16.1	27.9
Females	78.8	36.6	11.7	50.4	63.7	30.5	10.8	46.3	27.4	47.4
Ch.r.12+	47.0	21.8	5.0	21.6	28.5	17.2	1.0	20.4	13.9	24.0
Hired Labour	13.5	6.3	-	-	6.7	4.0	-	-	-	-
Ch.r.11-	2.4	1.1	-	-	2.9	1.8	-	-	1.4	0.7
Total	215.2	100.0	23.20	100.0	165.60	100.0	3.9	100.0	57.8	100.0

\* Adapted from A.E.S. Report No. 5, P. 20

Table 6 : Distribution of Maizo/Groundnuts Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) \*

Category Worker	Garden Preparation		Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	51.6	21.4	9.7	24.9	49.2	30.7	0.9	17.3	9.9	15.5
Females	85.2	35.4	14.2	36.5	52.7	32.8	1.7	32.7	28.3	44.3
Ch.r.12+	76.3	31.7	13.1	33.7	39.1	20.5	1.4	26.9	18.1	28.3
Hired Labour	27.1	11.3	1.7	4.4	25.0	15.6	1.1	21.2	7.6	11.9
Ch.r.11-	0.4	0.2	0.2	0.5	0.5	0.3	0.1	1.9	-	-
Total	240.6	100.0	38.90	100.0	160.5	100.0	5.2	100.0	63.9	100.0

\* Adapted from A.E.S. Report No. 5, P. 21

Table 7 : Distribution of Maizo/Logumos Garden Labour Requirements Category of Operation and Type of Labour (hours and % per acre) \*

Category Worker	Garden Preparation		Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	53.3	19.6	11.1	24.9	47.6	21.9	3.4	26.6	11.4	14.7
Females	117.0	43.0	16.1	36.1	88.6	40.7	5.5	43.0	45.5	58.7
Ch.r.12+	97.6	35.9	17.4	39.0	80.0	36.8	2.7	21.1	18.5	23.9
Hired Labour	4.0	1.5	-	-	1.2	0.5	0.3	2.3	1.8	2.3
Ch.r.11-	-	-	-	-	0.2	0.1	0.9	7.0	0.3	0.4
Total	217.9	100.0	44.6	100.0	217.6	100.0	12.8	100.0	77.5	100.0

\* Adapted from A.E.S. Report No. 5, P. 22

Table 8 : Distribution of Maize/Legumes/Bananas Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) \*

Category Worker	Garden Preparation		Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	77.7	33.4	17.4	32.5	94.6	36.9	3.2	41.6	26.3	25.2
Females	83.7	36.0	20.2	37.8	95.5	37.4	1.9	24.7	42.3	40.5
Ch.r.12+	44.5	19.1	11.6	21.7	30.9	12.0	0.3	3.8	18.8	18.0
Hired Labour	25.1	10.8	3.9	7.3	32.4	12.6	2.3	29.9	16.5	15.8
Ch.r.11-	1.6	0.7	0.4	0.7	3.0	1.1	-	-	0.4	0.4
Total	24.7	100.0	53.5	100.0	256.4	100.0	7.7	100.0	104.3	99.9

\* Adapted from A.E.S. Report No. 5, P. 23

Table 10 : Distribution of Cassava/Sweet Potatoes Garden Labour Requirements by Category and Type of Labour (hours and % per acre) \*

Category Worker	Garden Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	31.6	22.5	2.1	10.5	63.2	37.0	2.5	18.0
Females	45.8	32.7	9.4	47.0	69.9	40.9	7.0	50.4
Ch.r.12+	21.6	15.4	6.7	33.5	18.6	10.9	3.8	27.3
Hired Labour	41.2	29.4	1.8	9.0	19.1	11.2	-	-
Ch.r.11-	-	-	-	-	-	-	0.6	4.3
Total	140.2	100.0	20.0	100.0	170.8	100.0	13.9	100.0

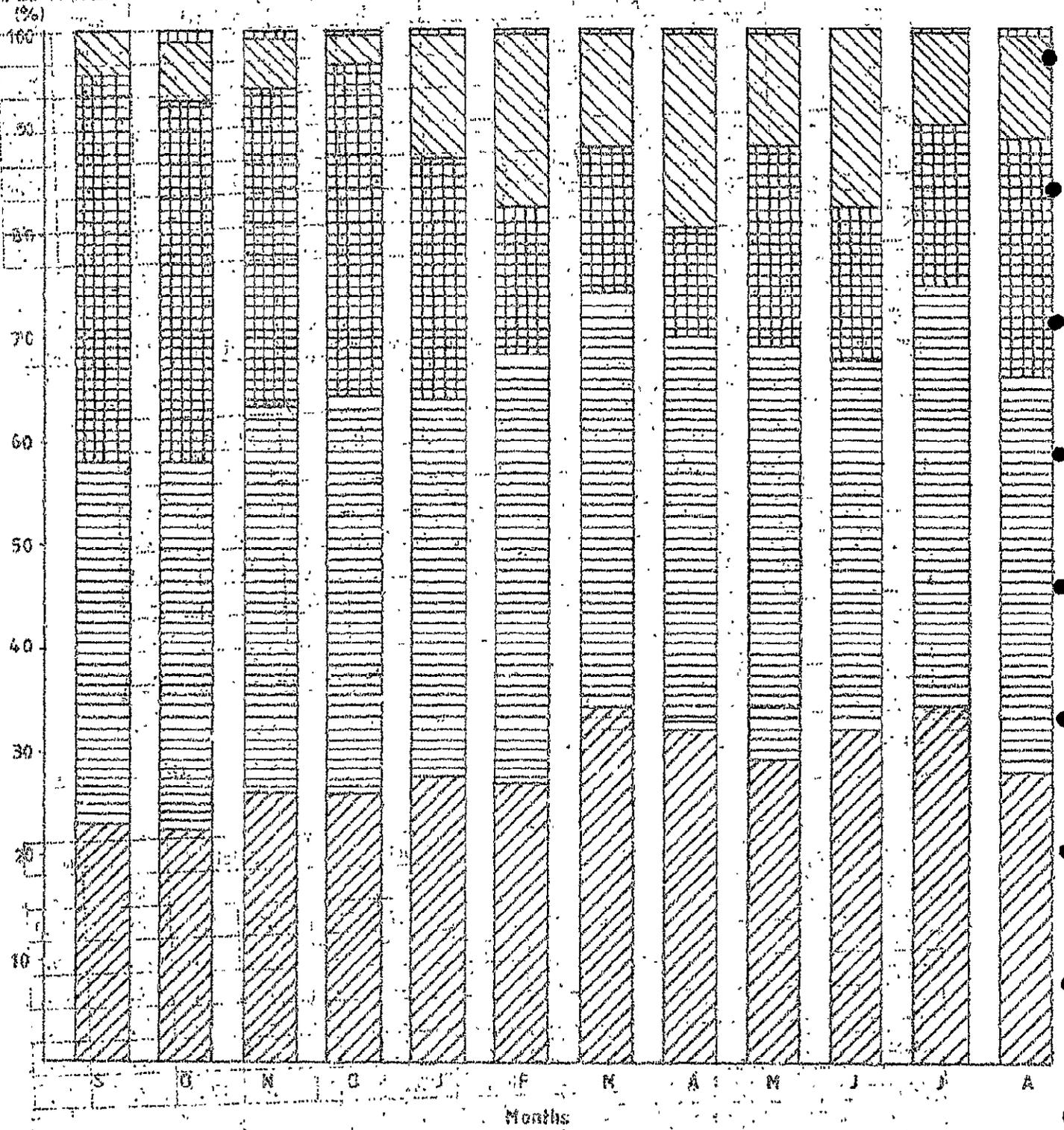
\* Adapted from A.E.S. Report No. 5, P. 24

Table : Distribution of Maize/Cassava/Legumes Garden Requirements by Category of Operation and Type of Labour (hours and % per acre) \*

Category Worker	Garden Preparation		Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	41.6	22.4	14.7	39.4	63.7	36.5	2.1	22.8	14.4	15.3
Females	67.7	36.4	13.4	35.9	67.7	38.8	4.2	45.7	37.5	39.9
Ch.r.12+	51.4	27.6	5.6	15.0	18.7	10.7	2.9	31.5	34.6	36.8
Hired Labour	23.8	12.8	3.6	9.7	17.3	9.9	-	-	6.5	6.9
Ch.r.11-	1.5	0.8	-	-	7.2	4.1	-	-	0.9	1.0
Total	186.0	100.0	37.3	100.0	174.6	100.0	9.2	100.0	93.9	99.9

\* Adapted from A.E.S. Report No. 5, P. 25

PERCENT DISTRIBUTION OF TYPE OF WORK BY MONTH (%)



-  Males
-  Females
-  Chg-12
-  Hired labour
-  Chg-11

### Labour distribution of farm operations for Nkhota-kota\*

Three sample villages-Mekuta, Ndoka, and Katengeza- near Nkhota-kota were surveyed daily from 21 September 1969 until 31 August 1970. Fifty-six households were represented in the random sample survey, thirty-two of the households were female-headed. Many of the female heads were elderly and living alone or had one or two young relatives in the household. Most of the men had found or were looking for employment elsewhere and many of the people in Makuta and Ndoka village did not consider themselves to be farmers. The size of the holdings was small, the mean cultivated land was .7 hectares. Cassava, rice and maize were the principle crops grown.

When males were present, they participated primarily in marketing (34.3%) (see Table 2) or in field work (26.5%). Females did the majority of the field work (55.8%); after harvest work (75.2%), and marketing (39.5%). Livestock were cared for primarily by young children (61.1%) or hired labour (36.1%); livestock caring seemed to be predominant user of hired labour, as they were rarely used in any of the crop production activities.

The amount of land under rice production tended to be small for every household. Katengeza village is near the Tiwi Dambo and people from that village had rice gardens there. Women did over half of the work involved in all categories of rice production, from a low of 50% for fertilizing to 59.2% for nursery and planting (see Table 10). The most hours were spent in land preparation (439.9 hours) and weeding (399.1 hours). The rice was second only to the sale of fish (26 households out of 56) in income production with 70% sold through ADMARC and the rest through private sales. This is in contrast to rice produced in settlement schemes, such as Hara (see A.E.S. No. 8) where men and hired labour do most of the field operations and most of the marketing. Since fewer males are present in this area and the amount of rice produced is small, the females manage the crop through all phases and possibly benefit from small sales.

Cassava production also was managed primarily by females (57.5%), males (24.2%), and children over 12 (14.7%); other operations were done by females with harvesting utilizing females at 81.1% of all labour. Cassava is the main staple food and is not usually sold.

Although maize is not a major staple nor is it sold, labour data was gathered on maize production (see Table 12). Males prepared the land (64.1%). Females did most of the planting and harvesting (62.6% and 73.5% respectively). Weeding was shared equally. Only .4 hour was spent to fertilize; fertilizing was a male task only.

There were far fewer males present than the average, even for this area. Consequently, females assumed most of the agricultural tasks which in other areas are male domains.

\*Based on data from A.E.S. No. 6, Nkhota-kota, Malawi, January, 1972.

AGRO-ECONOMIC SURVEY

Report No. 6

NKHOTA-KOTA: A sample farm management survey of agricultural households near Nkhota-Kota, Malawi, January, 1972.

Table 1 : Categories of Work and Type of Worker \*

Category of Worker	Field Work		After Harvest		Marketing		Livestock	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	14425	26.5	86	12.0	1027	34.3	27	2.8
Females	30426	55.8	538	75.2	1182	39.5	-	-
Ch.r.12	7501	13.8	74	10.3	560	17.7	-	-
Hired Labour	1738	3.2	9	1.3	169	5.7	352	36.1
Ch.r.11	433	0.7	8	1.1	52	1.7	596	61.1
Total	54523	100.0	715	99.9	2990	99.9	975	100.0

\* Adapted from AES Report No. 6, P. 14

Table 2 : Distribution of Rice Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) \*

Category of Worker	Garden Preparation		Nursery and Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	123.2	28.0	65.3	26.6	102.6	25.7	-	-	82.1	16.1
Females	252.8	57.5	145.1	59.2	227.3	57.0	0.2	50.0	265.1	52.0
Ch.r.12	56.1	12.8	34.8	14.2	60.8	15.2	0.2	50.0	95.1	18.8
Hired Labour	7.8	1.7	-	-	8.0	2.0	-	-	48.3	9.5
Ch.r.11,11-	-	-	-	-	0.4	0.1	-	-	19.1	3.7
Total	439.9	100.0	245.2	100.0	399.1	100.0	0.4	100.0	509.7	99.9

\* Adapted from AES Report No. 6, P. 22

Table 3 : Distribution of Cassava Garden Labour Requirements by Category of Operation and type of Labour (hours and % per acre) \*

Category of Worker	Garden Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	48.1	24.2	4.4	13.5	12.2	17.0	0.5	1.2
Females	114.2	57.5	22.0	67.3	49.6	72.8	33.5	81.1
Ch.r.12	29.1	14.7	6.3	19.2	5.6	8.2	6.7	16.2
Hired Labour	7.0	3.5	-	-	0.7	1.0	0.4	0.9
Ch.r.11-	0.2	0.1	-	-	-	-	0.2	0.5
Total	198.6	100.0	32.7	100.0	68.1	99.9	41.3	99.9

\* Adapted from AES Report No. 6, P. 23

Table 4 : Distribution of Maize Garden Labour Requirements By Category of Operation and Type of Labour  
(hours and % per acre) \*

Category of Worker	Garden Preparation		Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	51.8	64.1	10.9	28.5	27.8	49.4	0.4	100.0	16.0	14.3
Females	26.1	32.3	23.9	62.6	27.3	48.5	--	--	82.4	73.5
Ch.r.12+	2.9	3.6	3.4	8.9	1.2	2.1	--	--	13.7	12.2
Hired Labour	--	--	--	--	--	--	--	--	--	--
Ch.r.11-	--	--	--	--	--	--	--	--	--	--
Total	80.8	100.0	38.2	100.0	56.3	100.0	0.4	100.0	112.1	100.0

\* Adapted from AES Report No. 6, P. 24

Labour distribution of farm operations in Namwera\*

Daily surveys were taken of 138 households in Namwera township in 1973/74 and 1974/75. Sixty households in three villages were selected the first survey year and 78 households from three more villages were selected the second year, 60 households therefore providing data for two years. A low male-female ratio (40% of the men in the 15 - 46 age group were absent) exists signifying the extent of male labour migration, often to tobacco estates in the area. Mean farm size was 1.05 hectares in 1975, down from 1.54 in 1974. Between 30% - 40% of the holdings are below the size needed to achieve food self-sufficiency. Furthermore, continuous cropping is practiced with concomittant declines in yields. Farmers in the area are subsistence farmers, growing a wide variety of crops. The most commonly grown crops or intercrops were: maize (46% of total cropped area), maize/pulses (17%), and maize/groundnuts (11%).

The A.E.S. report on Namwera aggregated the labour data to reflect different categories of workers ability to work (see Table 1). For the physically demanding tasks, women are assumed to "work" less than men, that is to say, that a given task would take a woman longer to complete if it were very strenuous. Other tasks may be done equally well by both sexes. A list of conversion coefficients to calculate the worth of each category of worker which was used is given here below. The weighting system was based on J. Farrington (Farm Surveys in Malawi: The Collection and Analysis of Labour Data, Univ. of Reading, Dept of Agricultural Economics, Development Study No. 16, 1975)

Conversion coefficients for pure stand maize\*

	Male head	adult female	other male	children (to 15)	hired Males	hired female
preparation	1.0	0.8	0.9	0.3	1.2	0.8 +
planting and fertilizing	1.0	0.85	0.9	0.6	1.0+	0.85 +
weeding	1.0	0.8	0.9	0.6	1.4	0.8 +
harvesting and marketing	1.0	1.0	0.8 +	0.6 +	.9	1.0 +

\* From A.E.S. No. 31 p. 22.

+ Modification of Farrington's estimates

Assuming a work month of 25 days, male heads worked 5.7 hours/day, female heads 6.0 hours/day and children 3.3 hours/day. Table 2 indicates that most of the agricultural labour in this area is done by hired males and females. Male heads perform 63% of the agricultural work performed by females but they do perform more off-farm work (mostly on estates) which is agricultural. Table 3 presents data for the percentage of particular crop operations performed by various workers. Males do much of the physically demanding tasks while females take care of harvesting and marketing. Specific labour details on the various cropping systems were not made in this report.

\* Based on data from A.E.S. No. 31, Namwera, Mangochi District, October 1978.

AGRO-ECONOMIC SURVEY

Report No. 31

NAMWERA: A farm management survey of smallholders  
in Namwera, Mangochi District, Malawi, October, 1978.

Table 1 : Conversion Coefficients for Pure stand Maize

	Male head	Adult Females	Other Males	Children (-15)	Hired Males	Hired Females
Preparation	1	0.8	0.9	0.3	1.2	0.8
Planting and Fertilizing	1	0.85	0.9	0.6	1.0	0.85
Weeding	1	0.8	0.9	0.6	1.4	0.8
Harvesting and Marketing	1	1	0.8	0.6	0.9	1.0

Source: AES Report No. 31, Table B1, P. 22

Table 2 : Mean Annual hours worked by class of work and worker Category (hours and %)

Agricultural Work	Male Heads	Female Heads and Wives	Other Males	Other Females	Children	Hired Males	Hired Females	Total
Field Work Hours	255	585	110	400	40	1130	985	3505
%	7.3	16.7	3.1	11.4	1.1	32.2	28.1	99.9
Non-field Work Hours	185	110	255	75	75	550	40	1290
%	14.3	8.5	19.8	5.8	5.8	42.6	3.1	99.9
Total	440	695	365	475	115	1680	1025	

Unadjusted hours.

\* Adapted from AES Report No. 31, Table B3, P.36

Table 3 : Percentage of Labour input into Particular Operations by Worker

	Male Heads	Female Heads and Wives	Other Males	Other Females	Children	Hired Males
Preparation	26 (30)	52 (40)	2 (2)	9 (8)	3 (1)	8 (11)
Planting and Fertilizing	12 (14)	62 (60)	2 (3)	14 (13)	4 (3)	6 (7)
Weeding	16 (19)	50 (55)	2 (2)	9 (9)	7 (5)	6 (10)
Harvesting and Marketing	9 (9)	58 (58)	2 (2)	27 (27)	4 (0)	0 (0)

Figures are in unadjusted hours with the standard hours in brackets.

A.E.S. Report No. 31, Table B4, P. 24

Labour distribution of farm operations in Nsanje South\*

A case study survey of Malimba (or Gambia) groundnut growers was carried out during 1971/72 and 1972/73 in three villages (Ngabu; Nkuziwaduka and Chabulumunda) in Nsanje South. Non-Malimba growers were surveyed in 1973 in order to compare the two types of farmers but labour data was not collected for the non-Malimba growers.

Due to male labour migration, the female to male ratio in the area is greater than 1 except for the oldest age group (65+ years). Most of the households grow millet/sorghum, maize and sweet potatoes. As the size of the holding increases, the cropping pattern changes toward more monocrops and away from intercrops. Also in the larger holdings, more cash crops are produced (e.g., groundnuts and cotton). Millet/sorghum are considered to be women's crops and irrespective of the size of the holding, the food crops like millet/sorghum predominate.

The crops with the highest labour demands are maize, rice, millet, sorghum, groundnuts and sweet potatoes. Table 1 shows the percentage of time spent on different farm operations by type of worker. The greatest proportion of males time is spent on weeding, harvesting and other operations (e.g., fertilizing, threshing, transporting, etc.). Females also spend much time on weeding, planting, harvesting and other operations. There are few livestock in the area and they are usually cared for by children. The division of labour between men and women does not show large differences. In Table 2 it can be noted that for several operations men and women take an equal part. Males do most of the harvesting. Planting, transplanting, and marketing are women's activities. Labour activities for specific crops are not presented but the report states that there are no crops particularly looked after by men or women except millet and sorghum.

\* Based on data from A.E.S. No. 22, Nsanje South, Nsanje District, February, 1977.

AGRO-ECONOMIC SURVEY

Report No. 22

NSANJE SOUTH: A farm economic survey of Malimba Groundnut Growers and Non-Malimba Growers on the Southern part of Nsanje District, Malawi, February, 77.

Table 1 : Percentage of Time spent on different farm Operations by Type of worker

	Males +15	Female +15	Children 6-14
Land Clearing Uprooting	7	8	1
Ridging, Tilling	10	10	1
Planting, Transplanting	8	15	1
Weeding	16	20	2
Harvesting	18	14	2
Livestock Operations	1	-	70
Marketing	2	4	2
Walking to and from gardens	12	14	10
Other Operations	26	15	12
Total Labour use (%)	100	100	100

Adapted from AES Report No. 22, Table 33, P. 48

Table 2 : Percentage share of Time spent on different Operations by Type of Labour

	Male 15+	Females 15+	Children 6-14	Total
Land Clearing, Operating	47	47	6	100
Ridging, Tilling	52	47	1	100
Planting, Transplanting	37	58	5	100
Weeding	46	48	6	100
Harvesting	50	43	7	100
Livestock Operations	3	2	95	100
Marketing	34	58	8	100
Walking to and from garden	44	47	9	100

Adapted from AES Report No. 22, Table 34, P. 49

## Labour distribution of farm operations in Hara\*

The Hara Irrigation Scheme in southern Karonga district was settled by either local farmers or Malawi Young Pioneers. Thirty sample households were surveyed daily from 1 December 1969 until 31 December 1970. Settlers were allocated 2-acre sites for rice plots but three growers had somewhat larger rice plots. Not all of the land was used for rice production. Rice was grown in a double cropping system: rain-fed from December to June (summer) and irrigated from July to November (winter). In summer, the 30 households had 27.2 cultivated hectares, 20.7 hectares in rice. In winter 20.7 hectares were cultivated, 13.8 hectares in rice.

Rice production, especially when double-cropped, involves a continuous year round input of labour. Many of the settlers could not become accustomed to this or did not have enough labour to perform all tasks. Hired labour was used a great deal, especially for non-rice growing activities (e.g., livestock tending). Males did the majority of the field work (30.2%) (see Table 2) and marketing (45.9%) while females did most of the after harvest work (40.3%) such as threshing and cleaning grain. The hours shown in the tables for each category of worker have been already converted to "man hours per acre" with the following equivalents being used.

male	=	1.0 man equivalent.
female	=	0.7 m. e.
other adults	=	0.7 m. e.
hired labour	=	1.0 m. e.
children & relations	=	0.3 m. e.

Therefore an hour of work by a woman was only counted as .7 of an hour compared to an hour of work by a man which counted as one full hour.

The categories of operation can be broken down into clearing and preparation, seedbed work and planting, weeding, fertilizing, and harvesting. Land preparation was done by males and hired labour primarily. (see Table 10) (79.8%). Seedbed preparation and planting utilized males at 32.8%, females at 25.4% and hired labour at 26.2%. Weeding activities were also similarly apportioned out among these three groups. Males did most of the fertilizing (76.7%) and all of the labour pool participated in harvest at an equal rate (except young children at 6.7%).

For the non-rice crops, cassava production is used as an example for labour distribution. Hired labour was used to clear the land for planting (see Table 11). Females did the majority of the other labour: planting (40.9%), weeding (64.6%) and harvesting (54.6%).

From the survey data, only four households did not hire any labour at all; many had hired labour on an almost permanent basis. Males seemed to be the ones responsible for the rice production while females were responsible for those crops that the family would eat.

\* Based data from A.E.S. No. 8 for the Hara Irrigation Scheme in Karonga District, Malawi, March, 1972. A.E.S. No. 1 is also on Hara, but it was decided to analyze No. 8 only because the data was more recent and complete.

HARA: A sample farm management survey of rice growers in the Hara Irrigation Scheme in Karonga District, Malawi, March, 1972.

Table 1 : Category of Work by Type Worker \*

Category of Worker	Field Work		After Harvest		Marketing		Livestock	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	39461	30.2	3254	18.4	306	45.9	13	0.3
Females	28994	22.2	7121	40.3	99	14.9	21	0.5
Ch.r.12-	20611	15.8	3331	18.8	243	36.5	1366	33.8
Hired Labour	37685	28.8	3594	20.3	10	1.5	2633	65.2
Ch.r.11-	3974	3.0	372	2.1	8	1.2	5	0.1
Total	130725	100.0	17672	99.9	666	100.0	4038	99.9

\* Adapted from AES Report No. 8, P. 15

Table -2 : Distribution of Rice Garden Labour Requirements by Category of Operations and Type of Labour (hours and % per acre) \*

Category of Worker	Clearing & Preparation		Seedbed Work & Planting		Weeding		Fertilizing		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	396.8	42.8	271.8	32.8	323.1	27.6	6.6	76.7	65.4	26.7
Females	65.7	7.1	210.6	25.4	326.3	27.9	0.5	5.8	64.1	26.1
Other Adults	116.2	12.6	114.6	13.8	177.2	15.1	0.5	5.8	50.1	20.4
Hired Labour	342.6	37.0	217.4	26.2	278.8	23.8	1.0	11.6	49.1	20.0
Ch.r.11-	4.0	0.5	14.6	1.8	65.6	5.6	-	-	16.5	6.7
Total	925.7	100.0	829.0	100.0	1171.0	100.0	8.6	99.9	245.2	99.9

\* Adapted from AES Report No. 8, P. 23

Table 3 : Distribution of Cassava Garden Labour Requirements by Category of Operations and Type of Labour (hours and % per acre) \*

Category of Worker	Clearing & Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	32.9	13.0	7.3	12.4	4.0	9.0	6.3	17.7
Females	19.6	7.7	24.0	40.9	28.4	64.6	19.5	54.6
Other Adults	23.3	9.2	11.4	19.4	11.6	26.4	9.2	25.8
Hired Labour	172.9	68.2	16.0	27.3	-	-	-	-
Ch.r.11-	4.8	1.9	-	-	-	-	0.7	1.9
Total	253.5	100.0	58.7	100.0	44.0	100.0	35.7	100.0

\* Adapted from EAS Report No. 8, P. 24

Table 4 : Category of Work by Type Worker

Category of Worker	Field Work		After Harvest		Marketing		Livestock	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	39461	30.2	3254	18.4	306	45.9	13	0.3
Females	28994	22.2	7121	40.3	90	14.9	21	0.5
Other Adults members	20611	15.8	3331	18.8	243	36.5	1366	33.8
Hired Labour	37685	28.8	3594	20.3	10	1.5	2633	65.2
Children & Relations	3974	3.0	372	2.1	8	1.2	5	0.1
Total	130725	100.0	17672	99.9	666	100.0	4038	99.9

Source: AES Report No. 8, P. 15



## Labour distribution of farm operations in Karonga North\*

In 1969/70, a survey of 50 households was conducted in Mwakasangila and Mwangosi villages in the rice growing area in Karonga North. A further survey was carried out in 1971/72 with a follow up in 1975. The average size of the holdings was 2.4 hectares. Rice is the major cash crop grown in these villages; food crops are cassava, bananas, maize, millet and groundnuts. There is an eight-month wet season but farmers are still risk-averse and the farming systems are basically subsistence. The population is young with slightly more females than males.

The average number of hours in a working day is 2.7; females have the longest working day (including agricultural and non-agricultural work). Males have the shortest working day but spend these hours mainly on farm tasks. Table 1 shows that, in terms of hours on basic agricultural tasks, males and females spend most of their hours on field work but men are usually responsible for marketing while females are responsible for the after harvest work. Children of all ages care for livestock while hired labour is used primarily for field work.

Table 2 presents the labour requirements for each main crop. In absolute terms, rice requires the most labour because the acreage is so large. Males spend most of their hours of working on rice, cassava, and cotton while females spend most of their working hours on rice, groundnuts, maize and millet. Men do more work than women only on cassava and cotton. Women do more on rice, groundnuts, maize and millet than men. Men's work is generally considered to be the land clearing, ploughing, and tilling. Women do the planting, weeding, and harvesting. These generalizations vary, of course, with specific crops. Table 3 breaks down labour use more specifically, showing that males clear land, plough, plant and market rice. Females have most responsibility for weeding (52.2%), harvesting (51.2%), threshing (59.8%), and transporting (47.1%). Hired labour was used slightly for planting, weeding, and harvesting. In Haray, another area where rice is grown, males assumed responsibility for all tasks associated with rice production and females took care of the food crops. This pattern of women's work with food crops also exists in Karonga North as can be seen in Table 4 concerning labour use for maize production. Males assisted with ploughing, tilling, and land clearing; females did most of the other work.

These differences between male and female labour on cash and subsistence crops are especially apparent for groundnuts (Table 5), maize/groundnuts intercrop (Table 6) and cassava (Table 7). It is obvious that in addition to the male-female differentiation in chores as pointed out in Report No. 10, there are differences in crops as well. The hours spent on all of the subsistence crops by women far exceeds the hours spent on rice production by men.

\* Based on data from A.E.S. No. 3 (1971) and No. 18 (1976), Karonga North.

Table 1 : Categories of Work and Type of Worker (per Cent)

Category of Worker	Field Work		After Harvest		Marketing		Livestock	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	22099	29.0	1666	11.9	874	41.3	10494	27.0
Females	29728	39.0	8234	59.0	741	35.0	20	0.1
Ch.r.12+	16027	21.0	3640	26.1	460	21.7	20995	54.0
Hired Labour	6278	8.2	270	1.9	16	1.0	1961	5.0
Ch.r.11-	2064	2.7	153	1.1	22	1.0	5419	13.9
Total	76196	99.9	13963	100.0	2115	100.0	38889	100.0

\* Adapted from A.E.S. Report No. 3, Table 2, P. 9

Table 2 : Distribution of Maize Garden Labour Requirements by Operations and Type of Labour (by hours and % per acre) \* total hours = 161

Category of Worker	Garden Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	7.6	27.2	6.8	24.0	9.2	12.4	0.5	1.6
Females	7.4	26.5	13.1	47.8	52.3	70.8	21.6	67.9
Ch.r.12+	10.5	37.6	7.5	27.4	6.4	11.4	9.7	30.5
Hired Labour	2.4	8.6	-	-	3.5	4.7	-	-
Ch.r.11-	-	-	-	-	0.5	0.7	-	-
Total	27.9	99.9	27.4	100	73.9	100	31.8	100

\* Adapted from A.E.S. Report No. 3, Table 10, P. 17.

Table 3 : Distribution of Groundnuts Garden Labour Requirements by Operations and Type of Labour (by hours and % per acre) \* total hours = 563.2

Category of Worker	Garden Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	0.8	1.4	2.2	3.4	17.2	10.2	2.9	2.8
Females	42.1	71.1	48.6	75.2	130.0	76.8	74.6	73.9
Ch.r.12+	6.8	11.5	13.4	20.7	22.0	13.0	23.5	23.3
Hired Labour	7.0	11.8	"	"	"	"	"	"
Ch.r.11-	2.5	4.2	0.4	0.6	"	"	"	"
Total	59.2	100	64.6	99.9	169.2	100	270.2	100

\* Adapted from A.E.S. Report No. 3, Table 11, P. 18

Table 4 : Distribution of Maize/Groundnuts (Intercropped) Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) \* total hours = 296.3

Category of Worker	Garden Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	4.0	5.8	1.3	2.4	9.3	7.9	0.5	0.9
Females	53.2	76.7	43.4	80.5	77.4	66.3	54.6	97.2
Ch.r.12+	10.9	15.7	6.2	17.1	21.6	18.5	1.1	1.9
Hired Labour	"	"	"	"	8.5	7.3	"	"
Ch.r.11-	1.3	1.8	"	"	"	"	"	"
Total	69.4	100.0	53.9	100.0	116.8	100.0	56.2	100.0

\* Adapted from A.E.S. Report No. 3, Table 12, P. 10

Table 5 : Distribution of Rice Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) total hours = 381.2

Category of Worker	Garden Preparation		Planting and Nursery		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	23.2	53.7	15.0	51.9	48.6	23.6	21.7	21.2
Females	2.5	5.8	4.6	15.9	94.5	45.9	43.1	42.1
Ch.r.12+	15.9	36.8	8.3	28.7	26.5	12.8	23.7	23.1
Hired Labour	1.3	3.0	0.9	3.1	35.5	17.2	4.4	4.3
Ch.r.11-	0.3	0.7	0.1	0.3	0.9	0.4	9.5	9.3
Total	43.2	100.0	20.9	99.9	205.8	99.9	102.4	100.0

Adapted from A.E.S. Report No. 3, Table 13, P. 20

Table 6 : Distribution of Cassava Garden Labour Requirements by Category of Operation and Type of Labour  
 (hours and % per acre) total hours = 211.3

Category of Worker	Garden Clearing		Garden Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	-	-	125.7	58.7	12.8	30.3	8.0	55.6	-	-
Females	2.2	100.0	3.0	1.4	22.0	52.1	-	-	4.2	100.0
Ch.r.12	-	-	57.3	26.7	7.4	17.5	6.4	44.4	-	-
Hired Labour	-	-	28.3	13.2	-	-	-	-	-	-
Ch.r.11	-	-	-	-	-	-	-	-	-	-
Total	2.2	100.0	214.3	100.0	42.2	99.9	14.4	100.0	4.2	100.0

Adapted from A.E.S. Report No. 3, Table 14, P. 21

AGRO-ECONOMIC SURVEY

Report No. 18

KARONGA NORTH: A farm economic survey of agricultural households in two villages on the Karonga North Lakeshore Plain, Malawi, April, 1976.

Table 1 : Annual Labour Requirements of Main Crops (hours/%/acre)

Crop		Family Labour			Hired Labour			Total
		Males	Females	Child	Male	Female	Child	
Rice	Hours	125.5	191.4	18.3	3.7	23.7	-	362.6
	%	34.6	52.8	5.1	1.0	6.5	-	100.0
Groundnuts	Hours	32.7	323.0	16.6	0.6	-	0.8	373.7
	%	8.8	86.4	4.4	0.2	-	0.2	100.0
Maize	Hours	29.2	104.6	6.3	0.4	-	-	140.5
	%	20.7	74.5	4.5	0.3	-	-	100.0
Cassava	Hours	136.2	18.7	5.5	24.9	-	-	185.3
	%	73.5	10.1	3.0	13.4	-	-	100.0
Millet	Hours	76.5	161.3	5.2	-	-	-	243.0
	%	31.5	66.4	2.1	-	-	-	100.0
Cotton	Hours	197.4	75.3	10.0	-	-	-	282.7
	%	69.8	26.6	3.5	-	-	-	99.9

Adapted from Report No. 18 Table 21, P. 26.

Table 2. : Distribution of Rice Garden Labour Use by Operation and Type of Labour (hours and % per acre)

Type of Operation		Male	Female	Other 15+		Visitors		Children	Hired Labour			Total
		Head	Heads	Male	Female	Male	Female	14-	Male	Female	Child	
Land Clearing	Hours	2.7	0.3		0.1							3.4
	%	79.4	17.6		2.9							100.0
Ploughing & Tilling	Hours	20.0	2.0	7.2		7.3		7.1				44.4
	%	45.0	6.3	16.2		16.4		16.0				99.9
Planting	Hours	11.0	5.6	2.6	0.5	5.5	0.1	3.3	0.1	0.2		28.9
	%	38.1	19.4	9.0	1.7	19.0	.3	11.4	.3	.7		99.9
Weeding	Hours	34.1	79.3	6.6	5.0		0.4		2.7	22.7		151.8
	%	22.5	52.2	4.3	3.9		.3		1.8	15.0		100.0
Harvesting	Hours	12.4	43.5	2.4	7.1	1.0	11.7	5.2	0.9	0.8		85.0
	%	14.6	51.2	2.8	8.4	1.2	13.8	6.1	1.1	.9		100.1
Threshing & Blowing	Hours	6.0	20.1	0.5	3.9	0.5	0.9	1.7				33.6
	%	17.9	59.8	1.5	11.0	1.5	2.7	5.0				100.0
Transporting	Hours	1.4	3.3	0.1	0.4	0.2	1.0	0.6				7.0
	%	20.0	47.1	1.4	5.7	2.8	14.3	8.6				99.9
Marketing	Hours	3.4	2.7	0.4	1.2			0.4				8.1
	%	42.0	33.3	4.9	14.8			4.9				99.9

Adapted from AES Report No. 10, PR 51-54

Table 3: Distribution of Maize Garden Labour Use by Operation and Type of Labour (hours and % per acre)

Type of Operation		Male Head	Female Head Wives	Other 15+		Visitors		Children 14+	Hired Labour			Total
				Male	Female	Male	Female		Male	Female	Child	
Land Clearing	Hours	4.6	8.0	0.3	0.8	--	--	0.2	--	--	--	13.9
	%	33.1	57.6	2.2	5.8	--	--	1.4	--	--	--	100.1
Planting	Hours	1.5	8.9	1.3	1.2	--	--	2.0	--	--	--	14.0
	%	10.1	59.7	8.7	8.0	--	--	13.4	--	--	--	99.9
Weeding	Hours	9.5	43.8	2.4	10.9	0.4	5.2	--	0.3	--	--	75.5
	%	12.6	62.0	3.2	14.4	.5	6.9	--	.4	--	--	100.0
Harvesting	Hours	--	14.8	--	--	--	2.1	1.2	--	--	--	18.1
	%	--	81.8	--	--	--	11.6	6.6	--	--	--	100.0
Transporting	Hours	--	4.2	--	0.1	0.7	--	1.1	--	--	--	6.1
	%	--	68.8	--	1.6	11.5	--	18.0	--	--	--	99.9
Ploughing/Tilling	Hours	6.6	1.1	1.7	--	0.8	--	0.9	2.1	--	--	11.2
	%	58.9	9.8	15.2	--	7.1	--	8.0	9	--	--	99.9

Adapted from AES Report No. 18, PP 55-57

Table 4 : Distribution of Groundnuts Garden Labour Use by Operation and Type of Labour (hours and % per acre)

Type of Labour		Planting & Tilling	Planting	Weeding	Harvesting
Male Heads	Hrs	2.4	1.4	1.9	7.6
	%	9.0	2.9	1.6	4.2
Female Head, Wives	Hrs	16.3	39.1	89.1	120.1
	%	61.0	80.8	76.3	66.0
Other Male 15+	Hrs	1.3	0.3	0.9	4.0
	%	4.9	0.6	0.8	2.2
Other Female 15+	Hrs	2.0	4.4	13.8	18.5
	%	7.5	9.1	11.8	10.2
Visitors Male	Hrs	3.6	-	0.5	8.8
	%	13.5	-	0.4	4.8
Visitors Female	Hrs	-	-	4.3	15.4
	%	-	-	3.7	8.5
Children 14-	Hrs	0.5	3.2	6.0	6.9
	%	1.9	6.6	5.1	3.8
Hired Labour Male	Hrs	0.6	-	-	-
	%	2.2	-	-	-
Hired Labour Female	Hrs	-	-	-	-
	%	-	-	-	-
Hired Labour Children	Hrs	-	-	0.2	0.6
	%	-	-	0.2	0.3
Total	Hours	26.7	48.4	116.7	181.9
	%	100.0	100.0	99.9	100.0

Adapted from AES Report 18, table 43 a & b, PP 58-59

Table 2 : Distribution of Millet Garden Labour by Operation and Type of Labour (hours and % per acre)

Type of Labour		Ploughing & Tilling	Planting	Weeding	Harvesting	Uprooting	Threshing	Transporting
Male Heads	Hrs	4.4	28.5	4.7	16.8	5.0	0.6	
	%	22.6	78.1	38.4	10.1		100.0	
Female Heads, Wives	Hrs		3.5	6.1	84.6			1.9
	%		9.6	47.3	50.0			100.0
Other Males 15+	Hrs	3.2	3.0					
	%	16.4	8.2					
Other Female 15+	Hrs							
	%							
Visitors Male	Hrs	10.3						
	%	52.8						
Visitors Female	Hrs				65.2			
	%				39.1			
Children 14-	Hrs	7.6	1.5	2.1				
	%	8.2	4.1	16.3				
Hired Labour Male	Hrs							
	%							
Hired Labour Female	Hrs							
	%							
Hired Labour Children	Hrs							
	%							
Total	Hours	19.5	36.5	12.9	166.6	5.0	0.6	1.9
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Adapted from AES Report 18 table 45, P 62

Table 5 : Distribution of Cassava Garden Labour Use by Operation and Type of Labour (hours and % per acre)

Type of Labour		Planting & Tilling	Ridging	Planting	Harvesting
Male Heads	Hrs	3.5	96.2	9.5	-
	%	66.0	63.5	50.0	-
Female, Heads, Wives	Hrs	-	-	9.1	7.0
	%	-	-	47.9	72.9
Other Males 15+	Hrs	1.8	15.8	0.1	-
	%	34.0	10.4	0.5	-
Other Female 15+	Hrs	-	-	-	0.8
	%	-	-	-	8.3
Visitors Male	Hrs	-	9.3	-	-
	%	-	6.1	-	-
Visitors Female	Hrs	-	-	-	1.8
	%	-	-	-	18.8
Children 14-	Hrs	-	5.2	0.3	-
	%	-	3.4	1.6	-
Hired Labour Male	Hrs	-	24.9	-	-
	%	-	16.5	-	-
Hired Labour Female	Hrs	-	-	-	-
	%	-	-	-	-
Hired Labour Children	Hrs	-	-	-	-
	%	-	-	-	-
Total	Hours	5.3	151.4	19.0	9.6
	%	100.0	99.9	100.0	100.0

Adapted from AES Report 18, table 44a & b, PP 60-61

AGRO-ECONOMIC SURVEY

Report No. 9

LAKE CHILWA: A farm management survey, August, 1972.

Table 1 : Categories of Work and Type of Worker

Category of Work	Man Head	Female Head Wives	Other Males 15+	Other Females 15+	Children 14-	Hired Male Labour	Hired Female Labour	Hired Child Labour	Total
Garden	Hrs 1411	1192	30	71	46	1535	-	-	4206
Clearing	% 32.9	27.8	.7	1.6	1.1	35.3	-	-	99.9
Garden Preparation	Hrs 5926	8606	825	1200	1340	3282	448	578	22213
	% 26.7	36.7	3.7	5.4	6.1	14.3	2.0	2.6	100.0
Crop Work	Hrs 18074	28607	2216	3169	4989	1567	1002	65	59639
	% 30.2	47.9	3.7	5.3	8.4	2.6	1.7	.1	99.9
Care of Livestock	Hrs 259	5	2652	-	373	3202	-	5129	11620
	% 2.2	-	22.8	-	3.2	27.6	-	44.1	99.9
Misc. farm Operation	Hrs 4200	3123	252	193	438	70	4	33	8313
	% 50.5	37.6	3.0	2.3	5.3	0.8	-	0.4	99.9

Adapted from A.E.S. Report No. 9, Table 5, P. 36.

Table 2 : Distribution of Rice Garden Labour Use by Operation and Type of Worker (hours and % per acre)

Type of Labour		Planting	Weeding	Harvesting	Threshing	Marketing
Man Head	Hours	35.8	111.5	105.6	36.4	2.1
	%	42.0	32.7	31.9	37.4	24.7
Female Head, Wives	Hours	34.0	164.9	148.7	46.5	6.1
	%	40.0	48.2	44.9	47.8	71.8
Other Males 15+	Hours	1.1	12.7	9.7	3.2	-
	%	1.3	3.7	2.9	3.3	-
Other Females 15+	Hours	1.1	13.0	11.8	7.3	0.1
	%	1.3	3.8	3.6	7.5	1.1
Children 14-	Hours	3.9	26.8	28.1	3.9	0.2
	%	4.6	7.9	8.5	4.0	2.4
Hired Male	Hours	3.9	6.1	22.1	-	-
	%	4.6	1.8	6.7	-	-
Hired Female	Hours	5.3	6.5	5.1	-	-
	%	6.2	1.9	1.5	-	-
Hired Child	Hours	-	-	-	-	-
	%	-	-	-	-	-
Total	Hours	85.1	341.5	331.1	97.3	8.5
	%	100.0	100.0	100.0	100.0	100.0

Adapted from A.E.S. Report No. 9, Table 20, P. 55

Annex I

## Labour distribution of farm operations in Lake Chilwa\*

Four villages at the northern end of Lake Chilwa, (Kankhomba, Khuzumba, Maniwa and Ntolowa) were surveyed daily during the 1970/71 agricultural season. The sample selection was not random; only villages growing rice on the edge of the Lake Chilwa Plain were selected. The holding size varied a great deal, from 0.6 - 6.6 hectares; the mean size of all holdings was 2.2 hectares. The major crops grown were maize, rice cassava, and maize/cassava intercropped. All farmers planted about the same proportion of maize. The amount of rice planted varied. Maniwa, which is close to the Lake, planted 40% of the cultivated land to rice while the figure for the other three villages was closer to 15%.

In this survey, agricultural work was comprised of garden clearing, preparation and crop work. Non-agricultural work, however, included care of livestock and miscellaneous farm operations in addition to other work. Average working day figures are therefore difficult to interpret. Female heads and wives have slightly longer working days throughout the year compared to male heads (6.3 vs. 5.8 hours). Other males and females over 15 have much shorter working days (3.1 hours) and children contribute only 1.3 hours per day. Agricultural production depends largely on those people responsible for the household, the male or female head.

Table 1 gives the labour use by type of work and worker. It reiterates the above statement that household heads do much of the work connected with agriculture but also shows that women do most of the crop work (47.9%). Livestock care is left up to hired male (27.6%) or child labour (44.1%).

Tables 2, 3 and 4 show labour use regarding rice, maize and cassava in hours per acre. For rice production, men and women participate equally in planting but other tasks are performed to a greater extent by women especially weeding, threshing and marketing. In maize and cassava production, females do the majority of all work. Hired labour was used only by few households for a few times during the year.

Although in this area, rice is a cash crop, there was not the pattern of males taking care of the cash crop and females taking care of the food crops. More hours were put into the rice crop by both sexes yet the females did the majority of the work including marketing. Males however, also helped with the production of food crops, a not common occurrence.

\* Based on data from A.E.S. No. 9, Lake Chilwa, August, 1972.

Labour distribution of farm operations in Chisasa\*

Surveys were carried out in three villages (Bongowongo, Chikosela Gondwe, and Chitapa Moyo) in the Chisasa area during the 1971/72 and 1972/73 agricultural seasons. All holdings in the random survey area grew maize, usually mixed with other crops (groundnuts, cassava, and millet). The cash crop in the area is oriental tobacco but not all of the surveyed households grew tobacco. The average holding was 3.6 hectares. Tobacco growers generally had more cultivated land than non-tobacco growers, usually in maize; the acreage under tobacco was insignificant.

Tobacco growers had more adults per acre of cultivated land (see Table 1). Tobacco growing is a men's affair, all tobacco growing households had male heads. Of the non-tobacco growing households, 43% had female heads. Migration of males to other areas to seek employment is common and there are more female headed households (56% - 57%) than male (Table 2).

Females of 15 years of age and over work a longer day than males (p. 47) because of the time spent on domestic activities. During peak agricultural months, females work as many hours as males. Agricultural tasks occupy the males all year round, especially during peak months. Children work for tobacco growers during March-May stringing tobacco. Tobacco growing takes up the most time (see Table 3) of any of the crops grown (3884 hours per acre). A breakdown of the operations involved in tobacco growing (Table 4) shows that stringing and curing, harvesting, and the nursery work (planting, transplanting) take the greatest number of hours. Children do both the stringing and harvesting primarily. Both sexes participate in all crop operations but men do most of the land clearing (63%) nursery work (59%), and marketing (65%). They also fertilize the crop (49%), string (25%), weed (44%) and harvest (18%). Women do most of the weeding (56%), but also do some nursery work (38%), fertilizing the crop (36%), harvesting (24%) and marketing (27%). The food crops (maize, groundnuts and millet) only occupy 769 hours per year.

Labour is hired primarily for agricultural activities. Male labour does not fluctuate during the year but females and children are very busy during March to May. This is a function of tobacco harvesting and curing operations. March to May is when hired labour also peaks (see Table 5). Non-tobacco growers having large holdings (more than 4.5 hectares) always hired labour.

In general, all people do agricultural labour, males being in charge of tobacco and females in charge of food crops but both sexes work on both types of crops. Females work longer days. Children are extensively used for some tobacco-related operations (stringing and harvesting). Tobacco has periods of very peak labour requirements in which all family members and hired labour must participate.

\* Based on data from A.E.S. No. 21, Chisasa, Mzimba District, December 1977.

Table 3 : Distribution of Maize Garden Labour Use by Operation and Type of Labour (hours and % per acre)

Type of Operation		Man Head	Female Wives	Other Males 15+	Other Females 15+	Children 14-	Hired Labour			Total
							Male	Female	Child	
Planting	Hours	6.6	9.5	0.5	1.3	1.1	0.1	-	0.1	19.2
	%	34.4	49.5	2.6	6.8	5.7	0.5	-	0.5	100.0
Weeding	Hours	31.8	52.0	6.0	7.3	12.4	2.8	1.2	0.3	113.8
	%	27.9	45.7	5.3	6.4	10.9	2.5	1.0	0.2	99.9
Fertilizing	Hours	0.8	1.0	0.5	-	1.2	-	-	-	3.5
	%	22.9	28.6	14.2	-	34.3	-	-	-	100.0
Harvesting	Hours	7.5	18.8	0.5	1.5	2.2	-	2.3	-	32.8
	%	22.8	57.3	1.5	4.5	6.70	-	7.0	-	99.8
Marketing	Hours	-	0.1	-	-	-	-	-	-	0.1
	%	-	100.0	-	-	-	-	-	-	100.0

Adapted from A.E.S. Report No. 9, Table 21, P. 57

Table 4 : Distribution of Cassava Garden Labour Use by Operation and Type of Labour (hours and % per acre)

Type of Operation		Man Head	Female Wives	Other Males 15+	Other Females 15+	Children 14-	Hired Labour			Total
							Male	Female	Child	
Planting	Hrs	20.7	22.0	-	2.4	6.5	0.7	1.4	-	53.7
	%	38.5	41.0	-	4.4	12.1	1.3	2.6	-	99.9
Weeding	Hrs	21.7	62.7	-	3.4	2.6	-	-	-	90.4
	%	24.0	69.3	-	3.7	2.8	-	-	-	99.8
Harvesting	Hrs	13.4	33.1	-	-	4.2	-	-	-	50.7
	%	26.4	65.3	-	-	8.3	-	-	-	100.0
Shelling and Soaking Drying	Hrs	2.8	44.8	-	9.8	1.5	-	-	-	58.9
	%	4.7	76.1	-	16.6	2.5	-	-	-	99.9
Marketing	Hrs	2.6	3.4	0.1	0.1	0.1	-	-	-	6.3
	%	41.3	54.0	1.6	1.6	1.6	-	-	-	100.1

Adapted from A.E.S. Report No. 9, Table 22, P. 60

Table 3 : Labour Use for Main Crops by Month (hours per acre) 1972/73

Month	Maize	Groundnuts	Millet	Oriental tobacco	Other Crops
Sept '72	8	7	4	14	99
Oct.	5	1	4	55	88
Nov.	21	4	4	195	105
Dec.	40	31	14	69	15
Jan '73	45	37	27	134	25
Feb.	17	33	22	215	56
March	7	23	27	801	38
April	5	3	11	1166	25
May	19	17	12	934	22
June	5	81	41	213	25
July	4	64	56	71	21
Aug. '73	18	31	21	14	15
Total	194	332	243	3884	533

Adapted from AES Report 21 Table 44, P. 50.

Table 4 : Labour use for Oriental tobacco by Operation and Type of Workers (hours and % per acre)

Operation	Males 15+ years		Females 15+ years		Children 5-15 years		Total	
	Hours	%	Hours	%	Hours	%	Hours	%
Land clearing	72	63.2	21	18.4	21	18.4	114	100
Nursery work	339	58.8	186	32.2	52	9.0	577	100
Fertilizing	22	48.9	16	35.5	7	15.5	45	99.9
Weeding	4	44.4	5	55.6	-	-	9	100
Harvesting	149	18.5	195	24.2	461	57.3	805	100
Stringing clearing	564	24.7	575	25.2	1144	50.1	2283	100
Marketing	33	64.7	14	27.4	4	7.8	51	99.9
Total hours	1183	1012	1689	3884				

Adapted from AES Report No. 21, P. 52

AGRO-ECONOMIC SURVEY

Report No. 21

CHISASA: A farm economic survey of Oriental tobacco and Food Crop growers in the South Western part of Mzimba District, Malawi, December, 1977.

Table 1 : Classification of Households According to Type of Tobacco growers and Non-growers

	Growers	Non-Growers	All Households	
			Number	%
Man or Woman	3	-	3	5.0
Man or Woman + Children	10	1	11	18.3
Man and Woman	2	3	5	8.3
Man and Woman(en) + Ch Under 5	3	5	8	13.3
Man and Woman + Ch. Over 5	10	14	24	40.0
Man and Woman + Over 5	2	7	9	15.0
Total	30	30	60	100.0

Adapted from AES Report 21 Table 39, P. 45.

Table 2 : Breakdown of the mean household labour force for 1971/72 and 1972/73

Labour force	1971/72	1972/73
Manhead	42	46
Female head	56	59
Other wives	9	10
Other Males Over 15 years	10	17
Other Females Over 15 years	17	17
Children 6-14 years	61	56
Children Under 5 years	63	70
Total	258	274

Adapted from AES Report 21 Table 38, P. 45

### Labour distribution of farm operations in Mbawa\*

A survey was conducted in Mbawa, Mzimba South, in three villages (Filimoni Nguluku, Kawinga Banda, and Thoza) in 1970/71 to obtain data on maize, groundnuts and oriental tobacco cropping systems. Therefore, the survey is a case study rather than a sample survey. The sample included 18 tobacco growers (55 total households). Out of 55 households, 15 male heads were not present. The mean size of holding was 3.2 hectares compared to a Malawi average of 1.7 hectares. Thoza had 5% of the total cultivated acreage under tobacco, Kawinga Banda had .4% and Filimoni Nguluku had none. All households grew maize, maize and beans, groundnuts and millet.

Table 1 presents categories of work and type of worker. Over the entire season, female heads and wives work as many hours as male on agricultural operations (see also Table 2). The average agricultural working day is 2.0 hours for male heads and 1.9 hours for female. Males do much of the crop field work (45.1%). Females and males clear land and prepare it; children take care of livestock.

Labour use for the food crops is presented in Tables 3 (maize), 4 (groundnuts), and 5 (millet). Females perform most of the activities connected with production of these crops but male heads also participate a great deal. Children and hired labour are used only slightly. This pattern of the households heads being responsible for the food crops is similar to that found in Lake Chilwa.

For the cash crop of oriental tobacco, labour is distributed also fairly evenly between males and females. Men and women do similar amounts on nursery work and marketing. Women do 67.1% of the fertilizing and 53.5% of the harvesting and more work on weeding, curing and marketing than any other category of worker. Men do 51% of the planting. (Table 6). Unlike Chisasa, children do not work very much on curing and stringing (only 15.5%), male and female heads share this task. The labour use for this crop is very high (1238.5 hours) compared with the food crops (224.6 for maize, as an example). Although the only cash crop in the area, oriental tobacco is not very satisfactory in terms of its high labour requirements and low returns on labour.

Hired labour was used by 31 households to assist in planting, weeding, harvesting and ploughing. It was not used for oriental tobacco except in curing operations.

---

\*Based on data from Reports No. 4 (July, 1971) and 11 (May, 1973), Mbawa, Mzimba District. At time of printing tables for Report 4 were un available.

Table 5 : Proportion of time Spent on Agricultural Operations Carried Out by Hired Labour (%)

Month	Males 15+	Females 15+	Children 5-14 years	Total Hired Labour
Sept'72	0.6	-	6.9	7.5
Oct.	3.0	0.1	3.2	6.3
Nov.	0.9	1.4	2.0	4.3
Dec.	2.1	2.1	2.2	6.4
Jan'73	2.3	4.2	0.6	7.1
Feb.	3.3	6.2	0.8	10.3
March	0.7	6.7	19.4	26.8
April	1.3	6.2	24.8	32.3
May	1.2	4.8	20.4	26.4
June	2.9	1.5	5.0	9.5
July	0.8	4.5	2.9	8.2
Aug'73	2.1	3.4	3.5	9.0
Total	1.7	3.9	8.9	14.5

Adapted from AES Report 21, Table 46, P. 57

Table 3 : Mean annual number of working hours per working day

	Agricultural Work	Non-Agricultural Work	Total
Man heads	2.0	2.6	4.6
Female heads/wives	1.9	3.9	5.8
Other males +15	0.7	1.5	2.2
Other females +15	0.9	2.3	3.2
Children -14	0.3	0.3	0.6

Source: AES Report No. 11; Table 10A, P.18

Table 4 : Distribution of Maize Garden Labour Use by Operation and Type of Labour (hours/acre)

Type of Operation	Man Head	Female Heads Wivos	Other Males 15+	Other Females 15+	Children 14+	Hired Labour			Total
						Males	Females	Child	
Fertilizing Hrs	1.2	2.1	0.4	0.3	0.4	0.7	-	-	5.1
%	23.5	41.2	7.8	5.9	7.8	13.7	-	-	100
Planting Hrs	15.7	21.7	3.4	3.1	3.7	0.7	-	-	48.3
%	32.5	44.9	7.0	6.4	7.7	1.4	-	-	100
Weeding Hrs	49.2	49.6	11.0	7.6	9.3	2.5	4.6	1.2	135.0
%	36.4	36.7	8.1	5.6	6.9	1.8	3.4	0.9	100
Harvesting Hrs	8.8	16.9	2.6	4.8	2.1	0.7	1.4	-	37.3
%	23.6	45.3	7.0	12.9	5.6	1.9	3.8	-	100
Threshing Hrs	0.3	1.2	-	3.2	0.3	0.6	0.3	-	5.9
%	5.1	20.3	-	54.2	5.1	10.2	5.1	-	100
Marketing Hrs	0.5	0.7	-	-	0.1	-	-	-	1.3
%	38.5	53.8	-	-	7.7	-	-	-	100
Total Hrs	75.7	92.2	17.4	19.0	15.9	5.2	6.3	1.2	232.9
%	32.5	39.6	7.5	8.2	6.8	2.2	2.7	0.5	100

\* Adapted from AES Report No. 11 Table 10, PP 75-76

AGRO-ECONOMIC SURVEY

Report No. 11

MBAWA: A farm management survey among Oriental Tobacco, Maize and Groundnut Growers in the Southern part of Nzimba District, Malawi, May, 1973.

Table 1 : Number of Working Hours per Day by Type of Worker (mean/month)

	Man Head		Female Head, Wives		Other Males 15+		Other Females 15+		Children 14-	
	Agric	Non-Agric	Agric	Non-Agric	Agric	Non-Agric	Agric	Non-Agric	Agric	Non-Agric
Sept '70 Mean	0.9	2.7	0.5	3.7	0.5	1.7	0.2	2.2	0.1	2.2
Oct '70 Mean	1.5	3.0	0.9	4.1	0.4	2.4	0.2	2.6	0.1	1.6
Nov '70 Mean	2.8	1.9	2.3	3.9	0.9	1.3	0.8	2.2	0.2	1.4
Dec '70 Mean	4.5	1.7	3.9	3.9	1.4	1.8	1.2	2.0	0.5	1.4
Jan '71 Mean	3.6	1.8	3.2	4.0	1.7	1.1	1.0	1.3	0.4	1.3
Feb '71 Mean	3.1	1.9	2.9	4.0	1.7	0.8	1.4	2.2	0.4	1.0
Mar '71 Mean	1.7	3.1	1.4	4.0	0.5	1.3	0.9	2.7	0.2	1.2
Apr '71 Mean	1.2	3.1	1.3	4.0	0.3	1.8	0.5	2.8	0.2	1.1
May '71 Mean	2.0	3.3	2.1	4.1	0.4	1.9	1.5	2.5	0.4	1.3
Jun '71 Mean	1.7	3.8	1.9	4.6	0.5	1.7	1.2	2.3	0.3	1.2
Jul '71 Mean	1.0	3.6	1.3	4.7	0.3	2.0	1.5	3.1	0.1	1.1
Aug '71 Mean	0.4	1.4	0.5	2.0	0.1	0.7	0.7	1.6	0.1	0.4
Annual Mean	2.0	2.6	1.9	3.9	0.7	1.5	0.9	2.3	0.3	1.3

\* Adapted from AES Report 11, table 3, p. 55

Table 2 : Categories of Work and Type of Worker

Category of Work		Man Head	Female Head Wives	Other Males 15+	Other Females 15+	Children 14-	Hired Labour			Total
							Males	Females	Child	
Garden Clearing	Hrs	1982	2176	712	206	355	79	-	4	5514
	%	35.9	39.5	12.9	3.7	6.4	1.4	-	0.1	100
Preparation	Hrs	3451	2287	1323	84	326	1123	114	-	8708
	%	39.6	26.3	15.2	1.0	3.7	12.9	1.3	-	100
Crop Field Work	Hrs	22982	3307	6103	7376	6048	2002	2678	433	50929
	%	45.1	6.5	12.0	14.5	11.9	3.9	5.2	0.8	100
Care of Livestock	Hrs	6900	668	5623	41	24668	1603	97	1831	41431
	%	16.6	1.6	13.6	0.1	59.5	3.9	0.2	4.4	99.9
Misc. farm Oper.	Hrs	10451	5080	2016	804	1417	1770	81	-	21619
	%	48.3	23.5	9.3	3.7	6.6	8.2	0.4	-	100

Adapted from AES Report 11, table 5, p. 57

## ANNEX 1

Labour distribution of farm operations for farming systems in Malawi

	<u>A.E.S. Report No.</u>	<u>Page</u>
I Subsistence		
1. Masambanjati	5	1
2. Nkhota-kota	6	7
3. Namwera	31	10
II Groundnuts		
4. Nsanje South	22	12
III Rice-irrigated and non-irrigated		
5. Hara irrigated	1, 8	14
6. Karonga North	3, 18	17
7. Lake Chilwa irrigated	9	27
IV Tobacco		
8. Chisasa	22	30
9. Mbawa	4, 11	34
V Cotton		
10. Ngabu	2, 7, 15	39
11. Henga Valley	34	46
12. Kasupe West	33	51
VI Cotton/tobacco		
13. Bwanje Valley	25	55
VII Smallholder coffee and tea		
14. Northern region (coffee)	26	60
15. Mulanje (tea)	19	65

Table 5 : Distribution of Groundnuts Garden Labour Use by Operation and Typo.of-Labour (hours and %/acre) \*

Type of Operation		Man Head	Female Heads Wives	Other Males 15+	Other Females 15+	Children 14+	Hired Labour			Total
							Males	Females	Child	
Planting	Hrs	10.0	24.2	1.2	1.5	4.5	1.4	0.6	-	43.4
	%	23.0	55.8	2.8	3.4	10.4	3.2	1.4	-	100
Weeding	Hrs	23.8	39.0	7.9	9.4	6.7	0.9	5.7	3.0	96.2
	%	24.5	40.5	8.2	9.8	7.0	0.9	5.9	3.1	100
Harvesting	Hrs	17.9	83.8	8.7	33.9	24.5	5.6	12.8	-	187.2
	%	9.6	44.8	4.6	18.1	13.1	3.0	6.8	-	100
Shelling	Hrs	8.6	16.4	1.2	15.8	3.9	-	5.8	0.2	51.9
	%	16.6	31.6	2.3	30.4	7.5	-	11.2	0.4	100
Marketing	Hrs	1.4	0.5	0.1	0.4	-	-	-	-	2.4
	%	58.33	20.83	4.16	16.66	-	-	-	-	100
Total	Hrs	61.5	163.9	19.1	61.0	39.6	7.9	24.9	3.2	381.1
	%	16.1	43.0	5.0	16.0	10.4	2.1	6.5	0.8	100

\* Adapted from AES Report No. 11, Table 20, PP 77-78

Table 6 : Distribution of Millet Garden Labour Use by Operation and Type of Labour (hours and %/acre) \*

Type of Operation		Man Head	Female Heads Wives	Other Males 15+	Other Females 15+	Children 14+	Hired Labour			Total
							Males	Females	Child	
Planting	Hrs	12.6	11.8	1.2	0.5	0.3	-	0.3	-	26.7
	%	47.2	44.2	4.5	1.9	1.1	-	1.1	-	100
Weeding	Hrs	28.0	22.9	1.1	1.5	3.5	3.3	1.7	-	62.0
	%	45.2	37.0	1.8	2.4	5.6	5.3	2.7	-	100
Harvesting	Hrs	10.8	84.4	2.7	22.3	2.9	22.5	16.0	-	169.6
	%	11.1	49.8	1.6	13.1	1.7	13.3	9.4	-	100
Threshing	Hrs	0.2	1.1	-	0.7	1.0	-	-	-	3.0
	%	6.7	36.7	-	23.3	33.3	-	-	-	100
Marketing	Hrs	-	0.2	-	0.3	1.3	-	-	-	1.8
	%	-	11.1	-	16.7	72.2	-	-	-	100

\* Adapted from AES Report No. 11, Table 21, PP 79-80

Table 7 : Distribution of Turkish Tobacco Garden Labour Use by Operation and Type of Labour (hours and % per acre)

Type of Operation		Man Head	Female Heads Wives	Other Males 15+	Other Females 15+	Children 14+	Hired Labour			Total
							Males	Females	Child	
Nursery Work	Hrs	7.3	7.1	-	0.2	0.4	-	-	-	15.0
	%	48.7	47.3	-	1.3	2.7	-	-	-	100
Fertilizing	Hrs	1.4	4.9	0.4	-	0.6	-	-	-	7.3
	%	19.2	67.1	5.5	-	8.2	-	-	-	100
Planting	Hrs	135.1	103.9	16.4	3.5	7.5	-	-	-	266.4
	%	50.7	39.0	6.2	1.3	2.8	-	-	-	100
Weeding	Hrs	1.8	2.6	0.8	0.6	0.6	-	-	-	6.4
	%	28.1	40.6	12.5	9.4	9.4	-	-	-	100
Harvesting	Hrs	40.2	88.6	2.4	17.3	17.2	-	-	-	165.7
	%	24.3	53.5	1.4	10.4	10.4	-	-	-	100
Curing	Hrs	252.1	301.9	40.3	88.7	129.0	11.5	-	7.0	830.5
	%	304.4	36.4	4.8	10.7	15.5	1.4	-	0.8	100
Marketing	Hrs	11.8	12.9	0.8	2.8	-	-	-	-	28.3
	%	41.7	45.6	2.8	9.9	-	-	-	-	100

\* Adapted from AES Report No. 11, Table 22, PP 82-83

## Labour distribution of farm operations in Ngabu\*

Chapomoka and Nalipoko villages near Ngabu town in Chikwawa District, within the Chikwawa Cotton Development Project were surveyed in 1968/69, 1969/70, and 1970/71. Daily records were made on fifty total households in the two villages. Unlike the usual pattern in Malawi, there were slightly more males than females in the sampled areas, probably because cotton growing provides opportunities for employment. The holdings were larger than average for Malawi, (1.7 ha) with 94% of all holdings larger than 2.3 hectares. Half of the total available acreage was under cotton. Cotton was the most common cash crop while maize and finger millet was the most common food crop.

Table 1 presents details of work categories and type of worker. Field work, after harvest work (including cotton grading), and marketing was done by other adults and older children (31.0, 38.2 and 38.2% respectively), followed by males (24.3, 21.9, and 31.0% respectively), and females (26.3, 20.7, and 12.9% respectively). Hired labour was used for all operations, accounting the most hours (32,964) on field work as well as livestock tenders (73.9%). In later surveys, type of worker was broken down even further, e.g., male, female, child, hired labour.

The length of the agricultural working day is presented in Table 2. Males generally work a longer day on farm tasks because women, in addition to field work, also had domestic work. Adult males and labourers work more hours than the male head of household.

Two types of cotton gardens are grown-sprayed and unsprayed. Tables 3 and 4 show labour requirements for sprayed and unsprayed cotton. The operations are planting, weeding, thinning, spraying, harvesting, grading, marketing, and uprooting and burning. Some differences exist in data reported in A.E.S. No. 7 and No. 15. Since No. 15 breaks down the operations in more detail, that data is discussed here. Interestingly enough, hired male labour did most of the weeding, marketing and uprooting and burning in sprayed cotton fields; female heads and wives did the majority of the other tasks including planting, thinning, spraying, and harvesting and grading. All females did 46.2% of the grading, a task usually done at home. In unsprayed cotton plots, male heads did much of the planting and weeding while female heads and wives performed the majority of other tasks. Unlike sprayed cotton, all males were responsible for 45.5% of the time spent grading cotton. In terms of hours, though, more time must be spent grading sprayed cotton due to higher yields.

Maize and millet monoculture gardens occupied much female time (Tables 4 and 5) as did the maize/millet intercropped gardens (Table 6). Males did not participate at all in millet threshing or marketing. Table 7 presents data on maize/cotton intercropping and once again, when the cash crop was involved, males participation increased, especially in planting weeding and spraying. The use of hired labour also increased.

\* Based on data from A.E.S. No. 2 (1967), No. 7 (1972) and No. 15 (1975), Ngabu, Chikwawa District.

AGRO-ECONOMIC SURVEY

Report No. 7

NGAEU: A sample farm management survey of Cotton Growers near Ngabu  
in Chikwawa District, Malawi. February, 1972.

Table 1 : Categories of Work and Type of Worker

Category of Worker	Field Work		After Harvest		Marketing		Livestock	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	45276	24.3	16619	21.9	4215	31.0	290	8.2
Females	49002	26.3	15691	20.7	1754	12.9	7	0.2
Other Adults	57707	31.0	27249	35.9	5191	38.2	621	17.7
Hired Labour	32904	17.7	15583	20.5	2386	17.6	2598	73.9
Ch.r.11	1437	0.7	782	1.0	34	0.3	-	-
Total	186386	100.0	75915	100.0	13580	100.0	3516	100.0

Adapted from A.E.S. Report No. 7, P. 16.

Table 2 : Distribution of Sprayed Cotton Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre)

Category of Worker	Clearing		Preparation		Planting		Weeding		Spraying		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	1.8	12.3	3.8	10.2	4.1	12.2	22.9	26.9	4.2	11.5	19.1	10.1
Females	2.1	14.4	2.4	6.4	3.4	10.1	10.2	12.0	5.1	14.0	19.0	10.0
Other Adults	7.7	52.7	7.8	20.9	14.4	42.7	25.3	29.7	10.8	29.0	68.1	38.9
Hired Labour	3.0	20.5	23.3	62.5	1.8	35.0	26.0	30.5	16.4	44.9	82.3	43.4
Ch.r.11	-	-	-	-	-	-	0.8	0.9	-	-	1.3	0.6
Total	14.6	99.9	37.3	100.0	33.7	100.0	85.2	100.0	36.5	100.0	189.8	100.0

Source: A.E.S. Report No. 7, P. 24

Table 3 : Distribution of Unsprayed Cotton Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre)

Category of Worker	Clearing		Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	4.8	34.0	9.1	33.8	11.3	41.5	47.8	43.9	42.1	24.0
Females	3.3	23.9	6.4	23.8	5.3	19.5	24.0	22.1	37.4	21.3
Other Adults	3.6	26.1	6.8	25.3	7.3	26.8	25.5	23.4	51.1	29.1
Hired Labour	1.9	13.8	4.6	17.1	3.2	11.8	11.2	10.3	44.6	25.4
Ch.r.11-	0.2	1.4	-	-	0.1	0.4	0.3	0.3	0.2	0.1
Total	13.8	100.0	26.9	100.0	27.2	100.0	108.8	100.0	175.4	99.9

Source: A.E.S. Report No. 7, P. 25

Table 4 : Distribution of Maize Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) \*

Category of Worker	Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	6.7	23.1	4.6	20.9	20.7	25.4	17.0	21.3
Females	12.0	41.4	7.9	35.9	30.6	37.5	27.9	34.9
Other Adults	7.9	27.2	6.4	29.1	23.0	28.2	27.4	34.3
Hired Labour	2.4	8.3	3.0	13.6	6.8	8.3	7.3	9.1
Ch.r.11-	-	-	0.1	0.5	0.5	0.6	0.3	0.4
Total	29.0	100.0	22.0	100.0	81.6	100.0	79.9	100.0

\* Adapted from A.E.S. Report No. 7, P. 26

Table 5 : Distribution of Millet Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) \*

Category of Worker	Garden Clearing		Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	0.1	5.0	2.5	10.6	6.0	25.4	23.5	21.5	2.7	7.4
Females	0.9	45.0	13.0	55.1	10.6	44.9	55.6	50.8	20.0	55.1
Other Adults	1.0	50.0	7.7	32.6	6.8	28.8	27.7	25.3	8.6	23.7
Hired Labour	-	-	0.2	0.8	0.2	0.8	2.2	2.0	2.2	6.1
Ch.r.11-	-	-	0.2	0.3	-	-	0.4	0.4	2.8	7.7
Total	2.0	100.0	23.6	99.9	23.6	99.9	109.4	100.0	36.3	100.0

\* Adapted from A.E.S. Report No. 7, P. 27

Table 6 : Distribution of Maize/Millet Garden Labour Requirements by Category of Operation and Type of Labour (hours and % per acre) \*

Category of Worker	Preparation		Planting		Weeding		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%
Males	5.8	16.3	4.4	19.8	18.5	17.5	16.0	16.9
Females	18.2	51.1	10.2	45.9	56.2	53.0	26.9	28.3
Other Adults	10.9	30.6	7.6	34.2	29.0	27.4	45.1	47.5
Hired Labour	0.7	2.0	-	-	1.4	1.3	1.1	1.2
Ch.P.11-	-	-	-	-	0.9	0.8	5.8	6.1
Total	55.6	100.0	22.2	99.9	106.0	100.0	94.9	100.0

\* Adapted from A.E.S. Report No. 7, P. 28

Table 7 : Distribution of Maize/Cotton Garden Labour Requirements by Category of Operation and Type of Labour (Hours and % per acre).

Category of Worker	Preparation		Planting		Weeding		Spraying		Harvesting	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Males	12.4	28.4	6.2	36.7	32.8	40.0	2.2	20.8	33.1	18.7
Females	11.8	27.1	5.8	34.3	24.4	29.7	4.5	14.1	41.5	23.5
Other Adults	14.8	33.9	4.4	26.0	17.1	20.8	4.5	42.5	64.2	36.3
Hired Labour	4.3	9.9	0.5	3.0	7.8	9.5	2.4	22.5	34.7	19.6
Ch.P.11-	0.3	0.7	-	-	-	-	-	-	3.4	1.9
Total	43.6	100.0	16.9	100.0	82.1	100.0	10.6	100.0	176.9	100.0

Adapted from A.E.S. Report No. 7, P. 29

NGABU : A sample farm management survey of cotton  
 Food growers in two villages in the vicinity of Ngabu in  
 Chikwawa District, February 1975.

Table 1 Average Length of Working Day by Individual Operation and type of workers.

Type of worker Type of Operation	Male	Adult Male	Adult female	Child	Male Labourer	Female Labourer	Child labour	All
Clearing, Up- rooting, burning	4.47	7.25	4.64	3.33	5.80	5.25	3.33	4.67
Ploughing ridging	4.97	5.83	4.32	2.86	4.71	-	2.86	4.56
Planting	5.93	6.55	5.51	5.23	5.22	-	5.23	5.72
Supplying	5.65	6.70	5.70	6.00	-	-	6.00	5.34
Weeding	5.72	6.76	6.00	4.27	7.88	-	4.27	5.86
Thinning	6.36	6.34	5.98	5.31	-	-	5.31	6.16
Spraying	5.86	7.73	5.23	5.25	-	-	5.25	5.59
Picking	6.56	7.24	6.33	5.19	6.61	5.87	5.19	6.29
Grading	7.07	7.55	6.91	5.54	7.21	7.50	5.54	6.86
All Operations	5.97	7.10	5.88	4.87	6.67	6.26	4.87	5.94

Adapted from AES 15, p. 23 Table 21.

adapted from Farrington, J., Factors influencing the  
 length of working day in Malawi agriculture.

Table 2 Distribution of sprayed cotton garden labour requirements by operation and category of worker (Hours and % per acre)

Category of Worker	Planting		Weeding		Thinning		Spraying		Harvesting		Grading		Marketing		Uprooting & Burning	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Man head	7.9	24.9	21.9	20.0	7.8	24.4	5.1	19.1	22.2	12.9	38.4	15.9	4.4	19.6	9.0	14.2
Female head wives	7.9	24.9	20.5	18.7	9.9	30.9	7.5	28.1	42.1	24.5	51.6	21.4	3.4	15.1	13.7	21.6
Other males 15+	3.1	9.8	10.2	9.3	4.7	14.7	3.5	13.1	14.5	8.4	23.9	9.9	3.9	17.3	5.4	8.5
Other Females 15+	5.0	15.8	14.3	13.1	2.9	9.1	2.1	7.9	21.2	12.3	50.6	21.0	2.0	8.9	10.8	17.0
Children 14-	1.0	3.2	2.6	2.4	1.4	4.4	1.4	5.2	7.3	4.2	15.3	6.3	1.6	7.1	2.3	3.6
Hired labour male	6.5	20.5	27.9	25.5	5.1	15.9	7.0	26.2	31.9	18.6	33.8	14.0	6.6	29.3	18.4	29.0
Hired labour female	3	9	9.9	9.0	2	6	1	4	24.8	14.4	9.2	3.8	-	-	2.5	3.9
Hired labour children	-	-	2.1	1.9	-	-	-	-	7.9	4.6	18.7	7.7	.6	2.7	1.4	2.2
TOTAL	31.7	100	109.4	99.9	32	100	26.7	100	171.9	99.9	241.5	100	22.5	100	63.5	100

Source : adapted from AES, no. 15, Table 39, pp 39 - 45

Table 3 Distribution of unsprayed cotton garden labour requirements by operation and category of worker (hours and % per acre)

Category of worker	Planting		Weeding		Thinning		Harvesting		Grading		Marketing		Uprooting and burning	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Man head	14.2	43.4	29.1	30.2	2.9	10.3	32.9	24.3	44.4	25.9	3.8	22.1	8.5	31.1
Female head wives	7.9	24.2	24.8	25.8	4.8	32.0	39.6	29.2	49.2	28.7	4.6	26.7	8.6	31.5
Other males 15+	2.3	7.0	9.5	9.9	3.6	24.0	14.6	10.8	19.1	11.1	3.1	18.0	4.5	5.5
Other females 15+	2.5	7.6	8.4	8.7	1.0	6.7	12.3	9.1	18.2	10.6	2.2	12.8	2.5	9.2
Children 14-	2.7	8.2	7.3	7.6	0.6	4.0	12.1	8.9	20.6	12.0	2.0	11.6	1.6	5.9
Hired labour male	2.9	8.9	11.4	11.8	1.8	12.0	15.2	11.2	14.3	8.3	1.3	7.6	3.7	13.6
Hired labour female	2	6	4.9	5.1	0.3	2.0	5.8	4.3	1.0	.6	-	-	0.9	3.3
Hired labour children	-	-	0.8	.8	-	-	3.1	2.3	4.8	2.8	0.2	1.2	-	-
TOTAL	32.7	99.9	96.2	99.9	15.0	100.0	135.6	100.1	171.6	100.0	17.2	100.0	27.3	100.1

Source : adapted from AES, No. 15, Table 40, pp 46 - 50,

Annex 1

Table 4 : Distribution of Maize Garden Labour Use by Operation and Category of Worker (hours and % per acre)

Category of Worker	Planting		Weeding		Scaring		Harvesting		Threshing		Marketing	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Man Head	8.5	24.0	13.7	17.2	10.2	25.0	14.8	21.1	0.6	13.0	1.9	29.7
Female Head Wives	15.7	44.4	28.9	36.3	-	-	29.8	42.6	1.9	41.3	1.2	18.0
Other Males 15+	1.9	5.4	3.7	4.6	-	-	4.3	6.1	0.1	2.2	0.3	4.7
Other Females 15+	3.3	9.3	1.2	1.4	-	-	12.4	17.7	1.1	23.9	0.6	9.4
Children 14-	2.7	7.6	3.3	4.1	0.6	75.0	4.0	5.7	0.3	6.5	0.5	7.8
Hired Labour Male	3.2	9.0	9.6	12.1	-	-	2.1	3.0	0.6	13.0	1.0	15.6
Hired Labour Female	0.1	3	5.2	6.5	-	-	2.2	3.1	-	-	0.5	7.8
Hired Labour Child	-	-	4.0	6.0	-	-	0.4	6	-	-	0.4	6.2
Total	35.4	100.0	79.6	99.9	0.8	100.0	70.0	99.9	4.6	99.9	6.4	100.0

Source: Adapted from A.E.S. Report No. 15, Table 41, PP. 50-52

Table 5 : Distribution of Millet Garden Labour Use by Operation and Category of Worker (hours and % per acre)

Category of Worker	Planting		Weeding		Scaring		Harvesting		Threshing		Marketing	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Man Head	8.0	22.6	8.3	20.8	5.9	7.1	9.0	14.9	-	-	-	-
Female Head Wives	18.8	53.1	22.4	56.0	52.2	62.8	40.1	66.5	18.1	71.5	0.4	57.1
Other Males 15+	1.4	4.0	3.7	9.2	6.4	7.7	2.0	3.3	-	-	-	-
Other Females 15+	3.6	10.2	2.1	5.2	4.0	4.8	3.5	5.9	5.2	20.6	0.2	28.6
Children 14-	3.3	9.3	2.5	6.2	14.6	17.6	3.0	6.3	1.4	5.5	0.1	14.3
Hired Labour Male	0.3	0	0.6	1.5	-	-	1.9	3.2	-	-	-	-
Hired Labour Female	-	-	0.3	0	-	-	-	-	0.6	2.6	-	-
Hired Labour Child	-	-	0.1	0.2	-	-	-	-	-	-	-	-
Total	35.4	100.0	40.0	99.9	83.1	100.0	60.3	100.1	25.3	100.2	0.7	100.0

Source: Adapted from A.E.S. Report No. 15, Table 42, PP. 51-53

Labour distribution of farm operations in Henga Valley\*

Several villages in the Henga Valley, northeast of Rumphi, were surveyed in 1974/75 and 1975/76. During the first year of the survey, three villages were studied; during the second year, four more villages were added to the survey. The most important food crops grown in the area were maize, groundnuts, pulses, millet, and maize/pulses intercrops. Cotton growers had an average of 3.3 hectares of cultivable land compared with 2.5 hectares for non-cotton growers. These were distinct differences in cropping patterns and cropping systems among the seven villages and also between cotton and non-cotton growers. The male to female ratio in the survey site was .81 (compared to .90 for Malawi as a whole).

Labour data were collected only for the first year of the survey via twice weekly visits and data was recorded by recall. Female household heads and wives worked the most hours throughout the year, the length of their average working day being 7.4 hours. The average working day for male heads was 6.9 hours. When divided into agricultural and

non-agricultural work, males and females spent the same amount of time on field work (2.2 hours). Hired male labour exceeded that at 4.3 hours. The bulk of women's time was spent, therefore, on domestic activities.

Labour use on four crops (maize, groundnuts, millet and cotton) is presented in Tables 1, 2, 3, and 4. These data were calculated using Farrington's efficiency coefficients (p. 30, Table 5). In maize production, female heads spent more time than any other labour type on all of the activities (land preparation, planting, weeding, harvesting and marketing). Weeding takes the largest amount of labour (260.1 hours) with females spending 47.2% of their time on weeding.

Groundnuts required 1299 hours per hectares of labour compared with 658 hours for maize. Again, women did most of the work associated with groundnut production. Most of their hours were spent on harvesting and threshing (273.9 hours) because the groundnuts have to be dug and decorticated before being sold.

Millet, like groundnuts, did not occupy a large percentage of the land under cultivation but required, again, more labour for production than maize (1,039.6 hours). Female labour had the greatest number of input hours, especially for harvesting and marketing. Males heads assisted in other tasks.

In those households raising cotton, the production of this cash crop involved more male labour input than the food crops production. The majority of males farm labour time is directed toward cotton cultivation. Cotton production requires much more labour per hectare than the food crops (2,442.5 hours). Females make an important contribution to cotton production too especially with picking and grading. Female heads and wives participated in every operation including spraying (34% compared to 47% for male heads) to a significant extent. In fact, the report states that the number of farmers who can undertake cotton production is limited by the amount of available labour. Comparing cotton and non-cotton growers, it was noted that cotton growers have twice as much mature female labour available for farming requirements than non-cotton growers (p. 74).

\*Based on data from A.T.S. No. 34, Henga Valley, Rumphi, May 1979.

In general, the pattern of females being responsible for food crops and males for cash crops is followed here. A significant point however, is that males could not produce the cash crop without a great deal of female labour input.

AGRO-ECONOMIC SURVEY

Report No. 34

HENGA VALLEY: A farm management survey of small holders in Henga Valley  
Rumphi District, Malawi, May, 1979.

Table 1 : Maize - Labour Use by Activity and Type of Labour (hours and % per hectare)

Operation	Male Head	Female Heads and Wives	Other Males 15+	Other Females 15+	Children Under 14	Hired Labour Male	Hired Labour Female	Child	Total
Land Preparation Hours	43.2	75.1	9.9	14.8	22.0	21.5	1.2	13.2	190.9
%	22.6	39.3	5.1	7.6	11.5	11.3	0.6	1.7	99.9
Planting and Fertilizing Hours	16.6	31.4	2.7	13.1	9.9	1.2	-	0.74	75.7
%	21.9	41.4	3.6	17.3	13.0	1.6	-	1.6	99.8
Weeding Hours	71.1	122.0	18.0	19.5	10.9	11.9	4.7	11.2	260.1
%	27.3	47.2	6.9	7.5	4.2	4.6	1.8	0.5	100
Harvesting and Marketing Hours	19.1	79.3	2.7	13.6	14.3	2.0	6.9	-	131.9
%	18.9	60.1	2.0	10.3	10.8	0.2	5.2	-	98.5
Total Hours	144.0	308.6	33.3	61.0	57.1	36.6	12.8	15.5	658.5

Total hours per hectare 658.5

Adapted from AES Report No. 34, Table 31, P. 30

Table 2 : Groundnuts - Total Labour Use by Activity and Type of Labour (hours and % per hectare)

Operation	Male Head	Female Heads and Wives	Other Males 15+	Other Females 15+	Children Under 14	Hired Labour Male	Hired Labour Female	Child	Total
Land Preparation Hours	106.2	112.6	33.7	22.5	18.5	62.7	13.8	0	369.4
%	28.7	30.5	9.0	6.1	5.0	17.0	3.7	-	100
Planting Hours	7.2	40.8	2.4	8.9	3.5	0	0	0	62.8
%	11.5	65.0	3.8	14.2	5.4	-	-	-	100.1
Weeding Hours	44.0	165.7	3.5	15.1	16.1	5.7	62.2	0	312.3
%	14.1	53.1	1.1	4.8	5.2	1.8	19.9	-	100.0
Harvesting Hours	62.2	273.9	25.9	54.8	43.5	65.5	15.3	50.1	501.2
Marketing %	10.5	46.3	4.4	9.3	7.4	11.1	2.6	8.5	100.1
Total Hours	219.6	593.0	64.9	101.3	81.6	133.9	91.3	50.1	1000

Adapted from AES Report No. 34, Table 33, P. 32

Table 3 : Cotton - Total Labour Use by Crop Activity and Type of Labour (hours and % per hectare)

Operation	Male Head	Female Heads and Wives	Other Males 15+	Other Females 15+	Children Under 14	Hired Labour Male	Hired Labour Female	Hired Labour Child	Total
Land Preparation Hours	68.7	48.4	10.6	10.9	13.1	0.7	5.2	6.7	154.3
%	41.8	29.4	6.4	6.6	8.0	0.4	3.2	4.1	100.0
Uprooting and Burning Hours	40.8	25.2	5.9	4.2	3.5	18.3	-	-	97.9
%	41.7	25.7	6.0	4.3	3.6	18.7	-	-	100.0
Planting and Fertilizing Hours	25.0	23.0	7.2	4.7	8.6	-	-	0.7	69.2
%	36.1	33.2	10.4	6.8	12.4	-	-	1.01	100.0
Wooding and Thinning Hours	148.7	133.1	29.9	22.5	5.4	29.8	5.4	6.4	381.0
%	39.0	34.9	7.8	5.9	1.4	7.8	1.4	1.7	100.0
Spraying Hours	40.8	29.4	10.9	3.0	2.0	-	-	-	86.1
%	47.4	34.1	12.6	3.5	2.3	-	-	-	100.0
Picking Hours	2381.1	104.8	77.3	53.4	117.3	34.3	67.7	8.4	2781.3
%	80.5	23.6	9.9	6.8	15.0	4.4	8.7	1.1	100.0
Grading and Marketing Hours	262.8	245.8	130.9	67.9	107.7	28.4	17.0	12.7	682.7
%	30.4	28.5	15.2	7.9	12.5	3.3	2.0	0.3	100.0
Total Hours	824.4	689.7	272.7	166.6	257.6	111.3	95.3	24.9	2442.5

Adapted from A.E.S. Report No. 34, Table 35, P. 33.

Table 4 : Millet - Total Labour Use by Activity and Type of Labour (hours and % per hectare)

Operation	Male Head	Female Heads and Wives	Other Males 15+	Other Females 15+	Children Under 14	Hired Labour Male	Hired Labour Female	Hired Labour Child	Total
Land Preparation Hours	52.1	35.3	7.2	4.4	14.1	27.7	1.7	-	142.5
%	36.8	24.8	5.0	3.1	9.9	19.4	1.2	-	100.0
Planting Hours	66.0	76.3	6.7	8.9	6.4	25.9	11.9	-	202.1
%	32.6	37.8	3.3	4.4	3.2	12.8	5.9	-	100.0
Wooding Hours	55.8	62.0	2.7	4.4	4.2	-	0.5	-	165.6
%	33.5	37.2	1.6	2.6	2.7	-	0.5	-	100.0
Marketing and Harvesting Hours	92.9	243.3	12.4	37.6	34.6	21.2	86.4	-	528.4
%	17.6	46.0	2.3	7.1	6.5	4.0	16.4	-	100.0
Total Hours	266.8	416.9	29.0	55.3	96.3	74.8	100.5	-	1039.6

Adapted from A.E.S. Report No. 34, Table 37, P. 34.

Table 5 : Maize - Efficiency Coefficients by Worker type and Crop Operation

Type of Work	Head of Household	Adult Female	Adult Male	Children
Ridging	1.00	0.79	0.87	0.32
Planting	1.00	0.85	0.91	0.62
Applying Fertilizer	1.00	0.78	0.76	--
Weeding	1.00	0.77	0.90	0.57
Banking and Ridging	1.00	0.80	--	--
Picking	1.00	0.99	0.76	0.62
Shelling	1.00	1.07	--	--

Source: A.E.S. Report No. 34, Table 30, P. 30.

Farrington, Farm Survey in Malawi, University of Reading, Development Study No. 16.

Labour distribution of farm operations in Kasupe West\*

The survey was conducted between November, 1974 and October, 1975. Labour data was recalled by farmers twice weekly and analysis should be viewed with some caution. As a result women did the majority of all farm operations on pure stand maize (Table 1) which is the predominant crop. Cotton is the second most important crop accounting for 30% of the total cultivated land area. Males performed a greater proportion of the cotton work activities, but females participated significantly in all operations and did much more work than hired labour (Table 2). For the other food crops, women did more than men on pulses and maize/millet (Tables 3 and 5). Men and women were similar in the proportion of time they spent on sweet potatoes in terms of land preparation and planting, but women did more of the other operations on this crop.

\*Based on data from A.E.S. No. 33, Kasupe West.

AGRO-ECONOMIC SURVEY

Report No. 33

KUSUPE WEST 1976

Table 1 Maize Labour Inputs per Crop Activity (hours and % per hectare) \*

Type of Labour		Land Preparation	Planting and Harvesting	Weeding	Harvesting and Marketing
Man Head	Hours	35.8	13.8	63.2	24
	%	37.8	42.0	36.0	23.5
Female Head	Hours	36.8	17.8	90.0	67.9
	%	38.9	54.3	51.3	66.4
Hired Labour	Hours	22.0	1.2	22.2	10.3
	%	23.3	3.7	12.7	10.1
Total	Hours	94.6	32.8		
	%	100.0	100.0	100	100

\* Adapted from A.E.S. Report No. 33, Tables 18-20, PP. 20-21

Table 2 Cotton Labour Inputs per Crop Activity (hours and % per hectare) \*

Type of Labour		Land Preparation	Uprooting and burning	Planting and Fertilizing	Weeding and Thinning	Spraying	Picking	Grading and Marketing
Man Head	Hours	73.4	30.4	24.5	170.9	39.5	161.3	161.5
	%	47.3	39.6	60.4	48.4	56.1	48.5	63.4
Female Head/Wivos	Hours	53.1	26.9	15.1	109.2	22.5	100.8	121.3
	%	34.2	35.4	37.2	30.9	32.0	36.3	8.3
Hired Labour	Hours	28.7	19.0	19.9	73.1	8.4	70.2	72.1
	%	18.5	25.0	2.4	20.7	11.9	21.1	28.3
Total	Hours	155.2	76.0	40.59	353.2	70.4	332.3	254.9
	%	100	100	100	100	100	99.9	100.0

\* Adapted from A.E.S. Report No. 33, Tables 23-25, PP. 22-23

Table 3 : Pulses Labour Inputs by Crop Activity (hours and % per hectare) \*

Type of Labour		Land Preparation	Planting and Fertilizing	Weeding	Harvesting and Marketing
Man Head	Hours	151.4	93.6	38.5	88.4
	%	37.7	45.6	20.7	18.3
Female Head/Wives	Hours	157.1	95.1	142.3	395.9
	%	39.2	46.3	76.5	81.7
Hired Labour	Hours	92.6	16.6	5.2	0
	%	23.1	8.1	2.8	0
Total	Hours	401.1	205.3	186.0	484.3
	%	100.0	100.0	100.0	100.0

\* Adapted from A.E.S. Report No. 33, Tables 26-28, P. 24

Table 4 : Sweet Potatoes Labour Inputs by Crop Activity (hours and % per hectare) \*

Type of Labour		Land Preparation	Planting and Fertilizing	Weeding	Harvesting and Marketing
Man Head	Hours	204.5	54.1	31.4	8.2
	%	44.2	50.0	25.8	16.1
Female Head/Wives	Hours	203.5	50.4	90.4	42.7
	%	44.0	46.6	74.2	83.9
Hired Labour	Hours	54.8	3.7		
	%	11.8	3.4		
Total	Hours	462.0	108.2	121.8	50.9
	%	100.0	100.0		83.9

\* Adapted from A.E.S. Report No. 33, Tables 29, 31, 32, pp 25-26

Table 5 : Maize/Millet Labour Inputs by Crop Activity (hours and % per hectare) \*

Type of Labour		Land Preparation	Planting and Fertilizing	Weeding	Harvesting and Marketing
Man Heads	Hours	10.9	12.6	56.8	41.5
	%	21.2	34.0	40.5	28.0
Female Heads/Wivos	Hours	17.3	11.9	77.1	71.6
	%	33.7	32.0	55.0	48.3
Hired Labour	Hours	23.2	12.6	6.2	35.1
	%	45.1	34.0	4.4	23.7
Total	Hours	51.4	37.1	140.1	148.2
	%	100.0	100.0	99.9	100.0

\* Adapted from A.E.S. Report No. 33, Tables 34-36, PP. 26-27

## Labour distribution of farm operations in Bwanje Valley\*

Fifty-nine holdings in Bwanje Valley were surveyed in 1972/73 and 1973/74. Both cotton and tobacco are grown in the area as cash crops. This is the only area in Malawi where this is allowed, because cotton spraying toxifies tobacco. Farmers must have 100 metre rows between the two crops. The average size of a holding was 2.4 hectares in 1973/74. Those farmers growing either cotton or tobacco have larger holdings than non-cash crop growers. Growing a cash crop does not result in a decrease in land under food crops. Food crops grown are maize and groundnuts.

Household composition varies distinctly between non-cash crop growers and cash crop growers. Tobacco and cotton growers were 100% and 92% male headed while the non-tobacco growers and non-cotton growers were 73% and 69% male headed. Off-farm and non-farm activities are the most important component of time (see Figures 3a-d). Peak agricultural labour occurs during December to January and May to June which are times when the household heads increase their agricultural work. The length of the agricultural working day for male heads ranges from a low of 1.2 hours in August to a high of 6.0 hours in December. For female heads, the figures are 1.1 and 4.7 hours for these two months. The females' working day is, of course, longer.

Due to coding mistakes, labour use for various crops is not available except for sun/air cured tobacco production (see Table 1). Nursery work is carried out chiefly by males as is garden preparation, weeding, topping and harvesting. In Chisasa, stringing is done by the male heads (80.2%). Therefore it was chiefly the male head of household who was responsible for tobacco production. Women participate in every operation but especially garden preparation, weeding, and post harvest operations. Although there is no data available in the report, females were pressured to spend their time in agricultural work on food crop production. Hired labour was primarily males over 15 who were used for strenuous work and/or on cash crops.

---

\* Based on data from A.E.S No. 25, Bwanje Valley, September, 1978.

AGRO-ECONOMIC SURVEY

Report No. 25

BWANJE VALLEY: A farm management survey of the smallholders in the  
Bwanje Valley, Malawi. September, 1978.

Table 1 : Distribution of Labour Use for Sun/Air Cured Tobacco by Operation and Sex/Age/Status Category  
(hours/%/acro)

Oper Operation		Male Head	Female Head and Wives	Other Males 15+	Other Fe- males 15+	Children 6-14	Hired Labour			Total
							Male 15+	Female 15+	Children 6-14	
Garden Preparation	Hrs	83.4	29.5	4.7	3.6	3.1	13.0	8.7	3.4	149.4
	%	55.8	19.7	3.1	2.4	2.1	8.7	5.8	2.3	99.0
Nursery Work	Hrs	84.4	9.7	19.1	1.5	19.0	-	1.3	1.1	136.1
	%	62.0	7.1	14.0	1.1	14.0	-	1.0	.8	100.0
Transplanting	Hrs	28.6	8.3	1.1	0.6	0.6	-	-	-	39.2
	%	73.0	21.2	2.8	1.5	1.5	-	-	-	100.0
Fertilizer Application	Hrs	7.7	1.1	1.1	-	0.8	-	-	-	10.7
	%	72.0	10.3	10.3	-	7.5	-	-	-	100.1
Weeding	Hrs	54.1	22.6	5.9	0.6	2.7	7.4	3.8	0.4	97.5
	%	55.5	23.2	6.0	.6	2.8	7.6	3.9	.4	100.0
Topping	Hrs	66.2	11.6	6.4	0.7	1.7	0.2	0.2	0.4	87.4
	%	75.7	13.3	7.3	.8	1.9	.2	.2	.5	99.9
Harvesting	Hrs	43.0	12.4	2.8	2.4	1.0	1.0	0.1	0.4	63.1
	%	60.1	19.6	4.4	3.8	1.6	1.6	.2	.6	99.9
Post Harvest Operations	Hrs	23.0	17.3	2.0	1.6	1.4	1.0	4.8	0.6	51.7
	%	44.5	33.5	3.9	3.1	2.7	1.9	9.3	1.2	100.1
Stringing/ Curing	Hrs	159.0	22.1	6.7	0.7	4.3	3.8	0.4	1.3	198.3
	%	80.2	11.1	3.4	.4	2.2	1.9	.2	.6	100.0
Marketing	Hrs	13.5	8.9	1.0	2.2	0.8	2.1	3.8	0.6	32.9
	%	41.0	27.0	3.0	6.7	2.4	6.4	11.6	1.8	99.9
Total		562.0	143.5	50.8	11.9	35.3	28.5	23.1	8.2	864.2

Adapted from A.E.S. Report No. 25, Table 33, P. 27.

Annex 1

- 56 -

Fig. 3 Distribution of time devoted to various activities per half month period (%)\*

 Crop activities code 100 - 190

 Livestock activities code 200 - 210

 Miscellaneous farm operations code 300 - 306

 Domestic activities code 307 - 315

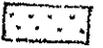
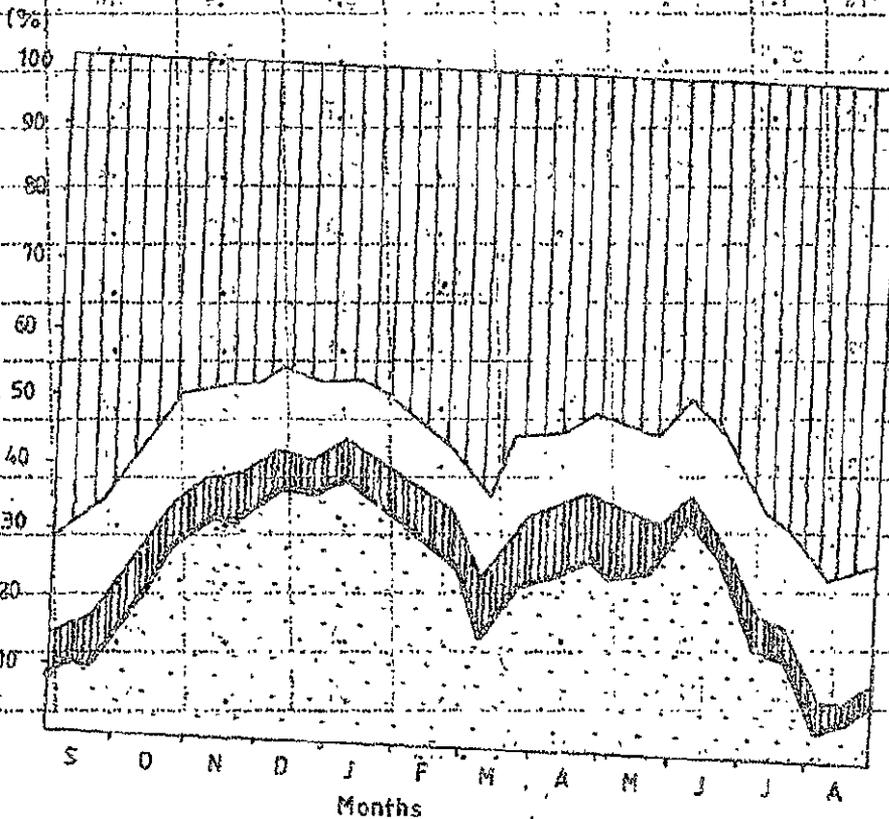
 Off farm and non-farm activities code 320 - 381

Fig 3 a Male head of the household



\*RES No 25 p. 31

Fig.3b Female head and wives \*

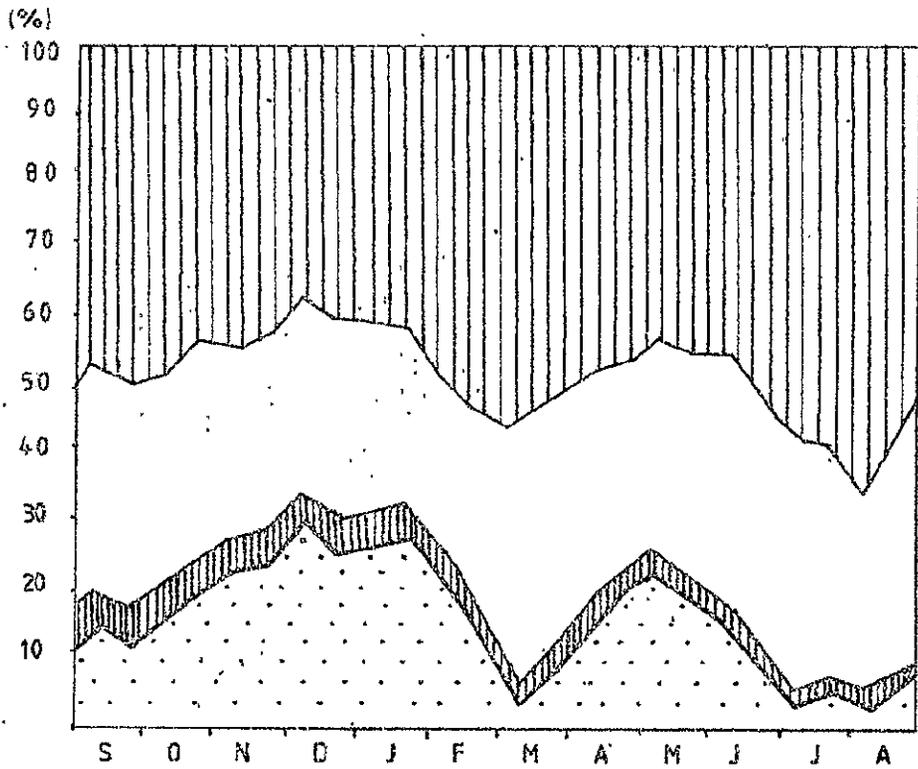
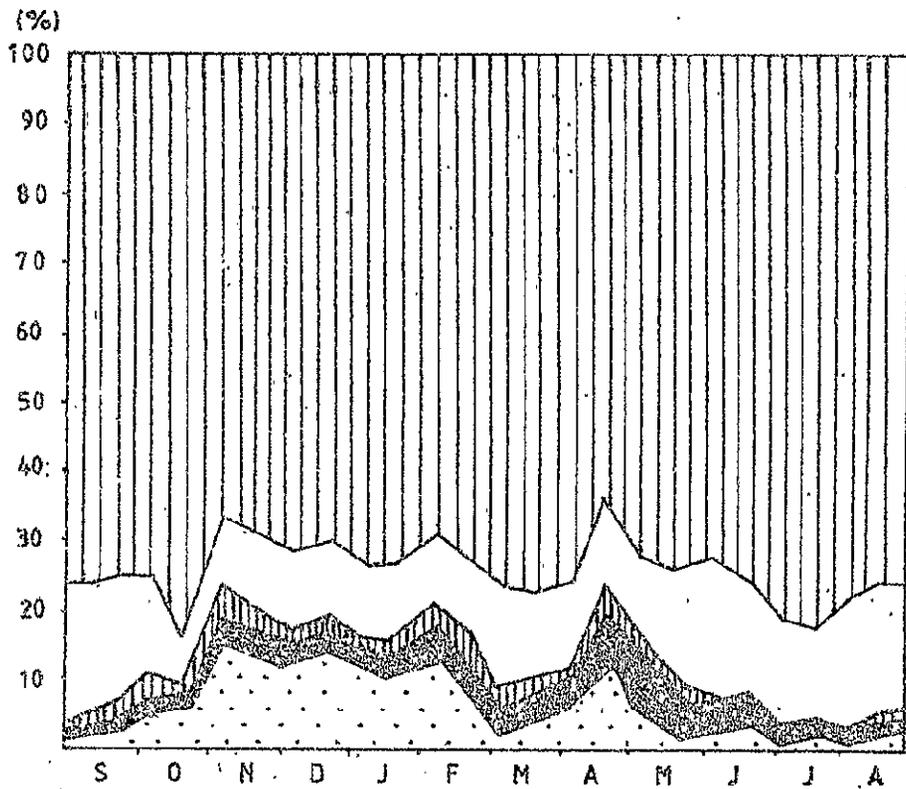


Fig.3c Males of 15 years and over (except for the male head) \*



\* A.E.S. No 25 p 32

Fig.3d Females of 15 years and over (except for female head and wives)\*

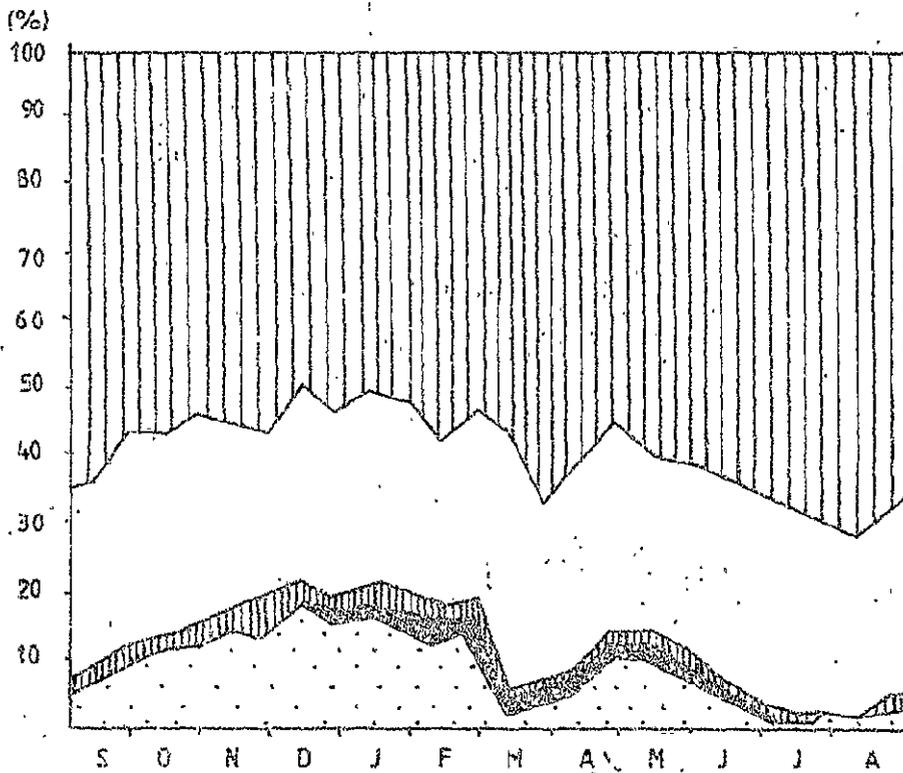
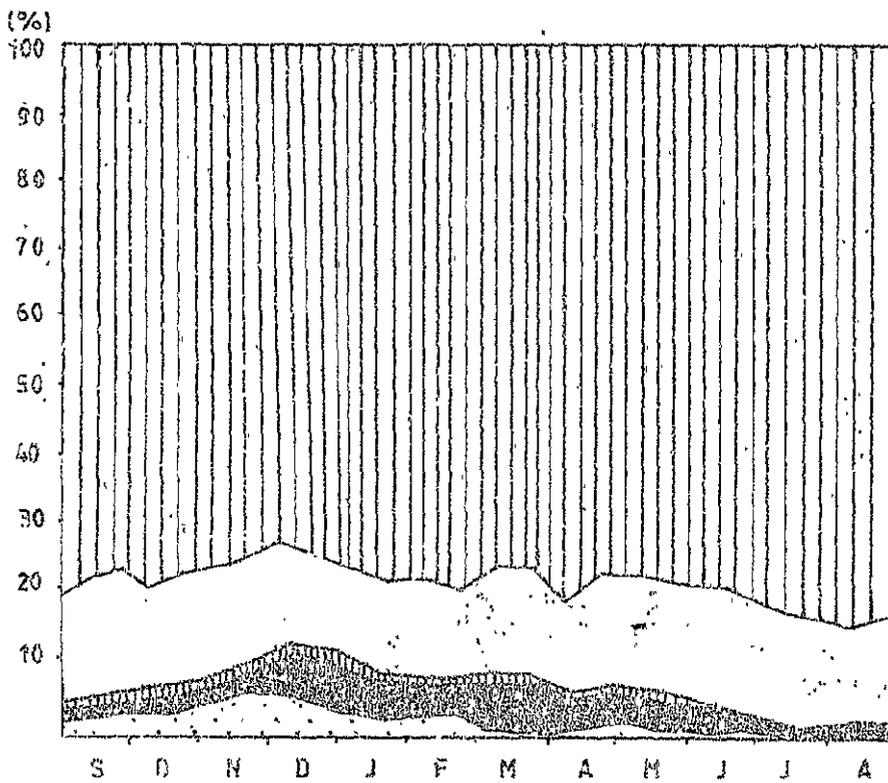


Fig.3 e Children 6-14 years of age \*



\*AES 28 P 33

MULANJE: Smallholder Tea Growers in Mulanje District, Malawi. June, 1976.

Table 1 : Farm Operations by Type of Labour (%)

	Males +15	Females +15	Children 6 - 14
Land Clearing and uprooting	3	7	1
Tilling, ridging, Levelling	10	10	4
Planting, Transplanting, supplying	6	8	4
Weeding	30	28	21
Pruning	5	-	1
Harvesting	22	22	23
Other <sup>2</sup>	23	25	46
Total (%)	100	100	100

<sup>2</sup> Includes fertilizing, spraying, thinning, threshing scaring bird, transport, shelling, marketing, seed selection, storing, livestock operations and miscellaneous farm operations.

Source: A.E.S. Report No. 19, Table 51, P. 64.

Table 2 : Farm Operations by Share of Type of Labour (%)

	Males +15	Females +15	Children 6 - 14	Total (%)
Land Clearing and uprooting	42	56	2	100
Tilling, ridging, Levelling	61	38	3	100
Planting, transplanting, supplying	56	40	4	100
Weeding	62	33	5	100
Pruning	99	-	1	100
Harvesting	59	34	7	100
Other <sup>2</sup>	53	34	13	100

<sup>2</sup> See Table 1.

Source: A.E.S. Report No. 19, Table 54, P. 65

Table 3 : Percentage of Time spent on Tea and Maize by Type of Labour

	Males +15	Females +15	Children 6 - 14	Total (%)
Tea 71/72	68	30	2	100
72/73	75	24	1	100
Maize 71/72	26	71	3	100
72/73	31	66	3	100

TABLE 1: EXTENSION STAFF BY RANK AND SEX IN LADD 1983

	MANAGEMENT UNIT		LRDP		LNE		DZ/H		T/L RDP		NTCHEU		TOTALS	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Senior Land Husbandry Officer P8	1	-	-	-	-	-	-	-	-	-	-	-	1	-
Senior Animal Husbandry Officer P8	1	-	-	-	-	-	-	-	-	-	-	-	1	-
Sen. Agric. Extension Officer P8	2	-	-	-	-	-	-	-	-	-	-	-	2	-
Agricultural Officer PO	6	-	-	-	-	-	-	-	-	-	-	-	6	-
Chief Field Officer CTO	3	-	1	-	1	-	1	-	1	-	1	-	8	-
Senior Field Officer STO	7	-	7	-	1	-	1	-	2	-	1	-	19	-
Field Officer TO	17	1	18	1	6	-	3	-	9	-	9	-	62	2
Senior Field Assistant STA	2	-	18	1	5	-	3	-	6	-	4	-	38	-
Forester TO	-	-	1	-	-	-	-	-	-	-	-	-	1	-
Field Assistants/GPA TA	31	-	168	-	38	-	18	-	148	-	86	-	489	-
Farm Home Assistants TA	-	2	-	42	-	5	-	2	-	4	-	6	-	61
Credit Assistants CO/TA	-	-	80	-	1	-	2	-	4	-	5	-	92	-
Forest Assistants TA	-	-	8	-	-	-	-	-	-	-	-	-	8	-
TOTALS	70	3	301	43	52	5	28	2	170	4	106	6	727	63
PERCENTAGE	96%	4%	87%	13%	88%	12%	93%	7%	98%	2%	95%	5%	92%	8%

Annex 2-3

7. Some RDP Progress Reports have an appendix which gives data on farmers' production. The data should be disaggregated into male and female headed households.
8. Some monthly reports list the crop and the number of farmers growing the crop. List the number of men and women farmers by crop instead.

#### RDP Project Proposals to Donors

Most proposals were prepared before Women's Programmes Section was formed. Most RDP documents have no sex disaggregated data. However, it is desirable to discuss the new interest in and plans for the greater inclusion of rural women into RDP activities in proposals that will be prepared in the future.

1. Proposals for future RDPs should specify the involvement of both men and women.
2. Data on sex ratios and percentage of female-headed households should be presented in the section on population and farm families.
3. Background and progress to date data should be disaggregated by sex (e.g., holding size, crops grown, extension activities, training, farmer adoption, credit, etc.).
4. Section plans for the next phase should include any specific strategies for reaching rural women. Plans to incorporate women into water and afforestation projects could be specified.
5. Women Programmes priorities and objectives should be given.
6. Staff structure for women's programmes should be specified
 

WPO (or WDO)	(PO/STO)	ADD
AWPO	( TO )	RDP
SEHA	( STA )	RDP
FHA	( TA )	EPA
7. The section on farmer's benefits might address itself to the benefits that women as well as men are to receive.

#### Management

Women's Programmes (WP) section is still perceived as supervising Farm Home Assistants (FHAs) who teach home economics. FHAs have not yet balanced out the home economics with agriculture. One problem is that the Women in Development Officer (WDO)\* supervises the FHAs whereas the DOs should coordinate in the supervision. Management feels that FHAs and Homecraft Workers (HCWs) from Community Development should not be mixed in refresher courses because HCWs have much less education and training than FHAs. However, they could attend joint meetings on postings and activities where they can coordinate programmes.

\*LADD's title for the Women's Programmes Officer is Women in Development Officer.





Days Breakdown

EPA/Group/Project																	Total
Days Extension																	
Days Staff Training																	
Days Administration																	
Days Leave																	
Days Sick																	
Number Staff Reported																	
Farmer Training TCS																	

EPA/Group/Project																	Total	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W		
1. No. DTCs/Mobile TCS																		
No. Day Courses																		
Attendance - Agriculture																		
Attendance - Home Economics																		
2. No. RTC Courses																		
Attendance - Agriculture																		
Attendance - Home Economics																		

Comments

EPA/Group/Project																		
	M	W	M	W	M	W	M	W	M	W	M	W	M	W	M	W		
3. Mobile Van Announcements																		
4. Film Shows																		
5. Puppet Shows																		

Comments

# LILONGWE ADD

TAs

## CREDIT BREAKDOWN

For \_\_\_\_\_ 19\_\_\_\_\_

Project \_\_\_\_\_

EPA/Unit \_\_\_\_\_

Name \_\_\_\_\_

Section \_\_\_\_\_

Rank \_\_\_\_\_

No. Clubs \_\_\_\_\_

Seasonal credit \_\_\_\_\_

Medium Term \_\_\_\_\_

Number Men \_\_\_\_\_

Number men \_\_\_\_\_

No. Men \_\_\_\_\_

Number Women \_\_\_\_\_

Number women \_\_\_\_\_

No. women \_\_\_\_\_

Total Members \_\_\_\_\_

Total borrowers \_\_\_\_\_

Total borrowers \_\_\_\_\_

	Total this month			Total to date		
	Men	Women	Total	Men	Women	Total
<u>Seasonal Credit:</u>						
Borrowers						
Hybrid maize						
Composite maize						
Other maize						
Groundnut seed						
Tobacco (Fertilizer)						
Fertilizer only						
Wheat						
Other _____						
_____						
_____						
Total Loan						
Amount Paid						
and Repayment						
_____						
<u>Credit Steers:</u>						
Borrowers						
<u>Medium Term Credit</u>						
(specify items)						
_____						
_____						
_____						
Total Loan						
Amount Paid						
Balance Outstanding						

AN EVALUATION OF WOMEN'S PROGRAMMES IN LADD  
HOW LADD SECTIONS AND PROJECTS CAN  
INCORPORATE MORE WOMEN FARMERS IN THEIR PROGRAMMES

DR. A. SPRING

MR. C. SMITH

MISS F. KAYUNI

WOMEN IN AGRICULTURAL DEVELOPMENT PROJECT  
CHITEDZE AGRICULTURAL RESEARCH STATION

P.O. BOX 158, LILONGWE

REVISED VERSION

April, 1983

Annex 2-2

# LILONGWE ADD

## Extension Activities' Report Form A

TAs

Project \_\_\_\_\_ Period \_\_\_\_\_ 19 \_\_\_\_\_

Name \_\_\_\_\_

EPA/Unit \_\_\_\_\_

Section \_\_\_\_\_

Rank \_\_\_\_\_

	Total this month		Total to - date	
	Men	Women	Men	Women
1. <u>Attendance Block Demonstrations</u> topics _____				
2. <u>Attendance Club Visits</u> topics _____				
3. <u>Individual Visits</u> _____				
4. <u>Farmer Training DTC/Mobile</u> <u>Attendance - Agriculture</u> topics _____				
5. <u>Attendance - Home Economics</u> topics _____				
6. <u>Meetings</u> topics _____				
7. <u>Village Committees</u> topics _____				
8. <u>Section Committees</u> topics _____				
9. <u>Visit to schools</u> topics _____				

Farmer Training	Total This month	Total to date	
1. No. DTC/Mobile TCs _____			
No. Day Courses _____			
2. Mobile Van Announcements _____			
Villages Covered _____			
3. Handouts _____			Subjects _____
			_____
			_____
			_____
4. Film Shows			_____
			_____
			_____
5. Puppet Shows			_____
			_____
			_____

## Introduction and Methodology

Management section heads and Project Officers were interviewed between December 1982 and February 1983 by the team from the Women in Agricultural Development Project. WIADP also reviewed planning documents and collected information on club membership, seasonal and medium term credit and stallfeeder and dairy farmers by preparing a form which was completed at EPA/Unit level. The purpose was to gather information and make suggestions concerning Women's Programmes and the incorporation of women farmers into the ADD's programmes as part of the evaluation of Women's Programmes for the Department of Agricultural Development, Ministry of Agriculture. The aim is to formulate objectives, strategies, and monitoring and evaluating techniques for including women farmers in the ADDs programmes and RDP services.

Based on this information, WIADP prepared a report detailing the activities of each Section and Project and offering suggestions for increasing the participation of women farmers in their programmes. On March 2, at the Programme Manager's request, WIADP held an all day seminar to present the report. Each suggestion was examined and either approved or rejected. Minutes were taken and during a followup meeting, each suggestion was again reviewed and approved. The following paper consists of the agreed upon suggestions which each Section or Project will follow.

In addition, Extension Activities Reporting Forms (for Monthly, Quarterly and Annual Reports) were identified as requiring changes so they could collect the information on women's and men's participation in extension activities. This way, the contacts by extension workers and the inclusion of women as well as men in Project Services could be monitored. A committee chaired by WIADP designed two sets of forms and the LADD officers approved the forms with minor modifications. These formats are appended to this report. Extension Activities Report Form A will be used by TAs while Form B will be used by DOs, Project Officers and Management. Data on attendance at block demonstrations, club visits, farmer training meetings, committees at all levels, as well as individual and school visits will note the number of men and women. A credit breakdown form will report on clubs membership, seasonal credit by crop, medium term credit, stallfeeders, amounts paid, and balance outstanding by sex. The formats will be utilized by all Projects thereby making extension information comparable among EPAs and Projects.

## LADD - Management Unit Work Plan and Internal Budget

Different styles of writing Annual Work Plans and Internal Budgets are used by the different sections. Women's Programmes Section work Plan was included in the 1982/83 work plan. Although "strategies and operational objectives" are listed, the activity calendar does not reflect these objectives. The format used does not detail strategies (plan of action). Of the other sections, only the Training Section mentions women's participation noting that there should be at least 30% women in agricultural courses. The other sections do not specify to whom the operational objectives will be relayed.

Few priorities or strategies are delineated in the Plans. Most comments focus on "encouraging" farmers rather than giving specific mechanisms for reaching farmers or providing incentives. In response to action required the mechanisms are simply individual visits and meetings, "training", "demonstrations", "field days and publicity." To whom the contacts, meetings and demonstrations are to be, the content and the clients to be trained, and the types of publicity are not specified.

### Suggestions

1. A new format for annual work plans is suggested by WIADP. This is being looked at by management.
2. The strategies or action required should be specific (i.e., not simply to say encourage or have meetings) and should be related to particular times of the year and targets.
3. Where appropriate, targets for women, as well as men should be set.
4. Strategies as to how to include women in the sections work plans/activities should be devised.

### LRDP MONTHLY, QUARTERLY AND PROGRESS REPORTS

1. A standardized activity report for extension activities was redesigned by LADD Project Officers and section heads and WIADP to give attendance figures for all extension activities in terms of men and women participating.
2. Livestock: numbers of men and women participating in stall feeding, dairy, poultry should be listed.
3. Training: give numbers of women farmers and staff in agriculture and home economics classes in day and residential courses should be listed.
4. Credit: number of men and women taking medium and seasonal credit should be listed.
5. Clubs: number of men and women members should be listed.
5. Some quarterly reports have charts of Crop, Subject, Number of individual farmers contacted on subject, farmers clubs, etc. Number of farmers contacted and club membership should note number of men and women.

The WP section is understaffed and the number of women in all extension positions is small. (Table 1). There are too few FHAs and there is a staffing void at Project level.

Management would like to convert some STA posts to Senior FHAs. Presently, there is no structure for FHAs. In over 12 years of having FHAs, there have been no promotions. SFHAs will have to have scooter transport.

Some of the ADD's aims according to management are to improve the quality and production of tobacco, maize, and groundnuts. Livestock management needs improvement. Nutrition standards need to be improved as does the firewood and pole situation, water supply and health facilities. All of these aspects affect women as well as men. Sections such as Animal Husbandry should ask staff to identify women as well as men farmers for programmes. More women should participate in credit and management has impressed this on male and female staff. Also women need to participate more in the conservation programmes of Land Husbandry Section.

The new extension approach should emphasize that women participate. If there are few women, the extension staff should ask the local leaders why they do not send more women.

#### Suggestions

1. FHAs and HCWs should not be combined in courses; FHAs and FAs can take courses together.
2. The WP section should continue to take an active part in defining WP and liaising with the other sections.
3. Supervision of FHAs are a part of the DOs job as well as the women in Development Officer. The WDO should act as SMS in the ADD.
4. The career structure for female staff is heartily supported. Project proposals should have PO (ADD), TO (RDP), and SFHA positions written in.

#### WOMEN'S PROGRAMME SECTION

The section supervises the 43 FHAs, DAs and FAs in LADD, plans refresher courses for them, advises the project officers to buy new equipment for FHAs when needed, and compiles monthly and quarterly reports. FHAs have 1 to 4 groups each. A few generate income usually on a small scale through agriculture, poultry, sewing/ knitting or making scohes. Although the section liaises with other sections concerning WP, no priorities have yet been set in terms of emphasis.

A refresher course for FHAs is planned for March. One week will be spent on general discussions on the new extension approach and one week will be spent on general extension. A seminar in November with FHAs and HCWs focused on general problems in the field and income generating activities (IGAs).

The section asked the Project Officers to give them data on FHAs, groups, clubs and credit but have not received them. WDO monthly and quarterly reports only give attendance at home economics courses.

#### Suggestions: General

1. The section needs to define its priorities and set its programmes which should involve working with other sections to create strategies and to monitor/evaluate women's involvement in programmes. Just as the Evaluation Section can be involved in the other sections' activities, so WP should act to help and monitor.
2. Figures on women's and men's participation in groups, clubs, and credit (seasonal, medium term, stallfeeders, dairy animals and poultry) should be obtained.
3. WDO should know the exact number of groups and group members for FHAs and HCWs in the ADD by project.
4. Women should be encouraged to generate income through agricultural production. Women's participation in rural industries should also be considered. The income generating activity that women participate in should not be on too small a scale so that women lose interest or the amount of income generated is insignificant e.g., a large number of women cultivating a small amount of maize to generate income.
5. Appropriate technologies for agricultural, domestic and food processing work for women should be considered.
6. Refresher courses should include more relevant home economics subjects (family resources management, nutrition and health, appropriate technology, etc) as well as agricultural and financial/management (e.g., credit) subjects.
7. WD Officers need to find out the problems of rural women and project services to women. They should design a study/survey on the needs of rural women in conjunction with the Evaluation Section. Women's Programmes Officers should participate in Farming Systems/ Adaptive research surveys.
8. When the section collects data on women, they should always obtain figures for both men and women and calculate the number of women as a percentage of the whole (e.g. Table 2-3).
9. Tables 2 and 3 give an example of women's participation in DTC agriculture and home economics courses. Participation of women in agricultural courses should be assessed by group, unit or EPA to find out why participation is low in some areas.

#### Suggestions: Reporting Formats

1. Reporting formats for FHAs will be designed at the national level.
2. Monthly/quarterly reports of the Section should specify the number of male and female farmers and staff participating in the section's activities. Liasons with other sections and incorporation of women farmers in various programmes should be included.

## TRAINING SECTION.

The section has taken the lead among the ADDs as it has targeted at least 30% of places in agricultural courses for women at RTCs. Female staff are now being given training places at refresher courses along with male staff in courses on major crops, stall feeding, animal health and research, horticulture and minor crops.

Most of the teaching at DTCs will concentrate on demonstrations that follow the agricultural calendar. Home economics will be done in the dry season. The idea is to give women more agriculture by easing it into home economics courses. The Syllabus for Farmer Training is still used however, but it is not considered optimum by the Training Officer.

Some follow-up is conducted to ascertain effectiveness of the courses. Usually, principals at RTCs interview farmers. There is no good follow-up at DTCs according to the officer. Women's Programmes still comes under Training Section. Unlike other ADDs the officer is called a Development Officer not Assistant Women's Programmes Officer.

### Suggestions: General

1. Female staff should continue to participate in all agricultural courses which are relevant to extension staff without exception.
2. Revise Syllabus for Farmer Training to include more relevant subjects in home economics courses e.g., nutrition (more than 3 food groups), family resources management, appropriate technology for food processing and preservation, etc. FHA refresher courses should also have more of these topics.
3. In the follow-up programme at RTCs, principals should interview women farmers as well as men.
4. In areas where the targeted 30% female participants is not met, field staff should intensify recruiting efforts through local leaders, clubs, etc and fact find to identify the problem.
5. Training schedules at DTCs should offer more relevant home economics courses as well as more agricultural subjects for women.

### Suggestions: Reporting Formats

1. Forms for courses held at DTCs should have separate columns for women's agriculture and home economics courses.
2. Monthly and quarterly reports should give number of women in agriculture and home economics courses separately, or if topics are combined this should be noted.

## CREDIT SECTION

Married women can obtain credit and can be members of clubs on their own or with their husbands. The number of women in clubs

and taking credit is untabulated by the section. It was noted that most women repay their loans while defaulters are more likely to be men. Credit worthiness for medium term credit is based solely on the field's staff evaluation unlike seasonal credit which is supposed to be determined by club leaders.

#### Suggestions

1. The number of women and men in clubs and taking seasonal and medium term credit should be tabulated by EPA and Project. (see tables below.)
2. Women should be informed about benefits of club membership, credit procedures and packages, and implements available. Field staff need to offer credit services to new borrowers rather than to the same farmers year after year. New strategies for involving women in both seasonal and medium credit should be explored.
3. 17.5kg package of groundnut to plant  $\frac{1}{2}$  ha. seed would appeal to women. A smaller package of groundnut seed is suggested.
4. Female staff need to attend credit courses. FAs and FHAs should be included in credit talks to extension staff.
5. FHA refresher courses should continue to invite the Credit Officer to review credit procedures and formats.
6. Farmers' courses on managing clubs and finances should be given to women's groups organized by FHAs. There should be leadership courses for women.

#### CROPS SECTION

The section runs courses for FAs on major and minor crops. The Women in Development Officer has requested that FHAs be included in some of these courses. The section is in direct contact (meetings and demonstrations with farmers, including those growing burley tobacco.

#### Suggestions: General

1. FHAs should continue to attend courses on crops.
2. Wives of tobacco farmers should participate in meetings and demonstrations held by the section.
3. Wives of farmers growing other crops should also be involved in meetings and demonstrations held by the section.

#### Suggestions: Reporting Formats

Reporting formats should specify the number of male and female farmers and staff participating in the section's activities.

TABLE 2

## PARTICIPATION IN AGRICULTURE COURSES IN LRDP DTCs JUNE-DECEMBER 1982

GROUP	MEN	WOMEN	% WOMEN
1	1107	670	37.7%
2	1431	60	4.0%
3	1470	470	24.2%
4	578	83*	13.8%
5	321	1085*	77.2%
6	1693	68	3.9%
TOTAL	6975	2436	23.9%

\*Figures for home economics courses that include some agriculture.

TABLE 3

## PARTICIPATION BY WOMEN IN AGRICULTURE AND HOME ECONOMICS COURSES IN LRDP'S DTCs JUNE-DECEMBER 1982

GROUP	AGRICULTURE	HOME ECONOMICS	% AGRICULTURE
1	670	3696	13.3%
2	60	3068	1.9%
3	470	3197	13.0%
4	83	2154	3.8%
5	1085	2081	34.3%
6	68	3694	1.8%
TOTAL	2436	17,890	11.9%

TABLE 4

## NUMBER OF COURSES OFFERED IN AGRICULTURE AND HOME ECONOMICS, LRDP, JUNE-DECEMBER 1982 FOR BOTH SEXES.

SUBJECT	NUMBER	PERCENTAGES
Home Economics	733	63%
Agriculture	435	37%

## LAND HUSBANDRY SECTION

This section conserves natural resources through surveys, farm planning and appropriate conservation methods which contribute toward efficient use of the soils. Male and female farmers attend courses and lectures on land husbandry, although women do not comprise 30% of the classes as anticipated. The section's goal of realigning contours on  $\frac{1}{2}$  of the area within each EPA will require extensive cooperation from male and female farmers as volunteer labour. Women who join farmers clubs will benefit from the new block system by lectures and assistance from land husbandry field assistants.

### Suggestions

1. FHAs should attend lectures on Land Husbandry at the same time as FAs.
2. DOs should instruct the FAs to recruit women to agricultural courses which feature land husbandry lectures. Extension staff should strive to have at least 30% women in the class of farmers.
3. Women farmers should be involved in programmes for conservation catchment to realign ridges in a particular river watershed. Without the full participation by women in the area, the majority of the planter ridges will not be completed.
4. When FAs are organizing farmers into groups for block meetings, women should be included at all stages. Women should be present for special lectures, conservation programmes and peg marker ridges for individual farmers.
5. The WDO should invite Land Husbandry specialists to lecture to refresher courses for FHAs.

## HORTICULTURE MARKETING OFFICER (Under Marketing Section)

This officer assists in marketing perishable commodities within LADD. Women are active in assisting in the production of fruit and vegetables. Despite the emphasis that FHAs should be focusing on vegetable production, no regular programmes have been devised with the Women's Programmes.

### Suggestions

1. Special efforts should be made to discern the reasons for low participation by women in the meetings and committees which decide marketing strategies for horticultural clubs. Techniques must be devised to overcome these obstacles and include the women farmers more in decision making.
2. Women's Programmes should contact the officer for assistance to FHAs who are conducting classes in vegetable production.
3. Women's groups already in existence can be organized to produce vegetables as an income generating activity. The officer could assist, especially in the area of marketing the perishable produce.

## EVALUATION SECTION

Some of the NSSA data are yet to be analyzed. In addition to the Annual Survey of Agriculture Surveys, the section is doing a variety of surveys. The ones noted have relevance to the topic considered here:

- Appraisal of stall feeding and dairying
- Socio-economics constraints on production of fruits and vegetables in Ntcheu
- Credit systems in LADD
- Livestock Management Survey - Ntcheu
- Crop Storage
- Evaluation of Daconil.

Other activities of section are refresher courses for enumerators, preparing progress reports on the Projects and writing quarterly reports.

### Suggestions: General

1. An Evaluation Section should disaggregate the NSSA data into male and female household heads. Models have been provided by WIADP's disaggregation of the Household Composition, Yield and Garden Surveys of LRDP.
2. Analysis of the ASA should be by sex of household head.
3. The surveys that the section is undertaking should:
  - (a) have samples of both men and women farmers and men and women household heads;
  - (b) have questions that ask about men's and women's participation;
  - (c) be analyzed by sex of household head and sex of farmer.
4. Male enumerators have been collecting data from women as well as men. During the refresher courses discuss techniques, problems and successes of collecting information from women. This information might be useful for the male extension staff working with women.

### Suggestions: Reporting Formats

1. Project Quarterly and Progress reports should disaggregate data on participating farmers by men and women.
2. Activities that involve women should be reported and women's involvement in the various sections' programmes should be noted.

## RURAL INDUSTRIES

Unfortunately the section head was unavailable during the interview days. However, discussion with visitors from Appropriate Technology International revealed that the section runs a project on tile making in which there is one very active woman.

## Suggestions

1. The identification of an industry which more women might participate in could lead to further funding.
2. Explore the possibilities of developing women's participation in tile making on a much larger scale.

## ANIMAL HUSBANDRY SECTION

The section has programmes in stall-feeding (both credit and own-producers), dairy, poultry management and training on general animal husbandry. Presently, there are 99 female farmers (about 13%) involved in stall-feeding. Of the 257 dairy farmers in LADD, 3 are women farmers. None of the women farmers is involved in dairy farmers' clubs.

The section offers general animal husbandry courses at RTCs to both women and men farmers. Concerning poultry, male farmers obtain layers from the veterinary department on loan. Their wives help in cleaning the chicken house, feeding and egg collection. Poultry management courses are arranged for male farmers and their wives separately at RTC. In case of staff training, special animal husbandry courses are held at RTCs for male TAs but not for FHAs or female TAs. WP section has now started asking the section to teach animal husbandry to FHAs and female TAs at their refresher courses. The section plans to hold mixed courses for FHAs and female and male TAs.

## Suggestions: General

1. Increase the number of women farmers doing stall-feeding by:
  - (a) Male and female extension workers contacting female farmers whom they think can stall-feed, enlightening them on the advantages of stall-feeding and recommending them to the credit section staff.
  - (b) tours of farmers to women doing stall-feeding. (This would enable women farmers who are not stall-feeding to see what other women are doing).
  - (c) holding training courses which teach women farmers about stall-feeding. (The FHAs and TAs also should be taught more about stall-feeding so that they can be able to teach women).
2. Teach women dairy farmers and wives of male dairy farmers about dairy management. Identify more women farmers for dairy animals loans.
3. Improve coordination with WP section because there is a need for them to know what is going on in stall-feeding, dairy, poultry and animal husbandry courses in relation to women.

## Suggestions: Reporting Formats

1. Monthly, quarterly and annual reports should give figures for participating farmers in terms of male and female farmers and their totals. This is true for all activities: dairy, stall-feeding, ox-training, milk deliveries.

2. Always report the numbers and percentages of both men and women stall-feeders and dairy farmers, rather than one sex or the totals.

#### AUDIO VISUAL AIDS SUB SECTION

The section shows films and puppet shows using mobile units, conducts farmers' interviews, designs posters, produces the staff magazine, and distributes publications. The section takes photographs of women in home economics displays, in the gardens, stall-feeding, breast-feeding, clearing wells, using mud stoves, etc. In case of farm operations most of the time women are shown with their husbands. There are more photographs of women taken while doing home economics activities than agricultural activities. Most interviews with women are on home economics subjects. The section considers that FHH farmers are better to interview than women farmers whose husbands are present. The latter just say "Interview my husband; he knows better".

The WP section has contacted the Visual Aids Section on the following:

- (a) photographs of home economics displays
- (b) radio interviews on home economics
- (c) translation of information on human diseases from English to Chichewa.

The Visual Aids Section encourages women to join home craft classes using the yellow van (mobile unit). At puppet shows, husbands are asked to allow their wives to go for home economics courses.

#### Suggestions: General

1. Increase the number of photographs of women farmers taken while doing agricultural activities on their own and with their husbands.
2. Increase the number of women who are put on agricultural posters.
3. Coordination with Women's Programmes Section should not only be in relation to home economics activities but also concern agricultural activities.
4. Visual Aids yellow vans and puppet shows should encourage women to join agricultural classes as well as home economics classes.
5. FHAs and female TAs in conjunction with male TAs should help to assist women farmers on agricultural interviews so that they will feel confident when the staff interviews them.

#### Suggestions: Reporting Formats: The Extension Aids Activities Report

1. Recorded interviews and programmes made for mobile units section should indicate type of the interview/programmes (agricultural or home economics) and columns should be made for attendance of male farmers, female farmers and mixed groups.

2. Cinema shows and puppet shows should have columns for attendance of men, women and children.
3. The number of handouts distributed, should indicate type of handouts (agricultural or home economics) and number of male and female farmers who receive them.
4. The number of posters for home economics and agriculture should be noted.
5. Indicate whether photographs are of agricultural or home economics topics. Form should have columns for men, women, mixed groups and children.

#### RESEARCH AND TRIALS SECTION

Since 1980, there have been only 2 women farmers involved in the trials. Women whose husbands are in trials are indirectly involved in the trials because they help in farm operations. The section holds training courses for staff. Since 1980, the section has held 3 one-week courses each on major crops and minor crops for 28 male TAs. No courses has been held for FHAs and female TAs.

#### Suggestions: General

1. Field staff should ensure that female farmers participate in the running of on-farm trials. Wives of male trial farmers should also be taught about the trial.
2. FHAs and female TAs should also be recruited for crops courses.
3. There is a need to look at minor crops which are very much utilized in the people's diets and are also a good source of income. Women are often responsible for these crops and should be trial cooperator farmers.

#### MARKETING SECTION

The section offers maize shelling services to farmers as well as planning input requirements for farmers from ADMARC and monitoring input distribution. In terms of training courses, the section is periodically asked to teach about ADMARC marketing procedures to farmers who have come for general agricultural courses at RTCs. Few women farmers are involved in these courses. In terms of staff training, tobacco grading courses are carried out only for male TAs. The section gives the Training Section the latest marketing information which is taught to extension workers and farmers. It gives the Evaluation Section all the monitored data on marketing, monthly and quarterly reports. Input prices are given to the Credit Section for them to prepare credit packages and decide type of inputs to be made available to farmers.

#### Suggestions: General

1. Current marketing information on prices, grading, input type, quality, etc. should be taught to both male and female extension workers.

2. Women attending agricultural and home economics courses at DTCs, RTCs and in group/clubs need to learn about the input prices and ADMARC marketing procedures.

#### LAND ALLOCATION SECTION

##### Suggestions

1. Keep records of the number of men and women attending land issues meetings. These meetings could be used to meet women to impart agricultural advice.
2. In the block system, the current lists of people could be useful to know who some of the women are in the villages and to ask the family heads to call women for meetings.

#### ALL RURAL DEVELOPMENT PROJECTS

##### Suggestions

1. When project proposals are prepared for funding, positions for female staff should be written in. For example:

RDP level	(TO)	Assistant Women's Programmes Officer
RDP level	(STA)	Senior FHA
EPA level	(TA)	FHA
2. Women in clubs and groups should participate in tree planting and woodlots.
3. Projects should do fact-finding to determine whether or not women household heads participate in project services e.g., training, credit, afforestation, etc.
4. Male extension staff should be encouraged to work with women farmers and to give all project services to women as well as men. The field staff should be aware of the policy to regard female heads as managers and therefore, eligible for all services normally extended to male heads.
5. Strategies should be devised to increase the number of women and men attending meetings and demonstrations under the block system. The local leaders should be told that women should attend block meetings and demonstrations.
6. Field days for staff and local leaders should include FHAs and female leaders.
7. A major effort should be made to accomplish the policy of having women farmers comprise at least 1/3 of students in agricultural training courses.

## DEDZA RDP

Female Headed Households 39%      Average Land Holding Size .99ha.

Dedza is a non-funded project at present. It has no female staff but the District Council has some HCWS. EPAs 7a, 7b and 8 are similar to each other with maize, fruits, vegetables and irish potatoes, etc., being grown. EPA 5, 6 has similar weather to Lilongwe Northeast and Thiwi-Lifidzi where maize, groundnuts, tobacco, beans, etc. are grown. There is a campaign to get farmers to grow groundnuts in pure stand instead of the present way of intercropping. Dedza used to be a large producer of stalled steers; now there are only 43 steers in stall.

### Suggestions

1. One half acre (.2ha.) groundnut packages would be more appropriate for the small holding size and might aid in encouraging pure stand planting.
2. Field staff should recruit women as well as men for the stall-feeding programme when project is funded.
3. Water projects conducted by the Department of Land, Valuation and Water should have women on supervisory and maintenance committees, especially because there are fewer men than women in the area.
4. Data on the participation of women in farmers clubs and getting credit is given in Table 7. The percentages are encouraging (especially EPA 7a - 36% and 7b - 29%). However, fact-finding is necessary to find out why the percentages in the other EPAs are lower.
5. Once the project is funded, special efforts to reach the extremely high proportion of FHH should be made. These households need to participate in training and credit programmes if production in the area is to increase and if poorer households are to be included in Project services.

## LILONGWE NORTHEAST

Female Headed Households 20%,      Average Holding Size 1.16ha.

The Project hopes that farmers will grow local maize well and then move to MH-12 and composites. The dark western virginia tobacco needs improvement in leaf quality. Women are involved in groundnut production and they need direction on timely operations

and spacing. Currently, groundnut operations are left for last. Women are automatically members of dairy clubs if their husbands own dairy cows. They attend training (separately from husbands) on the subject. However, recruitment of dairy operations focuses on men.

#### Suggestions

1. If the optimal mix of crops is something like maize, groundnuts and tobacco, and the average holding size is 1.16ha., then .4 ha. in groundnuts is too large a package. A .2ha. groundnut package is suggested. This should help women who may be afraid to take larger packages.
2. Dairy: Women spending most time looking after the animals. Therefore, they should be encouraged to do dairying and field staff should recruit women. Also women who have been doing dairy enterprises with their husbands should be allowed to continue if the husband dies or she is divorced.
3. Women should be taught improved cultural practices on groundnuts (see suggestion. 1 above).
4. Table 8 shows the percentage of women participating in clubs and getting credit is low (especially EPA 21 and 22). Fact-finding should be done to find out why so few women are participating. Strategies for increasing the number of women in clubs and getting credit need to be worked out.

#### THIWI-LIFIDZI PROJECT

Female Headed Households 33%; Average Holding Size 1.36 ha.

Crops grown are maize, groundnuts, tobacco, beans, cassava, soyabeans, millet, sweet and irish potatoes, etc. There are both stall-feeding and dairying operations. All 4 EPAs have FHAs and there are 2 FHAs at the Dedza RTC. There are 45 FAs, one of whom is a woman. Women tend to be more involved in groundnuts than men; people tend to intercrop rather than monocrop groundnuts. Both sexes grow soyabeans but there was not enough seed and inoculant this year.

#### Suggestions

1. Women should be recruited for stall-feeding and dairying enterprises.
2. Numbers of women and men in clubs and getting credit need to be obtained.
3. One out of every three households are headed by women. The Project should do some fact-finding to ascertain if these households are participating in Project services, e.g., training, credit, afforestation, and husbandry. Table 7 suggests that the number of women in clubs and getting credit is particularly low (only 10% in the Project and only 4% in EPA1) given the high percentage of female heads.

#### NTCHEU RDP

Average Holding size 1.08 ha., Female Headed Household 38%

The 6 EPAs are quite different ecologically: EPA 1 has maize, beans and vegetables; EPA 2 has maize, groundnuts and beans; EPA 4 has maize and tobacco; EPA 5 has potatoes, wheat and fruit trees; and EPAs 7 and 8 have maize, cotton, tobacco, sunflower, groundnuts, pigeon peas and cassava. There is a small own producer stall-feeding programme.

Project staff consider that Ntcheu is quite different from Lilongwe because the men are away. Women in Ntcheu take cash crops seriously and grow maize, cotton, tobacco, etc. Many are in clubs and some club chairmen are women. However, credit funds are not adequate. Ntcheu received the lowest amount of LADD's Projects in 1982/83.

In the rural water supply project women dug the trenches. Department of Lands, Valuation and Water are giving women training in repair of boreholes. Also there is the plan that women will have vegetable gardens at the boreholes.

Groundnut production has decreased and there is a problem of obtaining fuelwood.

### Suggestions

1. Table 8 gives the number of women and men in clubs and getting credit. The figures are encouraging and a good start has been made for getting women involved in Project services. However, more women can be encouraged to participate.
2. Because of the small holding size, groundnut packages for .2ha. should be considered.
3. The amount of funds for seasonal credit should be increased if possible.
4. Specific instructions on vegetable production is required for women, so they can make use of run-off water from the new water supply system.
5. Strategies for getting women interested in growing fruit trees should be devised by the horticulturalist and Project staff.
6. Involvement in wheat growing by women should be encouraged.
7. The Farming Systems Survey held March 14-18 should focus on women as well as men farmers and take the high percentage of female household heads into account.

### LILONGWE RURAL DEVELOPMENT PROJECT

Female Headed Households 20%; Average Land Holding 1.74 ha.

Women participate in all types of farm activities in LRDP although in some areas their numbers are small. Women do farm operations on all crops grown. There are some women growing tobacco (some are those whose husbands have died and they continue the enterprise); others grow maize on commercial basis one woman in Unit 33 has 10 acres of MH-12). 12-17% of stall-feeders are women and one woman in Unit 24 does dairying. There are even a few women using ox-ploughs in the Malingunde area. In terms of crops, work on groundnuts, groundbeans and millet is mostly done by women.

Single and married women do belong to clubs and obtain credit. Some farmers clubs have women conducting separate meetings for their own agricultural activities. The number/percentage of women in clubs and getting credit is not known. Similarly, women participate committees, but not in large numbers. According to Project management, the Project's intention is to have 1/3 women of the farmers within training classes, although the actual fraction is much less. The Project has faced difficulties with implementing the Ministry policy of extending agriculture through the classes of FHAs, since they continue to concentrate on home economics courses.

The extension seminar at Nsaru RTC (February 2, 1983) considered problems encountered with the block system. Problems with low attendance, scarcity of inputs, improper work plans by extension workers, attendance by mostly club members, faulty scheduling, etc. were noted. Table 9 gives the recent attendance figures for meetings and demonstrations. In certain areas the number attending is quite low especially since the block system potentially should reach a wider audience than previous methods.

#### Suggestions - General

1. There is a higher demand for stall-feeders than there are steers. However, the percentage of women doing stall-feeding needs to be increased. Local leaders can be consulted in order to identify women for the stall-feeding programmes.
2. More women should be encouraged to grow maize commercially. If given the support, they can compete favourably.
3. Women who grow tobacco need training in curing and grading.
4. The number of women in clubs and getting seasonal credit should be tabulated and monitored. With women participating in the entire range of farming enterprises, some of the medium term loans for farm implements should go to women. This number also should be tabulated.
5. Participation by women in committees at the village, section, unit and group levels should be encouraged.
6. Figures for all groups are given in the following tables. The tables are disaggregated by units so that it is possible to pinpoint areas where women's participation in clubs and credit programmes are low. Groups falling below 10% are groups 3 and 5. Units falling below 10% are Units 2, 6, 12, 14, 15, 17, 22, 26, 27, 32, 40, 41, 45. The staff should do fact-finding to determine why these areas are so low.

TABLE 5

ATTENDANCE AT BLOCK SYSTEM MEETINGS AND DEMONSTRATION BY SEX, LRDP  
SEPTEMBER - DECEMBER 1982\*

GROUP	MEETINGS			DEMONSTRATIONS		
	MEN	WOMEN	% WOMEN	MEN	WOMEN	% WOMEN
1	4629	2208	32%	3391	938	22%
2	13305	1995	13%	11631	1980	15%
3	9099	1135	11%	5858	514	8%
4**						
5**						
6	16229	7318	31%	7137	3572	33%
TOTAL	43262	12652	23%	28017	7004	20%

\*Figures from the seminar held at Nsaru RTC, 2 February, 1983

\*\*Figures from groups 4 and 5 were not disaggregated by sex.

TABLE 6

CREDIT, CLUB AND GROUP MEMBERSHIP BY SEX BY PROJECT IN LADD 1982/1983

PROJECT	LRDP	LNE	T/L	DEDZA	NTCHEU	Total LADD
<u>Clubs</u>						
Total Number	1465	174	88	67	137	1931
Total Members	43645	8500	5625	3014	4728	65512
Number Men	37870	5866	4838	2377	3581	54532
Number Women	5442	943	787	637	1147	8956
% Women	12%	11%	14%	21%	24%	14%
<u>Credit - Seasonal</u>						
Number Men	34689	7520	3896	2245	1950	50300
Number Women	5234	745	430	542	622	7573
% Women	13%	9%	10%	19%	24%	13%
<u>- Medium term</u>						
Number Men	251	151	72	46	58	578
Number Women	1	-	1	1	3	6
% Women	0.4%	0%	1%	2%	5%	1%
<u>Stall-feeders</u>						
Number Men	642	29	22	40	13	746
Number Women	130	-	1	2	-	133
% Women	17%	0%	4%	5%	0%	15%
<u>Dairy</u>						
Number Men	85	201	26	17	3	332
Number Women	-	-	1	1	-	2
% Women	0%	0%	4%	6%	0%	0.5%
<u>Women's Groups</u>						
Number FHAs	27	3	4	Nil	4	38
Number Groups	62	10	5	Nil	7	84
Total Members				Nil		
Number HCWs	19	11	3	13	8	54
Number Groups	53	42	3	46	28	172
Total Members						

TABLE 7

## CREDIT, CLUB AND GROUP MEMBERSHIP BY SEX, DEDZA RDP, 1982/82

EPA	5	6	7a	7b	8	Total Project
<u>Clubs</u>						
Total Number	22	16	15	4	10	67
Total members	1066	865	607	147	329	3014
Number Men	874	748	386	104	265	2377
Number Women	192	117	221	43	64	537
% Women	18%	14%	36%	29%	19%	21%
<u>Credit-Seasonal</u>						
Number Men	864	748	359	83	191	2245
Number Women	192	117	152	31	50	542
% Women	18%	14%	30%	27%	21%	19%
<u>Medium Term</u>						
Number Men	16	25	1	Nil	4	46
Number Women	1	-	-	Nil	-	1
% Women	6%	0%	0%	Nil	0%	2%
<u>Stall-feeders</u>						
Number Men	8	32	Nil	Nil	Nil	40
Number Women	-	2	Nil	Nil	Nil	2
% Women	0%	6%	Nil	Nil	Nil	5%
<u>Dairy</u>						
Number Men	17	Nil	Nil	Nil	Nil	17
Number Women	1	Nil	Nil	Nil	Nil	1
% Women	6%	Nil	Nil	Nil	Nil	6%
<u>Women's Groups</u>						
Number FHAs	Nil	Nil	Nil	Nil	Nil	Nil
Number Groups	Nil	Nil	Nil	Nil	Nil	Nil
Total Members	Nil	1	Nil	Nil	Nil	Nil
Number HCW	3	1	2	5	2	13
Number Group	5	5	9	18	9	46
Total Members						

TABLE 8

CREDIT, CLUB AND GROUP MEMBERSHIP BY SEX, LILONGWE NORTHEAST  
LRDP, 1982/83

EPA	18 and 19B	19A	20	21	22	Total Project
<u>Clubs</u>						
Total Number	46	39	33	34	55	174
Total Members	2066	1580	1513	1899	2955	8500
Number Men	1820	1380	1204	1774	2892	5865
Number Women	246	200	309	125	63	943
% Women	12%	13%	20%	7%	2%	11%
<u>Credit - Seasonal</u>						
Number Men	1706	1253	556	1683	2322	7520
Number Women	246	200	111	125	63	745
% Women	13%	14%	17%	7%	3%	9%
<u>- Medium</u>						
Number Men	2	10	5	36	98	151
Number Women	-	-	-	-	-	-
% Women	0%	0%	0%	0%	0%	0%
<u>--Stallfeeders</u>						
Number Men	1	5	Nil	22	Nil	29
Number Women	-	-	Nil	-	Nil	-
% Women	0%	0%	Nil	0%	Nil	0%
<u>- Dairy</u>						
Number Men	10	17	Nil	60	114	201
Number Women	-	-	Nil	-	-	-
% Women	0%	0%	Nil	0%	0%	0%
<u>Women's Groups</u>						
Number-FHAs	1	1	Nil	1	Nil	3
Number Groups	3	3	Nil	4	Nil	10
Total Members						
Number HCWs	1	2	1	4		11
Number Groups	4	9	10	13	3	42
Total Members						

TABLE 9

## CREDIT, CLUB AND GROUP MEMBERSHIP BY SEX, THIWI-LIFIDZI, 1982/83

EPA	1	2	3	4	TOTAL PROJECT
<u>Clubs</u>					
Total Number	15	25	31	17	88
Total Members	1979	1156	1496	994	5625
Number Men	1897	1028	1344	569	4838
Number Women	82*	128	152	425	787
% Women	4%	11%	10%	43%	14%
<u>Credit - Seasonal</u>					
Number Men	1253	567	1293	783	3896
Number Women	96*	80	152	102	430
% Women	7%	12%	12%	12%	10%
<u>- Medium Term</u>					
Number Men	42	12	11	7	72
Number Women	-	-	1	0	1
% Women	0%	0%	8%	0%	1%
<u>Stall feeders</u>					
Number Men	14	Nil	7	1	22
Number Women	-	Nil	1	-	1
% Women	0	Nil	13%	0%	4%
<u>Dairy</u>					
Number Men	13	2	11	Nil	26
Number Women	-	-	1	Nil	1
% Women	0	0%	8%	Nil	4%
<u>Women's Groups</u>					
Number FHAs	1	1	1	1	4
Number Groups	2	1	1	1	5
Total Members					
Number HCWs	Nil	Nil	Nil	3	3
Number Groups	Nil	Nil	Nil	3	3
Total Members	Nil	Nil	Nil		

\*Figures for credit are usually lower than club membership. These figures should be rechecked.

TABLE 10

## CREDIT, CLUB AND GROUP MEMBERSHIP BY SEX NTCHOU RDP, 1982/83

EPA	1	2	4	6	7 + 8	Total Project
<u>Clubs</u>						
Clubs - Number	18	33	28	26	32	137
Total Members	705	1117	1171	875	860	4728
Number Men	545	844	842	707	643	3581
Number women	160	273	329	168	217	1147
% women	23%	24%	28%	19%	25%	24%
<u>Credit: Seasonal</u>						
Number Men	451	398	540	216	345	1950
Number women	123	132	223	39	105	622
% women	27%	33%	29%	15%	23%	24%
: <u>Medium Term</u>						
Number Men	12	30	10	3	3	58
Number women		1	1	—	1	3
% women		3%	9%	0%	25%	5%
: <u>Stallfeeders</u>						
Number Men	Nil	2	11	Nil	Nil	13
Number women	Nil	—	—	Nil	Nil	—
% women	Nil	0%	0%	Nil	Nil	0%
: <u>Dairy</u>						
Number men	Nil	Nil	3	Nil	Nil	3
Number women	Nil	Nil	—	Nil	Nil	—
% women	Nil	Nil	0%	Nil	Nil	0%
<u>WOMEN'S GROUPS</u>						
Number PHAs	1	Nil	1	1	1	4
Number groups	2	Nil	3	—	2	7
Total members		Nil				
Number HCWs	3	1	2	1	2	8
Number groups	8	3	10	3	4	28
Total members						

TABLE 11

## CREDIT, CLUBS AND GROUP MEMBERSHIP BY SEX IN LRDP 1982/83

GROUP	1	2	3	4	5	6	Total Project
<u>Clubs</u>							
Total Number	244	266	35	428	274	218	1465
Total Members	5265	6859	9124	10241	6404	5752	43645
Number Men	4600	5887	8274	8436	5906	4767	37870
Number Women	665	972	840	1805	198	962	5442
% Women	13%	14%	9%	18%	8%	17%	12%
<u>Credit - Seasonal</u>							
Number Men	3824	5840	7995	8061	4701	4268	34689
Number Women	434	972	798	1699	403	928	5234
% Women	10%	14%	9%	17%	8%	18%	13%
<u>- Medium Term</u>							
Number Men	69	38	36	62	37	11	253
Number Women	-	-	-	-	-	1	1
% Women	0%	0%	0%	0%	0%	8%	0.4%
<u>Stall-feeders</u>							
Number Men	121	70	118	154	100	79	642
Number Women	66	3	5	31	22	3	130
% Women	35%	4%	4%	17%	18%	4%	17%
<u>- Dairy</u>							
Number Men	18	5	21	3	2	36	85
Number Women	-	-	1	-	-	-	-
% Women	0%	0%	5%	0%	0%	0%	0%
<u>Women's Groups</u>							
Number FHAs	4	4	6	3	7	3	27
Number Groups	9	10	16	10	9	8	62
Total Members							
Number HCWs	3	3	4	4	2	3	19
Number Groups	6	10	7	13	7	10	53
Total Members							

TABLE 12

## CREDIT, CLUBS AND GROUP MEMBERSHIP BY SEX IN GROUPS 1 AND 6, LRDP 1982/83

PROJECT	1	2	6	8	9	32	Total Groups	24	25	31	34	Total Groups
<u>Clubs</u>												
Total Number	50	34	40	58	43	19	224	54	74	43	47	218
Total Members	1062	662	710	1230	1018	583	5265	1180	1714	1537	1321	5752
Number Men	893	618	674	1103	773	339	4600	1011	1302	1385	1069	4767
Number Women	169	44	36	127	245	44	665	169	389	152	252	962
% Women	16%	7%	5%	10%	24%	8%	13%	14%	23%	10%	19%	17%
<u>Credit-Seasonal</u>												
Number Men	703	618*	640	749	575	539*	3824	776	1302	1385*	805	4268*
Number Women	126	44*	36	78	136	44*	434	189	389	152*	218	928*
% Women	15%	7%	5%	10%	19%	8%	10%	20%	23%	10%	22%	18%
<u>Medium Term</u>												
Number Men	8	11	20	12	9	9	69	1	3	1	6	11
Number Women	-	-	-	-	-	-	-	1	-	-	-	1
% Women	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	8%
<u>Stall-feeders</u>												
Number Men	9	17	21	21	41	12	121	4	51	14	10	79
Number Women	24	4	-	2	33	3	66	1	-	-	2	3
% Women	73%	19%	0%	9%	45%	20%	35%	0%	0%	0%	17%	4%
<u>Dairy</u>												
Number Men	2	8	Nil	2	2	4	18	Nil	Nil	Nil	Nil	36
Number Women	-	-	Nil	-	-	-	-	Nil	Nil	Nil	Nil	-
% Women	0%	0%	Nil	0%	0%	0%	0%	Nil	Nil	Nil	Nil	0%
<u>Women's Groups</u>												
Number FHAs	Nil	1	1	1	1	Nil	4	Nil	1	1	1	3
Number Group	Nil	3	2	1	3	Nil	9	Nil	3	3	2	8
Total Members	-	-	-	-	-	Nil	-	-	-	-	-	-
Number HCWs	1	Nil	Nil	1	Nil	2	3	1	1	1	Nil	3
Number Groups	4	Nil	Nil	2	Nil	4	6	5	3	2	Nil	10
Total Members	Nil	Nil	Nil	-	Nil	-	-	-	-	-	-	-

\*Units 23 and 33, are not included in Group 6.

\*Figures for credit are usually lower than for club membership. These figures should be rechecked.

CREDIT, CLUBS, AND GROUP MEMBERSHIP BY SEX, GROUPS 2 AND 5, LRDP, 1982/83

Unit	GROUP 2						Total Group	GROUP 5						Total Group
	3	4	5	45	46	47		26	27	35	40	41	42	
<b>Clubs</b>														
Total Number	51	54	54	45	44	18	266	49	43	40	69	45	28	274
Total Members	1095	1650	1271	1024	1341	478	6859	969	851	882	2158	896	648	6404
Number Men	988	1406	1073	943	1070	407	5887	944	778	781	1991	863	549	5906
Number Women	107	244	198	81	271	71	972	25	73	101	167	33	99	198
% Women	10%	15%	16%	8%	20%	15%	14%	3%	9%	11%	8%	4%	15%	3%
<b>Credit - Seasonal</b>														
Number Men	988*	1361	1071	943*	1070*	407	5840	724	778*	752	1037	863*	547	4701
Number women	107*	244	198	81*	27*	71	972	20	73*	95	84	33*	98	403
% women	10%	15%	16%	8%	20%	15%	14%	3%	9%	11%	7%	4%	15%	8%
<b>- Medium Term</b>														
Number Men	Nil	8	8	5	8	9	38	4	11	3	15	1	3	37
Number women	Nil	-	-	-	-	-	-	-	-	-	-	-	-	-
% women	Nil	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Stallfeeders</b>														
Number Men	21	Nil	32	5	11	1	70	13	28	13	11	4	31	100
Number Women	3	Nil	-	-	-	-	3	1	9	3	2	-	7	22
% Women	13%	Nil	0%	0%	0%	0%	4%	7%	32%	19%	15%	0%	18%	18%
<b>Dairy</b>														
Number Men	1	Nil	3	Nil	1	Nil	5	Nil	Nil	1	Nil	Nil	1	2
Number Women	-	Nil	-	Nil	-	Nil	-	Nil	Nil	-	Nil	Nil	-	-
% Women	0%	Nil	0%	Nil	0%	Nil	0%	Nil	Nil	0%	Nil	Nil	0%	0%
<b>Women's Groups</b>														
Number FHAs	2	1	Nil	Nil	Nil	1	4	4	Nil	1	Nil	1	1 (DA)	7
Number Groups	3	4	Nil	Nil	Nil	3	10	4	Nil	1	Nil	2	2 (DA)	9
Total Members			Nil	Nil	Nil				Nil		Nil			
Number HCWs	Nil	Nil	1	1	1	Nil	3	Nil	1	Nil	1	Nil		2
Number Groups	Nil	Nil	3	3	4	Nil	10	Nil	4	Nil	3	Nil		7
Total Members	Nil	Nil				Nil		Nil		Nil		Nil		

\* (?)

TABLE 14

## CREDIT, CLUB AND GROUP MEMBERSHIP IN GROUP 3 IN LRDP, 1982/83

UNIT	12	13	14	15	16	17	21	22	Total Group
<u>Clubs</u>									
Total Number	60	65	51	43	37	48	44	35	353
Total Members	1081	1450	1308	1100	881	1042	1271	991	9124
Number Men	1002	1220	1251	1008	791	969	1104	929	8274
Number Women	79	220	57	92	90	73	167	62	840
% Women	7%	15%	4%	8%	10%	7%	13%	6%	9%
<u>Credit - Seasonal</u>									
Number Men	1002*	1242	1251*	892	792	622	1271*	923	7995
Number Women	79	208	57*	62	90	73	167*	62	798
% Women	7%	14%	4%	7%	10%	12%	13%	6%	9%
<u>- Medium</u>									
Number Men	7	3	4	3	5	6	2	6	36
Number Women	-	-	-	-	-	-	-	-	-
% Women	0%	0%	0%	0%	0%	0%	0%	0%	0%
<u>Stallfeeders</u>									
Number Men	29	14	Nil	12	10	15	27	11	118
Number Women	2	-	Nil	-	-	-	1	2	5
% Women	6%	0%	Nil	0%	0%	0%	4%	13%	4%
<u>Dairy</u>									
Number Men	3	11	4	1	1	Nil	1	Nil	21
Number Women	-	1	-	-	-	Nil	-	Nil	1
% Women	6%	8%	0%	0%	0%	Nil	0%	Nil	5%
<u>Women's Groups</u>									
Number FHAs	1	1	1	1	1	Nil	1	Nil	6
Number Groups	4	4	-	3	3	Nil	2	Nil	16
Total Members						Nil		Nil	
Number ECWs	2	1	Nil	Nil	Nil	1	Nil	Nil	4
Number Groups	5	2	Nil	Nil	Nil	Nil	Nil	Nil	7
Total Members			Nil	Nil	Nil		Nil	Nil	

\*(?)

TABLE 15  
CREDIT, CLUB AND GROUP MEMBERSHIP BY SEX IN GROUP 4 LRDP 1982/1983

PROJECT	7	10	11	28	29	30	43	44	Total Groups
<u>Clubs</u>									
Total Number	48	55	49	58	53	35	68	62	428
Total Members	1070	1506	1237	1739	983	734	1411	1561	10241
Number Men	940	1286	999	1298	760	583	1163	1407	8436
Number Women	130	220	238	441	223	151	248	154	1805
% Women	12%	15%	19%	25%	23%	21%	18%	10%	18%
<u>Credit - Seasonal</u>									
Number Men	940*	911	999*	1298*	760*	583*	1163*	1407*	8061
Number Women	130*	114	238*	441*	223*	151*	248*	154*	1699
% Women	12%	11%	19%	25%	23%	21%	18%	10%	17%
<u>Medium Term</u>									
Number Men	15	4	15	-	11	1	14	2	62
Number Women	-	-	-	-	-	-	-	-	-
% Women	0%	0%	0%	-	0%	0%	0%	0%	0%
<u>Stall-feeders</u>									
Number Men	15	17	16	25	23	28	21	9	154
Number Women	6	5	6	2	8	2	2	-	31
% Women	29%	23%	27%	7%	26%	7%	9%	0%	17%
<u>Dairy</u>									
Number Men	1	1	1	Nil	Nil	Nil	Nil	Nil	3
Number Women	-	-	-	Nil	Nil	Nil	Nil	Nil	-
% Women	0%	0%	0%	Nil	Nil	Nil	Nil	Nil	0%
<u>Women's Groups</u>									
Number FHAs	Nil	Nil	Nil	1	1	Nil	Nil	1	3
Number Groups	Nil	Nil	Nil	4	3	Nil	Nil	3	10
Total Members	Nil	Nil	Nil			Nil	Nil		
Number HCWs	1	1	Nil	Nil	1	1	Nil	Nil	4
Number Groups	3	3	Nil	Nil	4	3	Nil	Nil	13
Total Members			Nil	Nil			Nil	Nil	

\*Figures for credit are usually lower than club membership. These figures should be rechecked.

Malawi

Part II

PRIORITIES FOR WOMEN'S PROGRAMMES

DR. ANITA SPRING

WOMEN IN AGRICULTURAL DEVELOPMENT PROJECT

USAID

CHITEDZE AGRICULTURAL RESEARCH STATION

P.O. BOX 158

LILONGWE

Women in Development  
Agency for International Development  
Washington, D.C. 20523  
(202) 335-3502

Date of Acquisition \_\_\_\_\_  
Source \_\_\_\_\_

APRIL 28, 1983

PART II PRIORITIES FOR WOMEN'S PROGRAMMES

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
PREFACE	
I. THE WOMEN'S PROGRAMMES SECTION. . . . .	1
Origin and Policies . . . . .	1
Present Training . . . . .	1
Meetings and Recommendations made by the Section: . . . . .	5
II. SUGGESTIONS FOR WOMEN'S PROGRAMMES. . . . .	9
Name Change . . . . .	9
Career Structure . . . . .	9
Duties and Responsibilities of Women's Programmes	
Staff . . . . .	10
Staff Training . . . . .	12
In-Country . . . . .	12
External . . . . .	13
Reorientating the PHAs and Changing the <u>Syllabus</u>	
<u>for Farmer Training</u> . . . . .	13
Reorientating Other Staff to the Concerns of	
Women's Programmes . . . . .	21
"Fact-Finding"/Collection of Baseline Data . . . . .	21
Women's Groups and Income Generating Activities . . . . .	24
Extension Aids . . . . .	27
Appropriate Technology . . . . .	28
Women and Credit . . . . .	29
Coordination with Other Ministries . . . . .	30
Coordination with Food and Nutrition Section . . . . .	33
III. PRIORITIES FOR WOMEN'S PROGRAMMES IN A 5-YEAR PLAN. . . . .	35
General Structure . . . . .	35
Staff Positions . . . . .	35
Staff Training . . . . .	35
Curriculum Design and Farmer Training . . . . .	36
Coordination . . . . .	36
Research Data and Surveys . . . . .	37
Reporting Formats and Work Plans . . . . .	37
Monitoring the Inclusion of Women in Extension	
Services . . . . .	37
Extension Aids . . . . .	38
Appropriate Technology . . . . .	38
IV. 5-YEAR PLAN FOR WOMEN'S PROGRAMMES. . . . .	39
Operationalizable Work Plan . . . . .	40
Monitoring and Evaluation . . . . .	50

ANNEXES

Department of Agricultural Development, Women's  
Programs Policy. . . . . Annex 1-1

Revised Job Descriptions for Women's Programmes  
Staff. . . . . Annex 2-1

WPO/HQ, WPO, AWPO, SFHA, FHA

Job Descriptions for Community Development/Local  
Government Female Staff - HCW, CDA . . . . . Annex

Revised Reporting Formats for Women's Programmes  
Staff. . . . . Annex 3-1

Problem Solving Methodology. . . . . Annex 4-1

Past Evaluations of Women's Programms. . . . . Annex 5-1

WIADP's Studies of FHAs and Agricultural Training. Annex 6-1

U.S. Department of Agriculture Short Courses . . . Annex 7-1

I THE WOMEN'S PROGRAMMES SECTION

In 1981, the Department of Agricultural Development converted the Home Economics Section under the Farm Home Economist to the Women's Programmes Section under a Women's Programmes Officer (WPO). The post of WPO and AWPO at ADD level was converted from the Assistant Training Officer in the Training Section. In some cases AWPOs were ATOs previously. Their responsibilities in the training section was supervising FHAs and preparing/supervising the home economics components at DTCs, RTCs and FIs. Although the new section and post was created, the job description remained similar. The AWPO's duties are to work with the Training Officer to develop courses and syllabi as well as to supervise and implement in-service training for FHAs, and liase with other Departments on the training of women. In essence, although there is a new section and new post, the activities are not so different and ADD Management and other SMS have difficulty in seeing WP as having its own structure, priorities and programmes. In terms of budget, the section still comes under Training in the ADDs and RDPs. Management has been justified in viewing the section in the same way since for the most part WP has continued to function in the previous capacity.

TRAINING OF FEMALE EXTENSION PERSONNELWomen's Programmes Officers (WPOs) - TO and PO grades: Bunda College of Agriculture.

The college has a 3 year diploma and a 5 year degree programmes leading to Technical and Professional Officer grades. In its 17 years of existence, Bunda has admitted 204 women to the diploma and 33 women to the degree programmes. By 1982/83, 24 degrees and 124 diplomas had been given to women representing 14% of enrolments, 13% of diplomas and 8% of degrees awarded.

TABLE 1: BUNDA COLLEGE OF AGRICULTURE: ENROLMENTS, DIPLOMAS AND DEGREES AWARDED BY YEAR AND SEX.

Y E A R	STUDENTS ADMITTED			DIPLOMAS AWARDED			DEGREES AWARDED		
	M	F	T	M	F	T	M	F	T
1966/67		-	35	-	-	-	-	-	-
1967/68	66	3	69	-	-	-	-	-	-
1968/69	83	10	93	24	-	24	-	-	-
1969/70	79	6	85	29	-	29	-	-	-
1970/71	90	9	99	40	8	48	4	-	4
1971/72	42	9	51	42	2	44	12	-	12
1972/73	52	7	59	58	7	65	12	-	12
1973/74	57	4	61	35	7	42	9	-	9
1974/75	40	7	50	44	5	49	15	-	15
1975/76	41	10	51	52	2	54	21	-	21
1976/77	74	15	89	40	3	43	23	1	24
1977/78	62	3	65	38	5	43	28	-	28
1978/79	137	31	168	60	15	75	18	1	19
1979/80	92	28	120	64	2	66	33	5	38
1980/81	90	31	121	88	24	112	34	5	39
1981/82	104	16	120	87	23	110	30	6	36
1982/83*	78	15	93	96	21	117*	34	6	40*
TOTAL	1225	204	1429	797	124	921	273	24	297
% Women		14%			13%			8%	

\*Students in last year of programme.

Women and men take the same subjects except women have home economics and men have agricultural engineering courses. The problem comes when the women try to find jobs. Men are hired in civil services and private sector jobs. Men have chances to go into agricultural companies, estates, and research authorities. Women seem to be restricted to the teaching of agriculture in secondary schools in the Ministry of Education and selected jobs (especially Women's Programmes, and Principals at RTCs but occasionally Research Station and ADD section jobs) in the MOA. Some of the women are content with these options. Others would prefer to have a wider choice.

WPOs are Professional Officer and AWPOs are Technical Officer grades. Currently there are 3 WPOs at PO grade, 10 AWPOs at TO grade and 1 at STO grade in the WP section.

TABLE 2: OFFICERS IN THE WOMEN'S PROGRAMMES SECTION BY PLACE AND GRADE.

PLACE	GRADE-NUMBER HQ/ADD	GRADE-NUMBER RDP
MOA	PO -1	
KRADD	TO -1	
MZADD	PO--*, TO - 1	
KADD	STO -1, TO - 1	TO - 1
LADD	TO -2	
SLADD	TO -1..	
LWADD	TO -1	
BLADD	TO -1 -1-	PO - 1***
NADD	TO -1 (PO - 1**)	

\*In training  
 \*\*Seconded to WIADP  
 \*\*\*Expatriate

Farm Home Assistants: Thuchila

FHAs have been trained at Thuchila Farm Institute (TFI) starting in 1969. Applicants must have a Junior Certificate of Education with English and Mathematics or a Science. Preference is given to applicants who have had previous employment experience with the MOA. The capacity is 35 per year, but only once in its history (1976) has this number ever been obtained. The following table shows that the average number graduating is 22 per year. The total trained is about 291. Presently there are 16 FHAs in the field. Subtracting the 24 not yet employed there are 163 employed out of 267 trained, so the loss of trained FHAs is 39%. However, some have joined the Ministry of Health.

\*There is no specialized preparation for any students. Most of those who are employed by the MOA learn on the job.

## P R E F A C E

I would like to thank the Department of Agricultural Development (DAD), Ministry of Agriculture for all its help and encouragement. Mr. M. Muwila, formerly the Chief Agricultural Development Officer, supported the Project by Opening the National Workshop on Women in Agricultural Development and seconding Miss F. Kayuni to the Women in Agricultural Development Project (WIADP). The Acting Chief Agricultural Officer, Mr. A. Standen, aided by providing logistic support and transport for the Project team visits to the ADDs.

The Women's Programmes Officer, Mrs. C. Chibwana assisted the Project greatly with her continual contributions and instructions. She read drafts of this report and offered suggestions. However, the content is solely the responsibility of the author. The Women's Programmes Officers and Assistant Women's Programmes Officers in the ADDs helped make this report possible by their participation in WIADP's activities and willingness to provide materials and insights into their problems. Farm Home Assistants and Field Assistants were particularly helpful in the Project's work.

I would also like to thank Miss J. Evans of the Phalombe RDP for her input concerning extension methodology. Others who helped make this report possible were Mr. F. Mbuka (Principal of Colby College/Natural Resources College), Mr. F. Lwara (Principal, Thuchila Farm Institute), Dr. J. Weaver (Bunda College of Agriculture), Dr. L. Engberg (Chancellor College), Miss Chikwapula (Colby College), Mrs. G. Malindi (Training Officer - Ngabu ADD) and Mr. Chongwe (Training Officer - Lilongwe ADD). Members of the DAD who assisted in providing data were Mr. J. Mhango (Senior Extension and Training Officer), Mr. T. Madise and Mr. P. Baily (Agricultural Credit Officers), and Mrs. M. Chiligo and Mrs. R. Ayoade (Food and Nutrition Programmes Officers). The Programme Managers, ADD Section Heads, and Project Officers were very cooperative during WIADP's visits. Officers in Community Development aided with their comments and materials.

Mr. C. Smith and the USAID/Chitedze Agricultural Research Station staff helped with the printing. Finally, to Mrs. C. Ndacheredwa goes my greatest appreciation for typing this manuscript.

A. Spring  
Chitedze Agricultural Research Station  
Lilongwe, Malawi.

TABLE 3: THUCHILA FARM INSTITUTE INTAKE AND GRADUATES OF FARM HOME ASSISTANTS COURSE.\*

<u>Year</u>	<u>Intake</u>	<u>Graduated</u>	<u>Year</u>	<u>Intake</u>	<u>Graduated</u>
1969	21	19	1977	23	21
1970	21	15	1978	17	117
1971	20	17	1979	16	16
1972	22	19	1980	15	16
1973	25	16	1981	24	20
1974	18	16	1982	22	18
1975	23	23	1983	25	24**
1976	38	35			
			TOTAL	330	(291)
			Average/year	22	(19.4%)

\*Figures obtained from Principal of Thuchila Farm Institute.

\*\*One trainee has already withdrawn, final figure is unknown.

The syllabus presently used at Thuchila was unofficially revised in 1982. It contains 45% home economics, 31% agriculture, 17% communication, and 7% supporting subjects for a total of 974 hours. Agriculture consists of crop production, animal and land husbandry, and horticulture.

The amount of agricultural topics for women will be greatly increased at the Natural Resources College and the instructors will undoubtedly be more qualified. It is unfortunate that the present group of trainees will not benefit from improved training, especially since many of the trainees interviewed by WIADP expressed a desire to work with agricultural topics.

A problem in the FHA course, is that all crop operations for practicals are done by hand, even though ox-ploughs, ridgers, etc. are available at TFI. FHAs should be knowledgeable about the operation of oxen and tillage implements and have these topics included in their training so that they can promote ox-ploughing to rural women. Finally, agricultural practicals should be challenging and innovative as well as routine. Thuchila trainees this year have planted UCA maize but have not participated in planting other field crops such as PN3 sorghum or tobacco that are also planted at Thuchila.

The FHAs trained at Thuchila are few in number and their agricultural training is scanty even with recent curricular changes. Although FHAs are supposed to be knowledgeable about vegetable and poultry production, their training and practicals in these areas are minimal. The FHAs lack of adequate agricultural training is reflected in their attitudes and abilities to teach agricultural subjects. Two studies by WIADP document the training and problems of FHAs. (See Annex 6)

Female Field Assistants (FAs): Colby College

As of 1982, approximately 2300 students graduated from Colby. Women comprise 45 or 2% of the graduates. Entrance requires a pass at JCE level in English, Mathematics and Science. Preference is given to candidates with full certificates. Candidates are given English, Mathematics and Intelligence tests and, if successful, interviewed by the Public Service Commission. Male and female students take the same subjects except that males have courses in farm mech- surveying and building while females do home economics. Home Economics comprise only 15% of the course hours. Most of the women students interviewed by WIADP believed that the main career open to them was that of FHA rather than Field Assistant. In fact, Programme Managers and Project Officers tend to use female Colby graduates for training centres rather than as field assistants. Some feel these postings are a mis-use of trained personnel. Since the nation's first priority is agriculture, female FAs should be employed to do the job for which they are trained.

TABLE 4: NUMBER OF GRADUATES FROM COLBY COLLEGE OF AGRICULTURE BY YEAR AND SEX.

YEAR	MALE	FEMALE	TOTAL	YEAR	MALE	FEMALE	TOTAL
1957	44	-	44	1970	107	3	110
1958	39	-	39	1971	123	5	128
1959	-	-	Prison camp	1972	147	2	149
1960	17	-	17	1973	146	4	150
1961	15	1	16	1974	155	4	159
1962	8	-	8	1975	154	5	159
1963	30	-	30	1976	166	1	167
1964	27	-	27	1977	152	6	158
1965	34	-	34	1979	107	2	109
1966	32	-	32	1980	160	5	165
1967	35	-	35	1981	184	2	186
1968	87	-	87	1982	187	2	189
1969	99	3	102	TOTAL	2255	45	2290
					98%	2%	100%

FHAs and Female FAs: Natural Resources College

The training of FHAs and Field Assistants will be moved to the new National Resource College. Curriculum for the course is in the final stages of agreement. Essentially FHAs will take the same basic courses as Agricultural FAs. They will have courses in home economics. (Family Economics and Management, Housing and Technology, Human Nutrition, Food and Food Management, Child Development and Care) while FAs have courses in Mechanics, Rural Carpentry, Land Use Planning and Animal Production.

It is fortunate that FHAs will be trained at the NRC in the future. The curriculum for them will contain a substantial amount of agriculture (lectures and practicals) and the instructors should be better qualified.

The number of places (dormitory spaces) reserved for female students in all courses at NRC is 66 which is only 9.7% of the places at the college. However, with the previous poor record of recruitment shown at Thuchila, there is cause for concern that not enough women will be recruited for NRC as the present methods even fail to provide adequate numbers for Thuchila. New techniques will be needed to attract women to the College.

### Suggestions

1. Descriptions of the FHA and Agricultural FA courses should be prepared along with their respective job descriptions and information about the NRC. These should be distributed to the ADDs, TFI and Colby College personnel, Public Service Commission, Women's Programme Officers (Headquarters and ADDs), etc. so they can use this material in recruiting.
2. New methods of advertising the courses at NRC should be devised e.g., radio, visits to secondary schools, using WPOs to recruit, contacting Malawi Young Pioneers for candidates, etc.
3. Advertisements for all NRC courses should particularly specify that women are eligible for the courses.
4. Notification of acceptances for female students should be made at the same time as the male students. (Presently, Colby students receive their acceptances prior to Thuchila students).
5. Once the recruiting mechanisms are adequate and the number of women at NRC reaches the present dormitory capacity, it is suggested that another dormitory be constructed. The target percentage of women at NRC should be about 20-25% in order for the number of female extension workers to increase to sufficient numbers so that they will be plentiful enough to work with the nation's rural women and men.

### Training of WPOs in WID

It is useful to review the types of training, meetings, seminars and workshos, that have occurred within Women's Programmes since the section was converted from Home Economics in 1981. A number of recommendations and priorities which have shaped the programme have been made by the WPOs during their meetings, seminars, and workshops which are reviewed here.

Several external courses have aided the WP Section's personnel. Short Courses have been attended by WPOs and AWPOs in Zambia, Kenya, Zimbabwe, Tanzania and Netherlands.

### In-Service Training Workshops

The WPO/HQ has been diligent in scheduling meetings and workshops for Women's Programmes Officers. Recommendations from the Lunzu Workshop (January 1981) focused on career structure, training, research on appropriate technology, recruitment of female students in agricultural courses, transport for FHAs, coordination with other Ministries, annual seminars, balancing home economics and agriculture in FHA teaching and asking for more effective materials on nutrition. A reporting system for AWPOs and FHAs was designed. The career structure recommended was:

#### Ministry level

Sr. Women's Programmes Officer P7  
Women's Programmes Officer P8

---

#### ADD level

Sr. Women's Programmes Officer PO/CTO  
Women's Programmes Officer PO/CTO/STO

---

#### RDP level

Assistant WPO TO  
Senior FHA (one for 6-10 FHAs) STA

---

#### EPA level

Farm Home Assistant TA

### Internal Training

A series of meetings of WPOs and AWPOs were held at the MOA (June 1981, October 1981, December 1981, and March 1983) in which programmes and priorities were set. At the June 1981 meetings, the WPOs decided to prepare manuals for use by FHAs on home economics and agricultural subjects. The subjects were apportioned to the officers by ADD. First drafts of some of the manuals were circulated and discussed in December 1981 and March 1982. The October 1981 meeting of the WPO/HQ and WPOs, MZADD and NADD outlined the following priorities.

1. Reorientation of female extension workers in agriculture through in-service refresher courses.
2. Coordination with different departments through a Home Economics liason committee at ADD level.

3. Fact-finding about the knowledge and teaching of FHAs and the training preferences of rural women.
4. Strengthening of women's groups and their income generating activities.
5. Countering the lack of creativity of FHAs as regards local recipes and incorporating cookery practicals into agricultural, health and home improvement subjects.
6. Testing of more appropriate technologies.
7. Promotions and salary accelerations of FHAs to deal with low staff morale.

A National Workshop on Women in Agricultural Development was held on March 9-10 1982 at Chitedze ARS by WIAIP. It was attended by the WPOs and selected faculty and students from Chancellor, Bunda and Colby Colleges. Participants learned about general problems of women in agricultural development, the amount of African and Malawian women's contribution to farming, policy and evaluation of projects and women-headed households. The aims and objectives of the workshop were;

1. To provide an introduction to the topic of women in agricultural development, that is, to give background information on basic issues and concerns. (Most people have never had the opportunity for any training in WID);
2. To provide a broad perspectives on women in agricultural development;
3. To consider Malawian women farmers and query how they fit into development projects as agents of change and as beneficiaries of development;
4. To work with the Women's Programmes' Section of the the Ministry of Agriculture to aid in the development of national machinery for WID in Malawi; and
5. To prepare Women's Programme Officers (WPOs) and others for future meetings with managers and planners of development projects in Malawi. The goal was to help WPOs be more knowledgeable and sensitive to the needs of women farmers in the Agricultural Development Divisions.

Extension Management Seminar:- The seminar in which WIADP participated, was held December 6-10 1982, at Nathenje RTC. It brought together WPOs in order to improve their extension and management skills and acquaint them with programme planning and implementation. Recommendations were made concerning the following:

1. Programme Planning collection of baseline data in order to set objectives, utilization of a new format for annual work plans (see section on annual work plans) and the use of monitoring and evaluation procedures.

2. New Extension Approach: should involve male FAs working with women as well as men farmers while FHAs either help in blocks or teach more agriculture at training centres.
3. Extension methods: FAs and FHAs should be trained in and use the problem-solving step method to increase women's participation in project services. Local leaders should be concerned in involving women and recruiting women for leadership programmes.
4. Staff Training: Junior staff need more training in agriculture (stallfeeding, dairying, cash crops and plant protection) and relevant home economics subjects (family resources and management, family relationships, nutrition, health education, and local leadership. Senior staff need more training on relevant home economics, agriculture (e.g., land husbandry, farm management), communication and managerial skills.
5. Women and Credit: There should be a campaign to increase the number of women taking credit and women should be organized into groups and clubs for this purpose.
6. Coordination with other Ministries: is best done at ADD level.
7. Women's income generating activities should concentrate on agriculture content in the home economics classes.
8. Farmer Training Syllabus should be reviewed to increase its agricultural content in the home economics classes.
9. WPO/HQ should be informed of all WP activities in the ADDs by WPOs and AWPOs there and she should visit the ADDs herself or send a representative.
10. There should be coordination of WP through the mass media and Extension Aids. (Particulars not specified.)
11. Training in and offering of farm machinery to women should be encouraged. (Particulars not specified.)
12. In addition brief guidelines for including women in RDPs (e.g., South Mzimba) were prepared.

As a result of meetings and seminars, especially the Extension Management Seminar, WP has taken on a broader perspective than the in-service training and supervision of FHAs and the planning of home economics courses for rural women. There is an awareness that WP now should focus on getting rural women in the development process and in RDP services to farmers. In terms of training, the need to increase the agricultural content to rural women is well appreciated.

## II. SUGGESTIONS FOR WOMEN'S PROGRAMMES

### 1. NAME CHANGE

It is suggested that the name Women's Programmes and Women's Programmes Officer be changed to Women in Development Section and Women's Development Officer (WDO). Women's Programmes connotes an emphasis on home economics. The MOA's policy of emphasizing agriculture more than home economics should be recognized. Other Ministries use the term Women's Programmes to connote home economics programmes, especially sewing, cookery and home improvement. Agricultural programmes for women should be distinguished from these others. The new curriculum for FHAs and female FAs at the Natural Resources College, is primarily agriculture while home economics courses deal with family resource management, nutrition and the like rather than cooking and sewing. The training will be different from the previous training and a change in name would reflect the difference.

### 2. CAREER STRUCTURE

#### (a) General Comments

Women should be given the same opportunities as men to take general agricultural posts in the Ministry of Agriculture. This was first recommended by the Report of the Farm Home Economics Seminar/Workshop at Lunzu in January 1981. In extension (DAD) and research (DAR) women should be given the choice of joining any section rather than being confined to jobs as Women's Programmes Officers or principals of RTCs. Some female Bunda College diploma and degree graduates are interested in women's concerns. Others are not and it would be better if they were hired by MOA and the private sector in other capacities. The Public Service Commission and interviewers should be informed that women graduates from Bunda should be seriously considered for all Professional and Technical Officer posts. Furthermore, men as well as women can be hired for the section on women's programmes or women in development as men's experience in working in extension and research is usually more extensive than women's.

#### (b) Farm Home Assistants

Starting at the lowest level, the Farm Home Assistants have no possibility for promotion either in the section or between sections. This fact has been mentioned repeatedly in a past workshops and by the FHAs themselves. Although the post of Senior FHA has been proposed and accepted, funding is noted as the major deterrent. It is suggested that funds be made available in one way or another. One strategy is to convert STA positions at ADD level to SFHA positions. In addition, all RDP proposals to donors should write in SFHA positions for the new Natural Resources College. Suggestions for recruiting FHAs are given on page 5.

### (c) Female Field Assistants

These extension workers whose Colby training is 85% in agriculture and basic subjects and 15% in home economics should be used as FAs not FHAs wherever possible. Female FA graduates of the Natural Resources College will have virtually no home economics in their programmes and should be employed as Field Assistants.

### (d) WPO/HQ, WPOs and AWPOs

A clear structure for the WP section at ADD and RDP level is necessary for the section to function properly. The officer at ADD level should be at PO grade in order to act as a Subject Matter Specialist (SMS) comparable to other SMS at the ADDs. RDPs will require an officer at TO grade to supervise and be comparable to other officers in the project. The WPO/HQ should be assisted by a deputy professional officer. The structure proposed by the WPOs at Lunzu is supported here as it is both complete and allows promotions within the structure.

## 3. DUTIES AND RESPONSIBILITIES OF WOMEN'S PROGRAMMES STAFF

The WPO/HQ and WPOs (AWPOs) at ADD level have been spending most of their time supervising and planning refresher courses for FHAs. However, in addition to supervising their special staff they should (a) liaise with other sections to provide technical expertise, (b) give inputs to management on various national and ADD extension programmes, and (c) contribute to the development of RDP proposals.

1. WPOs as Subject Matter Specialists (SMS) will compile basic information on Women's participation in clubs, groups, credit programmes (seasonal, medium term livestock), block meetings, and demonstrations.
2. WPOs will work more intensively with the Evaluation Sections to design surveys on rural women and/or analyze data already collected by evaluation (e.g. NSSA, ASA, ADD Surveys) by sex of farmer and household head. Some WPOs have started this process.
3. WPOs will help review reporting formats from field staff to supervisors and from supervisors to management to make sure that sex disaggregated data is collected.
4. WPOs will work with other sections to make sure that they set targets and strategies for including women as well as men in their programmes as recommended at the Extension Management Seminar.
5. WPOs will participate in the Proposed Adaptive Research Programmes in the ADDs. (e.g., Farming Systems Research Rapid Reconnaissance Surveys).\*

\*A few of the WPOs have participated in the farming systems surveys carried out in an RDP in their ADD. They have gained valuable field experiences and aided in reminding the FSR teams to interview women farmers and consider constraints to women's production. Although WPOs do not ordinarily do research, they can pick up valuable extension information as well as gain knowledge of rural women's farming systems by working with other SMS in adaptive research surveys.

6. As their training skills increases, WPOs will offer suggestions to other SMSs and management as to how RDP proposals can include women in development components in order to impact on women as well as men.

The additional tasks of the WPOs will be facilitated by a change in emphasis in terms of their supervision and training of FHAs. The following revisions are suggested:

1. Although FHAs are being considered as part of the integrated extension staff and should be directly supervised by Development Officers (DOs), in practice DOs prefer to have the WPOs supervise them and often exclude FHAs from their programmes. Stronger directives as well as discussions with DOs by Project Officers and AWPOs should be held to remedy this situation.
2. AWPOs and SFHAs at Project level will contribute to providing direction in terms of programme planning to FHAs.
3. The Planning of refresher and other courses for FHAs will take up less time for the WPO at ADD because FHAs and female FAs will take many of the same courses with male FAs as is already being done in some ADDs. The WPO at ADD level will have to coordinate these courses with other SMSs and the Training Officer. FHAs will still need separate courses from time to time as well. It is possible that some of these special courses could be handled under the new Agricultural Research and Extension Project (AREP) to help the WPOs.
4. A priority strategy for WP has been that the WP and AWPO at ADD and Project level respectively should coordinate with Community Development and Local Government in terms of postings and programmes of HCWs and FHAs. However, with better coordination at national level as well as some guidelines for postings and seminars (given below under Coordination), WPOs will be able to carry this out better.
5. The WPO and AWPO will schedule occasional meetings with HCWs and FHAs to discuss coordination. However, HCWs and FHAs will not take courses together.
6. FHAs will participate with other extension staff at their EPA in training programmes and meetings.

Revised descriptions of female extension staff, (WPO/HQ, WPO, AWPO, SFHA, FHA) have been prepared by the WIADP and the WPO/HQ and are given in Annex 2. They reflect the duties and responsibilities as outlined above.

The job descriptions for the Women's Programmes Sections and Community Development personnel are given below in order to show the contrast. HCWs focus exclusively on homecraft and home improvement to women. FHAs focus on teaching rural

people, especially women, about agricultural production and food utilization as well as home economics subjects. They will also assist in collecting information about women's participation in extension and training activities.

To coincide with the revised job descriptions are revised monthly and half yearly reporting formats for WPOs, AWPOs, SFHAs and FHAs. Formats for FHAs and SFHAs will collect information on extension contacts, groups and income generating activities, training courses for rural people, topics taught, staff training, problems carrying out work plans and like. Formats for WPOs and AWPOs will collect information on farmer and staff training by sex and topic, numbers and contacts with various extension personnel, participation of rural women in credit services, liaison of WPOs/AWPOs with other sections and Ministries, and groups and IGAs of FHAs. A coding system has been devised, which will allow the WPOs, AWPOs and SFHAs to monitor the topics taught by FHAs. In this way, the impact of agricultural and other refresher courses on the topics taught by FHAs will be knowable. These formats are presented in Annex 3.

#### 4. STAFF TRAINING

So far the WPOs at all levels have had to rely on piece-meal training on women in development either gained through local experts joining their meetings or by a few of them obtaining external training. What is needed is training on a variety of WID issues. The WPOs at the Extension Management Seminar also identified training in communication, managerial and programme planning skills as being needed.

#### Suggestions for In-Country Training

1. Bunda College of Agriculture should include more WID materials in their Rural Development courses and seminars.
2. Natural Resources College should include WID materials in courses on Rural Sociology and Extension Methodology.
3. WPO/HQ should schedule workshops in WID at regular intervals and make use of available experts in the country e.g., Chancellor College, Centre for Social Research and its visiting scholars, Bunda College, Technical Assistance personnel at research stations (e.g., Farming Systems Analyst) and on various projects, as well as ADD and HQ SMSs.
4. There is probably enough expertise in the country to do further workshops on communication and programme planning skills. A workshop with Senior Agricultural Extension and Evaluation Officers could be useful in learning these skills or in discussing guidelines after WPOs have training in these skills.
5. The new Agricultural Research and Extension project (AREP) of USAID and World Bank should have an in-service training component for WPOs which focuses on project planning and WID training.

6. AREP should have in-service training components for FHAs, and female and male FAs on women in agricultural development, nutrition, and the teaching of resources management. It is suggested that a team be formed to go around the ADDs offering a series of in-service training workshops. The team should consist of technical consultants and Malawi SMSs.
7. Additional suggestions for the reorientation and training of FHAs are given below.

#### Suggestions for External Training

1. WPOs and AWPOs should continue to be sent to the course on WID in Tanzania.
  2. Several WPOs should obtain passports so they can attend short courses, workshops, and seminars whenever possible.
  3. Under the new AREP, WPOs will be sent for full University training (MA and Ph.D.) in various fields, but especially in WID.
  4. Under the new AREP (or if funding can be secured from other donors), US Department of Agriculture courses on WID and Project planning should be among the possible training for WPOs (see examples of courses pages 13, 14).
5. REORIENTATING THE FHAS AND CHANGING THE SYLLABUS FOR FARMER TRAINING

Annex 3 documents the training, knowledge and interests of the FHAs in relation to home economics and agriculture. Until such time as FHAs are produced at the NRC, many of those employed already (with the exception of those working as FHAs who were trained at Colby) will always be deficient in their agricultural knowledge. Some FHAs have no interest in agriculture. Others could do a lot more training of rural women in agricultural subjects with proper training. ADD refresher courses for FHAs separately or with male FAs can help those who want to learn and change their orientation.

There are 5 ways in which the FHAs and female FAs in the field can be reoriented in terms of their knowledge and what they should teach. These methods can be used indepently or together.

- (a) Syllabus for Farmer Training at Day Training Centres (DTCs), Residential Training Centres (RTCs) and Farm Institutes (FIs)

The Syllabus as presently used in some ADD has two courses (Agriculture and Home Economics) for each type of training centre. Table 4 shows that the the home economics course contains only 25% agriculture at DTCs, 22% at RTCs and 16% at FIs. Furthermore, the agricultural topics are restricted to horticulture, poultry keeping, and crop storage (Table 5).

TABLE 5:

BREAKDOWN OF CLASSROOM HOURS OF AGRICULTURAL AND NON-AGRICULTURAL TOPICS FOR  
AGRICULTURE AND HOME ECONOMICS COURSES IN THE SYLLABUS FOR FARMERS TRAINING  
(PERCENTAGES).

	<u>DAY TRAINING CENTRES</u>		<u>RESIDENTIAL T.C.</u>		<u>FARM INSTITUTE</u>	
	<u>Ag.</u>	<u>H.E.</u>	<u>Ag.</u>	<u>H.E.</u>	<u>Ag.</u>	<u>H.E.</u>
Agricultural Topics	88	25	86	22	93	16
Non-Agricultural topics	12	75	14	78	7	84

TABLE 6: BREAKDOWN OF CLASSROOM TIME FOR AGRICULTURAL TOPICS FOR AGRICULTURAL AND HOME ECONOMICS COURSES FROM THE SYLLABUS FOR FARMER TRAINING CENTRES.

SUBJECT MATTER	DAY T.C.		RESIDENTIAL T.C.		FARM INSTI.		DAY T.C.		RESIDENTIAL T.C.		FARM INSTI.	
	AG.	H.E.	AG.	H.E.	AG.	H.E.	AG.	H.E.	AG.	H.E.	AG.	H.E.
	Hours						Percentages (%)					
Crop Husbandry, Pests & Diseases	17	0	24	0	29	0	25	0	31	0	20	0
Horticulture	15.5	14	10	9	19	11	23	13	13	12	13	8
Crop Storage	10	6	0	3	0	0	0	6	0	4	0	0
<b>TOTAL CROPS</b>	<b>32.5</b>	<b>20</b>	<b>34</b>	<b>12</b>	<b>48</b>	<b>11</b>	<b>48</b>	<b>19</b>	<b>44</b>	<b>15</b>	<b>33</b>	<b>8</b>
Animal Husbandry and Diseases	9	0	15	0	63	0	13	0	20	0	43	0
Ox-Training and Cultivation	0	0	0	0	11	0	0	0	0	0	7	0
Poultry Keeping	0	7	0	5	0	10	0	6	0	6	0	8
<b>TOTAL LIVESTOCK</b>	<b>9</b>	<b>7</b>	<b>15</b>	<b>5</b>	<b>74</b>	<b>10</b>	<b>13</b>	<b>6</b>	<b>20</b>	<b>6</b>	<b>50</b>	<b>8</b>
Farm Management	9	0	11	0	10	0	13	0	14	0	6	0
Land Husbandry	9	0	6	0	5	0	13	0	8	0	3	0
<b>TOTAL MANAGEMENT</b>	<b>18</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>10</b>	<b>0</b>

TABLE 7 : BREAKDOWN OF CLASSROOM TIME FROM THE SYLLABUS FOR FARMER TRAINING CENTRES

SUBJECT MATTER	DAY T.C.		RESIDENTIAL T.C.		FARM INST.		DAY T.C.		RESIDENTIAL T.C.		FARM INSTITUTE	
	AG.	H.E.	AG.	H.E.	AG.	H.E.	AG.	H.E.	AG.	H.E.	AG.	H.E.
	Hours						Percentage (%)					
Crops	32.5	20	34	12	48	11	48	19	44	16	32	8
Livestock	9	7	15	5	74	18	13	6	20	6	50	8
Farm Management	18	0	17	0	15	0	27	0	22	0	10	00
<b>TOTAL AGRICULTURE</b>	<b>59.5</b>	<b>27</b>	<b>66</b>	<b>17</b>	<b>137</b>	<b>21</b>	<b>88%</b>	<b>25%</b>	<b>85%</b>	<b>22%</b>	<b>93%</b>	<b>16%</b>
Health & Nutrition	8	48	5	38	5	67	12	45	6	45	3	52
Clothing	0	32	0	18	0	35	0	30	0	23	0	27
Leadership	0	0	6	4	6	6	0	0	8	5	4	5
<b>TOTAL</b>	<b>8</b>	<b>80</b>	<b>11</b>	<b>60</b>	<b>11</b>	<b>108</b>	<b>12%</b>	<b>75%</b>	<b>14%</b>	<b>78%</b>	<b>7%</b>	<b>84%</b>
<b>Non-Agriculture</b>												
<b>TOTAL HOURS</b>	<b>67.5</b>	<b>107</b>	<b>77</b>	<b>77</b>	<b>148</b>	<b>129</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Topics such as crop husbandry, pests and diseases, animal husbandry and diseases, ox-training, farm management and land husbandry are not given. More time is expended on horticulture and crop storage at DTCs, and no time is given to poultry. The hours for health and nutrition are very few.

Some ADDS use the Syllabus regularly, other use it with modification. It is suggested that the Syllabus be revised so that the home economics course has at least 50% agriculture that is include other topics in addition to poultry and horticulture. Some models are presented here for the Home Economics courses which have about 50% agriculture and 50% home economics. The total number of hours are the same as the present courses. It should be noted that the policy states that the courses taught by FHAs should have 75% agriculture and 25% home economics. However, it is felt that at the present time it would not be possible for FHAs to teach this much agriculture and rural women would also expect to get that home economics training. Models are also given for the agriculture courses. These have been revised to provide 25% in nutrition, health and leadership at DTCs and RTCs, and 15% of these topics at FIS.

A committee to revise the Syllabus could come from DAD or this could be a task of the new AREP. Alternately, the WPOS and Training Officers could make their own modifications.

PROPOSED COURSES ON AGRICULTURE AND HOME ECONOMICS FOR DTCs, RTCs AND FIs

Agricultural courses have a nutrition component and Home Economics Courses, are 50% Agriculture and 50% Home Economics. Hours remain the same as in the present Syllabus for Farmer Training, and topics listed under each subject therein are referred to here.

DTCs: Agriculture (75% agriculture 25% health and nutrition).

Crop Husbandry	(14 hours)	a - j
Animal Husbandry	( 9 hours)	a - d
Horticulture	(10 hours)	topics condensed
Land Husbandry	( 9 hours)	a - d
Farm Management	( 9 hours)	a-d plus a section on importance of male/female labour.
Family Health	( 7 hours)	a - d
Nutrition	(10 hours)	to be prepared by FNP Section
	<u>68 hours</u>	

DTCs: Home Economics 52% Agriculture 48% home economics

Nutrition	(10 hours)	to be prepared by FNP Section
Cookery	(10 hours)	b - f
Home Improvement	(6.5hours)	a - b, d
Health	(7 hours )	a - d
*Horticulture	(10 hours)	topics condensed
*Farm Management	( 9 hours)	a-d plus a section on male/female labour
*Animal Husbandry	( 6 hours)	a - c
Needlework	(11 hours)	a - d
Child Care	( 7 hours)	a - d
*Poultry	(5.5hours)	a - c
*Land Husbandry	( 9 hours)	a - d
*Crop Storage	( 6 hours)	a - c
	<u>107 hours</u>	

RTCs: - Agriculture 75% Agriculture, 8% Leadership, 17% health and Nutrition

Crop Husbandry	(21 hours)	a - h
Animal Husbandry	(13 hours)	topics condensed
Horticulture	( 9 hours)	a - d, f
Land Husbandry	( 6 hours)	a - d
Farm Management	( 9 hours)	a - g
Health	( 4 hours)	b - e
Local Leadership	( 6 hours)	a - e
Nutrition	( 9 hours)	contents prepared by FNP Section
Total	<u>77 hours</u>	

RTCs: Home Economics 49% agriculture 5% local leadership 46% Home Economics.

Nutrition	( 8 hours)	contents prepared by FNP Section
Cookery	( 8 hours )	a - e

Health	( 4 hours)	b-e
*Local Leadership	( 4 hours)	b-d
Needlework	(10 hours)	a-f
*Crop Husbandry	(11 hours)	a, b, f
*Animal Husbandry	( 7 hours)	d, g, i
*Horticulture	( 7 hours)	d-d
*Farm Management	( 7 hours)	a-e, g
Crop Storage	( 3 hours)	a-c
Child Care	( 5 hours)	condense topics
*Land Husbandry	( 3 hours)	c, d
TOTAL	<u>77 hours</u>	

\*As for RFC Agriculture Course.

FIS: Agriculture 85% agriculture, 4% leadership, 11% nutrition and health.

Crop Husbandry	(20 hours)	condense topics
Crop Pests and Diseases	( 5 hours)	a-d
Animal Husbandry	(50 hours)	condensed topics
Ox-Training and Cultivation	(11 hours)	a-d
Animal Diseases	( 4 hours)	a-d
Commercial Vegetable growing	(10 hours)	a-c
Commercial Fruit Growing	( 9 hours)	a-f
Land Husbandry	( 5 hours)	a-c
Farm Management	(10 hours)	a-e
Health	( 5 hours)	b-d
Local Leadership	( 6 hours)	a-f
Nutrition	(12 hours)	to be prepared by FNP Section
TOTAL	<u>148 hours</u>	

FIS: Home Economics 50% Agriculture, 5% Leadership, 45% Home Economics.

Nutrition	( 8 hours)	to be prepared by FNP Section
Cookery	(13 hours)	b-d
Home Improvement	( 8 hours)	a-c condense topics
Child Care and Development	(10 hours)	b-d, f-g
Family Health	( 5 hours)	b-c
Needlework	(14 hours)	b, d, f
*Leadership	( 6 hours)	a-f
*Animal Diseases	( 4 hours)	a-d
Fruits and Vegetables	(11 hours)	a-d
*Crop Husbandry	(17 hours)	a-c condense topics
*Crop Pests and Diseases	( 6 hours)	a-d
TOTAL	<u>129 hours</u>	

(b) Manuals

Manuals are being prepared by WPOs on both Agriculture and Home Economics topics by WPOs. The process was begun in 1981. Thus far, the following manuals have been circulated to WPOs, although at present few have been finalized and none are in the hands of the FHAs.

\*As for FI. Agriculture Course.

Agriculture

Rice  
Soyabeans  
Sorghum  
Beans  
Maize  
Finger-Millet  
Sweet Potatoes  
Irish Potato  
Dairy  
Cassava  
Poultry Keeping  
Groundnut  
Stallfeeding

Home Economics

Needlework  
Cooking  
Nutrition and Cookery  
Health - general  
          - maternal/child  
Laundry  
Home Improvement - 2 versions  
Child Care - 2 versions  
Handicraft

It is suggested that a procedure be devised to speed up the preparation and revisions of the manuals. Presently all the WPOs go through all the manuals. One possibility is that the WPO/HQ plus one WPO should review the home economics manuals in conjunction with a home economist from Bunda or Chancellor College. Similarly the WPO/HQ plus one WPO should review the crop and livestock manuals with a specialist in these fields from Bunda, Chitedze or the ADDs. These Manuals are course outlines in which lessons and practicals for classroom instruction are specified and they will be very useful to the FHAs. Because FHAs lack knowledge and materials, it is suggested that these be completed as rapidly as possible commencing with the agricultural topics.

(c) Handouts prepared by SMSs

Liwonde ADD has devised the idea of having the SMSs prepare timely, technical handouts for all extension staff (including FHAs) on a regular basis. Additionally, they have prepared a Leadership Manual in sections related to agriculture and home economics. Other ADDs may want to utilize this method or WPOs may want to use some of the materials for the FHAs in their ADD.

(d) New Materials

In the new AREP, integrated materials for extension staff on agriculture, home economics and leadership topics could be designed for a variety of extension personnel. These could be printed by Extension Aids.

(e) Refresher Courses

As mentioned earlier, some ADDs are combining FHAs and FAs in all refresher courses including those on crops, credit animal husbandry and land husbandry. This is a good method for moving the FHAs into serious agricultural training and teaching.

6. REORIENTATING OTHER STAFF TO THE CONCERNS OF WOMEN'S PROGRAMMES AND WOMEN'S PARTICIPATION IN AGRICULTURAL DEVELOPMENT.

Coordination Seminars and Workshops

1. As suggested by one of the Programme Managers, the WPO should from time to time meet with other ADD SMSS on extension strategies. It is suggested that the Senior Agriculture Extension and Evaluation Officers would be appropriate for the initial seminar. Interestingly, the SAECs and EVOs are meeting at Club Makokola later in 1983 under a UN agency funded programme. The inclusion of WPOs would be useful. In future seminars the WPOs could meet with Programme Managers, Project Officers, Credit Officers, etc.
2. AWPOs should go with Evaluation Officers to the EPAs to discuss the supervision and reporting formats of FHAs.
3. WIADP has prepared ADD specific reports for 6 of the 8 ADDs. It is anticipated that reports for the other ADDs will be prepared later this year. These reports are specific to sections and sometimes projects as well and contain suggestions as to how they can include women farmers in their programmes in terms of targets and services. Suggestions for disaggregating the reporting formats (monthly, quarterly, half-yearly or annual) so that the impact of programmes on women can be monitored are also provided. The Lilongwe Agricultural Development Division has had seminars to discuss the report and select appropriate suggestions. Subsequently, a revised document listing the suggestions and disaggregated monthly reporting formats was prepared and is given in Part I Annex 2. The WPC/NO, PO/WIADP, along with WPOs in the ADDs should meet with the section heads and Project Officers to discuss the reports. Each ADD needs to decide on which suggestions are desirable and practical. Then a revised document which is agreed upon should be prepared. The WPOs will need to monitor the progress of the sections and projects implementation of the suggestions.
4. In the new AREP in-service training for all levels of male and female extension and research staff should have a component on women and development.

7. "FACT-FINDING"

There is a great deal of discussion about "fact-finding" and collection of baseline data about women but in practice very little is being done. The ways to proceed in these endeavors may not be clear. First, it is necessary to point out the difference between gathering a few facts and doing research on a topic. Second, there is a difference between collecting the figures

on participation of women in project services and doing basic research on women's participation in agricultural enterprises and farm management.

(a) Data on Project Services and Women's Participation

This type of "fact-finding" is relatively simple to collect. For example a survey form which collects data on the number of women and men in clubs, seasonal and medium term credit, stall-feeding, and dairy, as well as on the female extension staff and their group members is given below. WIADP used this format to collect the information for all EPAs in all Projects in LADD. The results are presented in Part 1 Annex 2. By collecting this type of data in terms of the smallest extension unit (EPA or Unit), it is possible to pin-point areas of low participation. If information is grouped together at the RDP or ADD level, it would be difficult to see differences in participation in particular areas. For example, in The LADD Project data, within the same project credit participation may vary considerably. In some areas of LRDP many of the stallfeeders are women, whereas in others there are none at all. If the totals were combined it would be possible to conclude that women participated in stallfeeding in all areas whereas in some areas there are, in fact, none at all.

Once these figures are collected and the percentage calculated, then the reasons for low participation in a particular area needs to be investigated. Here is where "fact-finding" comes in. "Fact-finding" may be done casually or scientifically. One can go to the EPA and "discuss" the issue with the extension staff and a few or many farmers. Or one can carry out a survey (casually or rigorously). For example, a random sample survey (of credit and non-credit farmers) that investigated contacts with extension staff, recruitment mechanisms, experience with livestock, inputs and improved crop varieties, etc., would reveal patterns of farmers' involvement with project services. Detailed interviews with extension staff would reveal the staff's patterns of operating.

(b) Research on Women and Farming Enterprises

One can do reconnaissance and formal surveys (see Section III on farming systems research) as well as detailed surveys and interviews on households (male and female-headed), among household members (intra households i.e., men and women in the same household) and on men and women farmers as individuals. Evaluation units have experience with the collection of large scale survey data. Farming systems or adaptive research has only been carried out on a limited scale and the in-depth interviews method has rarely been utilized to study Malawi's farmers (c.f. WIADP Reports and Evans 1981). Research can also utilize secondary data (that is, data already collected). For example, data on women's labour has already been collected by ABS. Data from NSSA, ASA and ADD surveys which have already been collected can be analyzed in terms of male and female household heads. Surveys that collected data on men and women operators can be reanalyzed in terms of those categories.

FORM FOR OBTAINING BASIC INFORMATION ON CLUB, CREDIT AND GROUP MEMBERSHIP BY SEX

ADD \_\_\_\_\_

EPA/UNIT \_\_\_\_\_

RDP \_\_\_\_\_

Name of person filling form \_\_\_\_\_

Rank \_\_\_\_\_

198 /8 Season

1. Clubs

Total Number of Clubs \_\_\_\_\_  
 Total Number of members \_\_\_\_\_  
 Number of men \_\_\_\_\_  
 Number of women \_\_\_\_\_

2. Credit

<u>Seasonal</u>		<u>Medium Term</u>	
Number of men	_____	Number of men	_____
Number of women	_____	Number of women	_____
Total number	_____	Total number	_____

3. Livestock

<u>Stallfeeders</u>		<u>Dairy</u>	
Number of men	_____	Number of men	_____
Number of women	_____	Number of women	_____
Total number	_____	Total number	_____

4. Other Programmes

_____		_____	
Number of men	_____	Number of men	_____
Number of women	_____	Number of women	_____
Total Number	_____	Total Number	_____

5. Women's Groups

			<u>Total</u>	
NO. of FHAs	_____	NO. of FHAs' Groups	_____	No. of members _____
NO. of HCWs	_____	NO. of HCWs "	_____	No. of members _____
NO. of DAs	_____	NO. of DAs' "	_____	No. of members _____
NO. of CDAs	_____	NO. of CDAs' "	_____	No. of members _____

Return one copy for files and return one copy to the Project Officer.

### (c) Baseline and Longitudinal Data/Surveys

The purpose of collecting baseline data is to study the effect on something at a particular time and then study a later time period in order to compare the earlier and later data to see if a change has occurred. Longitudinal data looks at the same things at different intervals.

#### Suggestions for WPOs and "Fact-Finding"

1. WPOs and AWPOs in conjunction with Evaluation should collect data on project services (credit, clubs, groups, extension contacts, afforestation, etc.) using the format offered here or one of their design. Some ADDs have already started this process. However, data on women should not be collected in isolation from data on men. All data should be presented in terms of numbers and percentages. It is suggested that they get approval from Programme Manager's and enlist the cooperation of Evaluation and Project Officers to collect the data from the Development Officers. The data can be checked with the SMS in Credit and Animal Husbandry Sections, Evaluation Officers could aid the WPOs in the loan of a calculator to tabulate the data and in analysis.
2. The WPOs need training in the collection and analysis of data in order to be able to put in meaningful requests to the Evaluation Unit who have the staff and resources to collect and analyze the data. A workshop could provide training in interviewing, questionnaire design and analysis, and survey techniques.
3. WPOs could work with Evaluation Officers to learn some of their methodologies. WPOs should work closely with the Evaluation Units in data gathering procedures and encourage Evaluation Units to analyze their data so that information on men and women household heads and men and women farmers can be available. WPOs could make special requests to Evaluation Section for the collection of data on rural women on particular subjects.
4. WPOs at all levels should join farming systems (adaptive research) teams that do surveys in their ADDs. (See comments above.)
5. WPOs could also request that research units (DAR) investigate constraints to women's involvement in specific areas and commodities.
8. WOMEN'S GROUPS AND INCOME GENERATING ACTIVITIES

WPOs have been discussing the strengthening of women's groups and income generating activities (IGAs) for a while. Clarification of the issues are in order. Women's groups, unlike farmers' groups, are formed after the women finish their day training course. FHAs are encouraged to have about 4 groups. A few do, but most have fewer or none at all. Women's groups that are active may have an IGA. Often the IGA is on a small scale and involves the group in making a product (such as scones or a handicraft) or growing a small amount of a particular crop

(unimproved or improved variety with or without inputs). One group in the North whose 30 members were farmers on an irrigated rice scheme, grew ½ acre of rain-fed rice for the IGA. Expectedly, they realized only low yields and profits. Another group on a maize and cotton scheme had 15 members who grew ½ acre of local maize which yielded 2½ bags (sold to ADMARC in 1982 @ K6/bag = K15). They had each contributed 50t (35t for ploughing and 15t for seed) for a total of K7.50. Profits were only K7.50 or 50t per member. This is an example of an income discouraging activity as the profits hardly justify the time and efforts expended.

On the other hand, there are good examples of women's groups who grew an acre of MH-12 in 1982/83 and got about 15 bags (K150 at ADMARC less K60.00 for inputs and credit charges). Each of the 15 members then realized K6.00. Of course a farmer in a farmers' club or group would have realized the entire K90.00 and really generated some income.

Two pilot projects provide models for involving women more fully in clubs and groups. During the 1981/82 growing season 13 women clubs in MZADD received seasonal credit. Profits were put into the club fund. Figures supplied by the Assistant Training Officer show that some crops are more profitable than others with some enterprises being reasonable in terms of remuneration while others are not.

TABLE 8  
CREDIT PROGRAMME IN MZUZU\*

Number Members	Crops Grown	Hectares	Input Cost(K)	Credit (K)	Income After Repayment (K)	Income/Member
22	beans	.5	1.50		7.50	.34
26	beans	.5	1.50		111.00	.42
30	MH-12	.5	41.33		110.00	3.67
	G/nuts					
20	MH-12	.4	38.22	45.46	44.00	2.00
15	MH-12	.4	38.22	45.46	147.84	9.86
20	MH-12	1.0	76.44	90.92	147.84	7.39
36	Sugar beans	1.0	4.65		81.88	2.27
23	Vegetables	.7	-		6.00	.26
26	White harcot beans	.5	1.50		14.00	.54
25	Rice		20.20	23.23	Nil (late sowing)	0

\*Adapted from M. Kachali (1983), "Participation of Women in a National Credit Programme" Paper presented at the National Agricultural Credit Seminar, Chinthoche, Feb. 7-11 p.4.

The second pilot project in Phalombe focused on organizing women into groups in order to receive credit packages as individuals. The pilot programme began in 1980/81 and there was a twenty-one fold increase in the number of women taking seasonal credit in 1982/83.

Table 9 SEASONAL CREDIT BORROWERS IN PHALOMBE RDP \*

YEAR	MEN	WOMEN	% WOMEN
1980/81	1099	54	50%
1981/82	2285	126	5%
1982/83	4518	1151	20%

\*From J. Evans, (1983), "Women's Involvement in the Seasonal Credit Programmes in the Phalombe Rural Development Project", Paper presented at the National Agricultural Credit Seminar, Chintsheche Feb. 7-11, p.1.

In Phalombe they chose to form credit groups rather than clubs in order to allow women to get seasonal credit with no probationary period to qualify for inputs. Furthermore, a new methodology was used to organize women into groups and the groups served various leadership and agricultural training functions. In particular, in addition to seasonal credit, the groups were vehicles for teaching improved crop husbandry practices and army worm control. The special needs of women and people in the area were taken into account i.e., high female headedness, high number of male heads involved in off-farm employment, small holding size and food differences and women's lack of leadership skills.

Field Assistants were taught the problem solving methodology (Annex 4) to identify important problems and organize the women. Leadership training was given to some of the women "to give them practice in going through the problem solving method and to discuss how they could organize and manage groups to help women" (Evans 1983). Interestingly, the women have already started to pay back their credit. As most of the women come from maize deficit households, they cannot sell maize to pay back their loan. Strategies to pay back loans include brewing beer, and growing minor cash crops such as chick peas, green grams and sunflowers.

#### Women in Farmers' Clubs

The policy says that men and women (married and unmarried) should be club members in order for them to be eligible for seasonal credit. Clubs are organized by farmers themselves and they facilitate ease of contact with the extension worker and credit recovery. Club farmers are generally the farmers who receive the bulk of a RDP services. The percentage of women in farmers' clubs tends to be low in most areas. It is our impression that if women are club members when the club is formed, then there are no difficulties with their membership. However, it is often more difficulties for a woman to get into an already formed farmers club that is all male.

The time has come to make some decisions on women's groups and their IGAs. Should they be informal groups generating small amounts of capital or should they be better organized and teach leadership skills, be eligible for project services and produce reasonable amounts of cash for their members' activities? The recommendation here is that the latter is a better course.

On the other hand, is it better for women to be in women's groups, with more limited access to Project Services, than in farmers' clubs which are in the mainstream? Or should a woman belong to both a women's group and a farmers' club? No answer to these questions are offered here as these need to be discussed. However, the WP section needs to understand that unless women's groups offer something that is worthwhile and help generate adequate income, they are cutting women off from participation in the mainstream of farmers' involvement in project services.

#### Suggestions for Strengthening Women's Groups and IGAs

1. FHAs should organize groups of women farmers using the problem solving methodology. This will give the women who have taken the day training course a broader base of concerns. FHAs should be trained in the problem-solving methodology and be able to provide leadership training to the women in their groups. To begin with, these groups should not be too large.
2. All FHAs should be advised about the need to become active in group formation. SFHAs and AWPOs should monitor FHAs involvement in forming groups (see reporting format for this in Annex 3).
3. Income generating activities should be distinguished from income preservation activities which are activities that save money for the family (such as making a garment instead of purchasing it). Furthermore, IGAs should not be at too small a scale so as to generate a very little income in total or per member. Too low a return may be a reason why interest diminishes and women are not interested in doing the activity in subsequent years.
4. Wherever possible, women should take up agricultural IGAs because markets for selling the produce are already set up. Handicrafts, could be considered for the dry season. However, markets for handicrafts may be difficult. Msukwa mentions that women who took the Home Management course and produced a variety of handicrafts complained that they were unable to find markets for their products. Research and experience in the handicraft trade shows that the product must be of a high and consistent quality. Often times the quality is lacking for all items produced by a group.
5. It is suggested that agricultural IGAs involve women in growing crops which will produce high yields (e.g., MH-12 rather than local maize) as well as in improved technologies that they will be able to use in enterprises in their own households.

#### 9. EXTENSION AIDS

The Extension Aids Branch of the MOA publishes handbooks, leaflets, magazines and circulars for farmers and extension staff. They prepare films, posters, radio programmes, photographs and

\*L.A.H. Msukwa (1982), "The Home Management Courses Programmes: An Evaluation Report" Zomba, Centre for Social Research p.14.

puppet shows. There are extension aids/audio-visual aids sections in the ADDs which print the ADD newsletters, prepare posters and handouts, and interview farmers. In publications and visual aids overwhelmingly, rural women are depicted doing home economics rather than agricultural activities. The 1983 calendar for example only shows male farmers in agricultural operations. Za Achikumbi magazine for farmers predominately features men doing farm operations. The Extension Aids Circular and posters on the Chitedze Maize Sheller depicts a man shelling maize. Women and men farmers in LRDP who saw the circular commented that women most often do this job and it would have been better to show a woman. There is a great potential for women to be represented as farmers in Extension Aids materials. Also, Extension Aids activities can impart agricultural information to women as well as men.

### Suggestions

1. The WPO/HQ and one designated WPO (from either LADD or KADD as these are located in Lilongwe) should monitor the inclusion of women in Extension Aids publications, radio programmes, puppet shows and films.
2. Films about women in agriculture, credit programmes, utilizing the problem-solving methodology, etc., should be designed and scheduled to be filmed.
3. WPOs in the ADDs should monitor the inclusion of women in ADD newsletters, posters, handouts and interviews.

### 10. APPROPRIATE TECHNOLOGY (AT)

One of the main ATs that has been offered to rural women is the mud stove. Most of the training centres have these stoves. If one examines the reporting formats for FHAs in terms of the adoption of stoves by rural women, the results are discouraging. For example, Annual Work Plans from Ntchisi and Dowa West in KADD show that few women adopted mud stoves. Rural women do not perceive the stove as advantageous as the promoters of the stoves. The focus on the mud stoves which continues today at Magomero, Colby and the Wood Energy Unit, seems unwarranted especially because research in other ATs such as food processors and garden labour saving devices is not being done very much. The Farm Machinery Unit at Chitedze Agricultural Research Station has prepared a Maize Sheller which could help women, although this technology has not been specified by the WP section as an AT to be targeted to rural women. ADMARC will be marketing the sheller soon.

### Suggestions

1. Specific requests from the WP section should be made to places where AT is being studied e.g., Chitedze ARS, Nasawa, the AT committee under OPC, etc.
2. The WPO/HQ should attend the AT show in 1984 in Zimbabwe in order to scout out ATs for rural women. Similarly she should contact Family Farms in Zambia and any other AT research units in nearby countries to find out what they are doing. Promising ATs should be brought back and tested. Methodologies for the introduction of an AT to the EPAs need to be devised. A work plan for introducing the maize sheller to rural women was provided at the Extension Management Workshop by WIADP.

3. The focus on mud stoves should be reduced so that a variety of available ATs can also be presented to rural women.

## 11. WOMEN AND CREDIT

The Extension Management Seminar held in December 1982 recommended that women and credit should be a top priority. Credit is often a major benefit to farmers and it is a very tangible way that farmers receive Project Services. The policy of farmers' getting seasonal credit in clubs and the possibility of women getting credit in groups are discussed above.

The national policy on credit allows both men and women to be eligible for credit. In practice, some women who would appreciate credit are by-passed by the process. Some ADDs allow married women to take seasonal credit others do not. The arguments against it is that it will be too much of a burden to the family or that it could cause disputes in the family. Some male extension workers find it difficult to think of women taking this kind of responsibility. Yet it is important to realize that there are married women who have been taking seasonal credit for years. Sometimes both husband and wife obtain seasonal credit, other times only the wife does. Those families seem to work it out. It is suggested that the implementation of the policy be flexible and workable and that families be able to decide if one or both spouses (husband and wives) should obtain packages. It is preferable for the people to decide on their own needs rather than <sup>for the</sup> extension workers to make arbitrary or generalized decisions for them.

The pilot project in Phalombe has pointed out that women are often disadvantaged in being able to participate in credit programmes. Special characteristics such as shyness and lack of participation in clubs place women at a disadvantage in terms of obtaining seasonal credit. The fact that women do not have tax numbers and collateral restrict their access to medium term credit. Concerning the latter, often women farming on their own for a while want to obtain farm equipment or work oxen to ease their labour burdens and increase production, but they are limited by the extension approach which tends to by-pass them. The number of women obtaining medium term credit is extremely small. In LADD, for example, it is only 1%.

Sometimes only impressionistic data on the number of women obtaining credit (seasonal, medium term, stall feeding, dairy, etc.) is available. It is important to be able know and monitor women's participation. WIADP has aided in the collection of this data by disaggregating by sex (separating into male and female) two forms of the National Credit Manual (1981). Form CFA 101 on Farmers' Club Requisition Issue and Promissory Note in the Manual asks for sex of farmer. For CFA 110 on Farmers' Performance on Repayments left out this information out but subsequently this information was requested by the MOA in a letter of 28 March 1983 (Ref.No. 13/20/1/1).

### Suggestions

1. The number and percentage of men and women getting inputs, implements and livestock on credit should be tabulated

(see page 23)  
seasonally. As noted earlier a form has been prepared to collect this information at the EPA level. The data for each project should be given in terms of EPAs and the project as a whole. That way it is possible to learn which areas are low rather than adding all the data together to get a Project or ADD average. The WPO, and Credit and Livestock Officers should collect this information and put it in monthly and half-yearly reports. Fact-finding is necessary in areas where the number of women who obtain credit are few.

2. Credit assistant's need re-direction in dealing with rural women. They should be made aware that the policy does not discriminate against women, but that women's special characteristics (shyness, lack of tax numbers, non-participation in meetings and clubs, etc.) contributes to fewer extension contacts. To aid rural women gain access to credit, the problem solving methodology used in Phalombe is one method of bringing them into this Project service. Other methods can also be utilized and should be devised.
3. Women seem to be good credit repayers either through their crop sales or by other means in food deficit areas. The recovery rates for men and women should be tabulated based on Form CFA 110.
4. Some fact-finding needs to be done as to why so few women apply for and are granted medium term loans.
5. Women's participation in credit livestock programmes seems to be desirable in many areas, but is often low because the extension staff simply does not recruit them. Extension staff should actively recruit women for stallfeeding and dairy programmes. WIADP's study of stallfeeders in LRDP showed that men are recruited by extension workers contacting them about the programme. Women become interested through husbands or other women but often the women have to contact the extension worker themselves and sometimes beg them to be able to participate in the programme.

## 2. COORDINATION WITH OTHER MINISTRIES

Circular OPC: Ref.No.11/01/5/10/145, June 23, 1981 entitled "Reallocation of Responsibilities in Certain Ministries and Departments" specifies the responsibilities of the different Ministries. Housing and Community Development is responsible for:

- "1. Housing Policy
2. Rural Housing
3. Adult Literacy
4. Home Economics
5. Training in Rural Development and Homecraft."

The Ministry of Agriculture is responsible for:

- "1. Rural Extension services
- (a) Crops
- (b) Livestock
- (c) Farmers' Families

## 2. Technical services

- (a) Land Husbandry
- (b) Irrigation
- (c) Settlement Schemes

- 3. Agricultural Marketing
- 4. Agricultural Research
- 5. Agricultural Planning and Evaluation
- 6. Veterinary Services
- 7. Animal Husbandry
- 8. "Animal Industry".

Because Community Development is responsible for Home Economics and Homecraft, Agriculture has deferred to them concerning home economics programmes. Over the years (1968-1982) there have been a number of evaluations of Women's Home Economics Programmes. The findings and suggestions from these studies are reviewed in Annex 5. Most studies or evaluations (Engberg 1968, Montgomery 1970, van Schelven 1975, Butler 1976, Williams 1981)\* recommended that all home economics training be carried out in one central place and the home economics programme be coordinated by a Ministry or the Home Economics Liason Committee. In the 14 years of various evaluations, none of the Ministries having women's programmes have followed these suggestions. All the evaluations except Hirschmann (1981)\* have assumed that the proper training for Malawian women is home economics although Butler and Williams argue that more practical information in food production should be taught to HCWS and FHAs.

The position taken here is that if the various Ministries were interested in combining training or programmes for field staff, they would have done so by this time. The programmes and services for rural women are multifaceted and should not be under a single Ministry. Although the clients are the same, the services offered to rural women, just like rural men, should be many. The more services to rural women, the better.

Nevertheless, coordination is useful because workers from Community Development, Agriculture, Local Government and Health all touch on home economics and deal with rural women. Each Ministry is happy with its workers and does not want to lose or combine them. (Nor does one Ministry want another Ministry telling it what to do.) No Ministry is prepared to do away with its function in this capacity whether or not it is running its programme satisfactorily or not.

Discussions with Community Development revealed some of the problems concerned with HCWS and FHAs. HCWS and FHAs often do the same thing. HCWS and FHAs use the same targets. However, HCWS work on a self help-basis, whereas FHAs usually have materials for demonstrations. Postings of HCWS is sometimes determined by available housing under the control of RDPs (Agriculture). Discussion of these problems is often minimal or non-existent. However, there are situations where coordination works well. For example, in Dowa West RDP there is a CDA (at TA rank) and an AWPO (at TO rank) in the same office sharing transport and discussing supervision of field workers. The Community Development Regional Officer from Central Region coordinates with Programme Managers from LADD, KADD

\*References are given in Annex 5.

and SLADD. It would seem that at ADD/Regional level, coordination can be worked out. At the RDP level the Project Officer and/or the AWPO (at ADD or RDP level if there is one) can coordinate with the Community Development person for that area or project. The problem arises at the national level, because currently there is no coordinating body which meets regularly. The Home Economics Liason Committee (HELC) which was first begun in 1968 has not meet since 1972. A criticism of the HELC was that its members were senior level administrators rather than technical persons responsible for carrying out programmes.

### Suggestions for Coordination

1. It is suggested that a National Committee become functional again. The Home Economics Liason Committee could be resurrected or a new committee on Women's Programmes could be formed. The membership should consist of technical people who carry out the programmes in Agriculture, Community Development, Local Government and Health. This committee would set policy and use feedback from the field in planning.
2. Regional Community Development Officers should meet regularly with Programme Managers and WPOs at ADD level.
3. Programme Managers should assign Project Officers, AWPOs or their representatives to meet with Community Development Personnel and Clerks of Council to coordinate postings, housing and programmes (see below on postings).
4. HCWs and FHAs have different levels of education and training. The training will become even more differential as FHAs are trained at the NRC. Additionally, the work that HCWs and FHAs do is likely to become more differentiated as FHAs follow the MOA policy of teaching more agriculture than home economics. Nevertheless, some FHAs trained in the past are similar to HCWs. In terms of postings there should be an attempt at ADD and Project levels to post FHAs whose training and practices are mostly on home economics at different EPAs from HCWs. FHAs whose training and interests include more agriculture can be posted in the same places as HCWs.

FHAs with mostly home economics - different post-  
training ing as HCWs

FHAs with mostly agriculture - same postings  
training as HCWs.

It should be pointed out that there are no conflicts among different types of male extension workers in the same area, so there need not be conflicts with female extension workers in the same area. Rural men and women are targets for all workers. Not all people in an area are reached by these workers in any case.

Labour distribution of farm operations of smallholder coffee growers  
in the Northern Region.\*

Surveys of smallholder coffee growers in the Northern Region were conducted in 1972/73, 1973/74 and 1975. Coffee is the only cash-crop in the area. Almost all of the coffee grown in the region is produced on small holdings having a high degree of self-sufficiency and a low level of capital inputs. Maize is the staple food crop, usually intercropped with beans. Both maize and cassava are also intercropped with coffee. In the study, each household was considered to be a coffee-growing unit when, in fact, some households had more than one coffee grower. Children, for example, may be given a coffee plot to provide future income. Some women also had small plots. In the area, coffee growers had slightly larger holdings than non-growers but all farmers planted most of their land (66% Mphempha, 41% Uzumara, 75% Mwentitete, and 84% Katowo) to maize and beans. (Katowo was the group of non-coffee growers)

In the survey, the labour of women and children was not converted to man-hour equivalents. Data is therefore presented in terms of hours worked as a percentage of total hours involved. Table 1 indicates that men-heads, women-heads/first wives, and second wives do most of the field activities. A sharp division of labour occurs in work associated with coffee growing, namely, nursery work, fertilizer/manure applications and pruning. These seem to be men's tasks. Women participated to some extent in all operations but pruning and did the majority of work on planting and harvesting. The operation of threshing, which applies to maize and millet, is carried out only by females. In terms of total hours involved the men's tasks are minor activities (see Table 2). Almost all time spent on farm operations is spent on the difficult tasks of clearing land, weeding, and harvesting. Figures 3a - d indicate that male heads of household spend most of their time off-farm (45 - 75% year round) as do women to a lesser extent (50 - 65%). Women spend more time on domestic activities than on crop activities but male heads and females of all ages work equivalently on the farm. Only males 15 and over do not make a great contribution toward farm operations. Hired labour is used chiefly for coffee cultivation, around 50 hours per acre but in no case was it more than 10% of the total labour input into coffee.

In general, there was no clear division between the sexes in terms of labour inputs into farm activities with the exception of the three coffee cultivation practices mentioned earlier.

\* Based on data from A.E.S. No. 26, September, 1978.

AGRO-ECONOMIC SURVEY

Report No. 26

MPHOMPHA: A farm management survey of smallholder  
Coffee Growers in the Northern Region, Malawi,  
September, 1978.

Table 1 : Field Operations by share of type of Labour, Mphompha, 1972/73:  
Percentage of total hours involved

Operation	Man Heads	Female-Heads and Wives	Males 15+	Females 15+	Children	Total
Clearing	41	26	16	11	6	100
Nursery Work	68	5	22	-	5	100
Planting	31	36	11	16	6	100
Fertilizing, Manure & Spraying	80	10	10	-	-	100
Weeding	40	27	14	12	7	100
Pruning	86	-	14	-	-	100
Harvesting	21	46	7	22	4	100
Threshing	-	63	-	31	6	100
Marketing	49	26	10	13	2	100
Other	69	3	18	7	3	100

Adapted from AES Report 26, table 25, P 32.

Table 2 : Farm Activities by Type of Labour (family labour only) in  
percentage of total hours involved Mphompha (1972/73)

Operation	Man Heads	Female-Heads and Wives	Males 15+	Females 15+	Children
Clearing	33	26	38	24	31
Nursery Work	2	-	1	-	1
Planting	5	6	5	6	6
Fertilizing Manure & Spraying	1	-	-	-	-
Weeding	44	36	42	35	44
Pruning	-	-	-	-	-
Harvesting	11	28	11	30	15
Threshing	-	2	-	2	1
Marketing	2	2	1	2	1
Other	2	-	2	-	1
Total (%)	100	100	100	100	100

Adapted from AES Report 26, table 26, P. 32

Annex 1

Figure 3

Distribution of time devoted to various activities per half month period (%)

Mphompha 1972/73<sup>88r</sup>



Off farm and non-farm activities (code 320-381)



Domestic activities code (307-315)



Miscellaneous farm operations code (300-306)



Livestock activities (code 200-210)



Crop activities (code 100-190)

Fig. 3 a Distribution of time devoted to various activities per half month period (%) Male heads of the household.\*

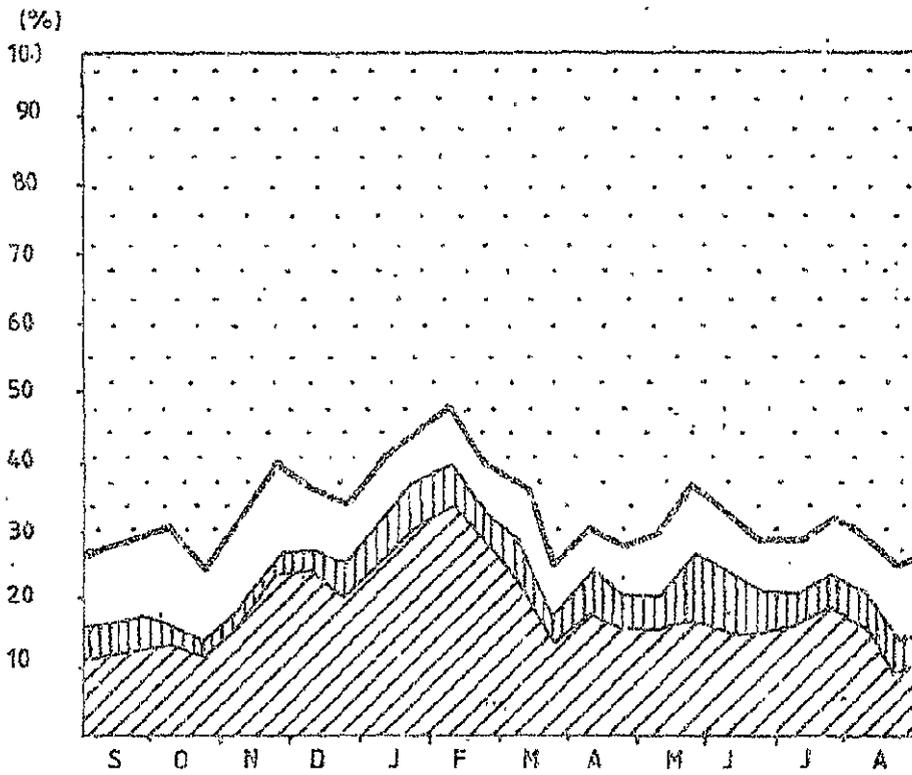


Fig. 3 b Female heads and wives

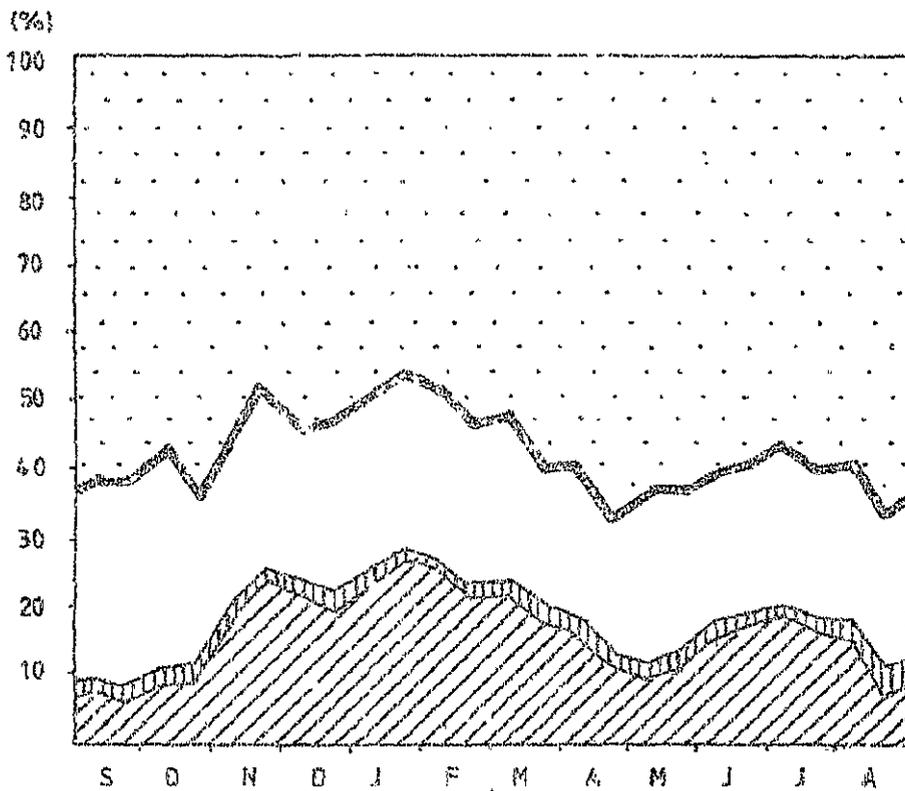


Fig. 3c Males of 15 years and over

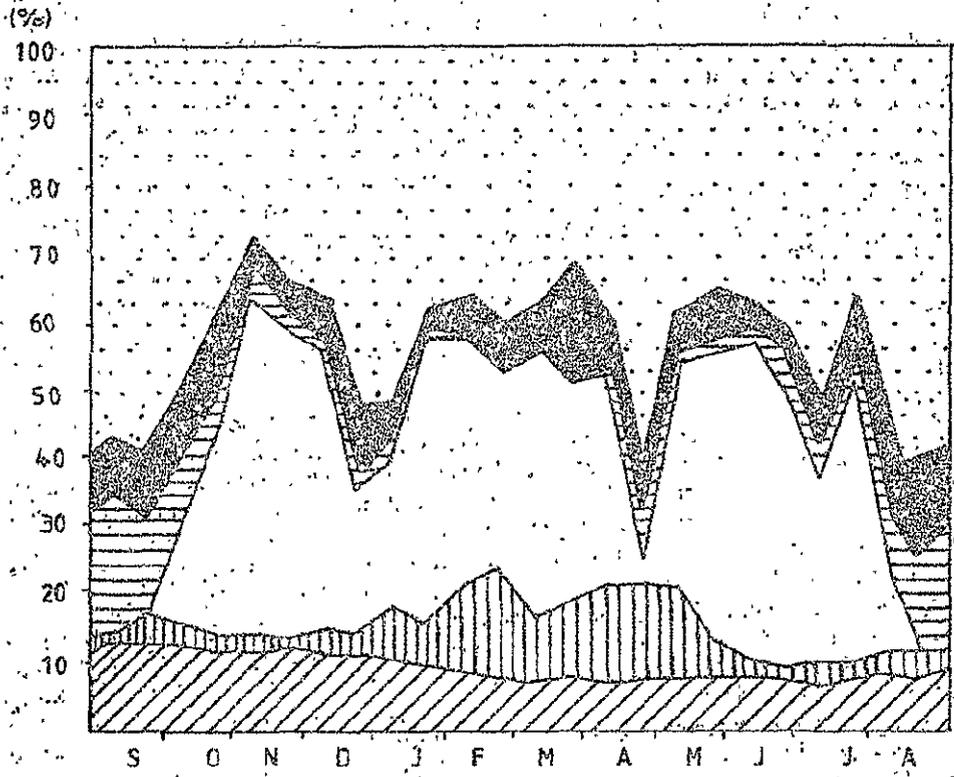
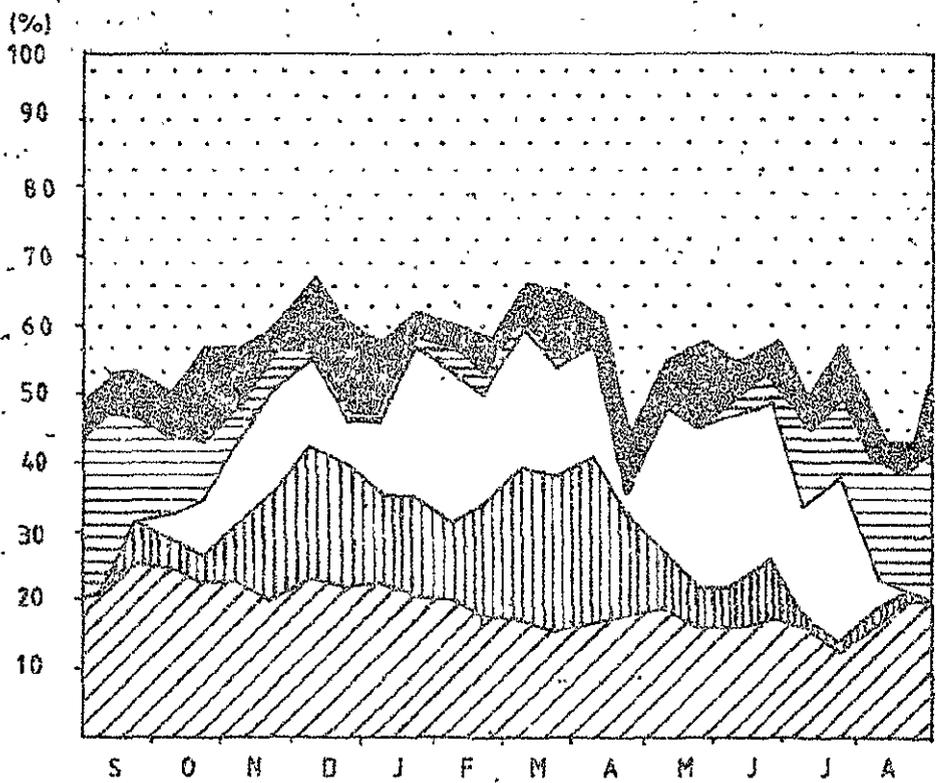


Fig. 3d Females of 15 years and over



Source: AES 1972/73 No. 2

## Labour distribution of farm operations in Mulanje\*

Surveys were conducted in 1971/72 and 1972/73 in four smallholder tea-blocks in the southern and southeastern part of Mulanje District. An additional survey was carried out in 1973 among the non-tea growing households in the same area. There is a high population density in the area and some male migration for employment, leaving slightly more females than males in the area. Tea estates in the area do offer employment opportunities relatively nearby (13 estates employ 4,000 labourers). Smallholders who grow tea have an average holding size of 5.1 hectares; those who do not grow tea have an average holding size of 1.1 hectares. Tea growers have a higher labour demand which presumably is met by hiring labour, working longer hours or by putting less time into their food crops. Labour data was not collected on the non-tea growers.

There does not appear to be a distinct division of labour on farm operations between males and females (see Table 1). Children do much of the miscellaneous activities including livestock care. In Table 2, there also appears to be no clear-cut distinction between male and female labour. All activities are performed by both sexes except pruning which is a male job. The Smallholder Tea Authority provides training in tea production for farmers. It must be assumed that males are the primary recipients of this training. Pruning is a task requiring a specific training, hence males do the pruning. This assumption that males get the training is reinforced by data presented in Table 3 depicting the percentage of time spent on tea (the cash crop) and maize (the food crop). Males spend most their time on tea production; females spend their time most on maize production. Men do 68 - 75% of tea operations, women do 25%. For maize the percentages are reversed. Over the two year survey period, 62% of the time was spent on tea, 38% on food crops. For males, this meant an average agricultural working day of 1.9 hours, for females 1.5 hours. The average length of a working day as a whole is very short (4.1 hours) especially when compared to estate work (8 hours). Interestingly females in general do more land clearing and uprooting than males.

---

\*Based on data from A.E.S. No. 19 Mulanje, June, 1976.

DIS

File  
ARDA

The same person can be approached by different workers. Furthermore, the number of female extension workers is small and FHAs are much fewer than HCWs. There are currently about 163 FHAs and 431 HCWs.\* Most places do not have an FHA so there are no coordination problems there.

5. Joint seminars for HCWs and FHAs should be held at ADD or RDP level from time to time. The content should be coordination and extension methodology. FHAs and HCWs should not attend refresher courses together as their education and training are different.

### 13. Coordination with Food and Nutrition Section

Sometimes the Food and Nutrition Programme (FNP) is confused with the WP section. Although the sections have some links, their client groups differ. WP has women as a particular client group and is interested in integrating women into all aspects of agricultural development. The FNP section has all Malawians as its client group and is concerned with food supply. The FNP Section relies on the existing extension staff to implement its programmes. The FNP section has tended to direct its attention to FHAs more than FAs and has given induction courses for FHAs on occasion. Since the section is relatively new (it was formed in 1978), some of its time is devoted to explaining its programmes and functions of data collection and analysis, nutrition surveillance, education and training, appropriate technology, preparation of resources materials, and curriculum development. The section has given a workshop for trainers on a nutrition training pack, which was designed in 1981.

#### Suggestions

1. The FNP section needs to prepare new course outlines for farmer training at DTCs, RTCs and FIs to replace the present emphasis on the three-food groups now found in the Syllabus for Farmer Training. As noted ~~above~~ a nutrition components for DTCs, RTCs and FIs for both Agriculture and Home Economics courses need to be prepared as soon as possible.

2. In conjunction with the <sup>Syllabus</sup> more in-service training needs to be given to field staff (both FAs and FHAs). FAs will ~~will~~ teach nutrition because not every DTC has an FHA. The training packs (either in part or in its entirety depending on funding) needs to be given to the FHAs and FAs with proper instruction for its use. This would involve training sessions at ADD level. Procedures for monitoring the impact of this nutrition education to trainers and rural men and women would have to be devised.

\*Figures supplied by Community Development 1983. The number is smaller than that given by Williams - see Annex 5 because some HCWs have left the service in recent years.

3. One of the manuals being prepared by the WPOs is concerned with nutrition. There will be no need for the WPOs to prepare this manual when the training pack can be used instead.
4. WPOs, SAEO (who are responsible for supervising the collection of data for the nutrition surveillance programme), and EVOs should be trained together on the use of the training pack and nutritional education materials. They also need to gain some in-depth understanding about nutrition principles and its relationships to smallholder agriculture. A week long workshop is suggested.
5. The new AREP should have some programmes on nutrition education for men at Training Centres.
6. The AREP could perhaps fund the printing of additional training packs so that all extension workers could have these materials.

### III. PRIORITIES FOR WOMEN'S PROGRAMMES IN A 5 YEAR P.L.N.

In order to set the Priorities and Work Plans for Women's Programmes in the MOA, it is necessary to ask what is the desired outcome of the Programme in a 5 years' time. Here is a list of possible outcomes for the Section.

#### General Structure

1. Women's Programmes will be renamed Women in Development with a focus on helping rural women learn more relevant home economics and nutrition and participate in agricultural development programmes.
2. WPOs in the ADDs will act and be considered as Subject Matter Specialists (SMS).
3. The WPO/HQ and her deputy will (a) monitor MOA programmes planning for the inclusion of women, (b) visit ADDs to review their programmes and work plans for the inclusion of women on a regular basis, (c) plan regular meetings/workshops for WPOs and AWPOs separately and with other extension staff.
4. Other ADD and HQ staff will be aware of the WP new emphasis, job descriptions and activities.

#### Staff Positions

1. Career structure will be established.

HQ	WPO	P7
	WPO	P8
ADD	WPO	PO/CTO
RDP	SAWPO	STO/CTO
	AWPO	TO
	CFHA	STA
EPA	FHA	TA

2. All WPOs at ADD level will be SMSs at PO/STO/CTO rank.
3. RDPs funded within the 5 years will have TO and SFHAs positions.
4. New job descriptions for all ranks of worker will be accepted.
5. Women can be promoted within the Sections' structure and to other positions in the extension structure.

#### Staff Training

1. Enough candidates for the FHAs course at NRC will be recruited so that the programme will be operating to capacity by the end of 5 years.
2. WPOs and AWPOs will have received in country training on WID issues under new AREF.

3. One WPO or AWPO will be sent to the course in Tanzania each year. WPOs and AWPOs will attend other courses and workshops as they arise.
4. WPO/HQ will get further training in women in development.
5. Some WPOs will have started masters training under the new AREP.
6. SMSS and male extension staff will have a WID component in their training under the new AREP.
7. FHAs will attend ADD or project refresher courses along with TAs.
8. FHAs will be eligible to attend the external courses that FAs attend.

#### Curriculum Design and Farmer Training

1. The Syllabus for Farmer Training will be revised or a new teaching curriculum will be designed so that the courses taught by FHAs have 50% agricultural topics (which are not confined only to vegetable and poultry production) and 50% relevant home economics, nutrition and leadership topics.
2. A nutrition component for DTCs, RTCs, and FIs for both agriculture and home economics courses will be designed and utilized by both male and female staff for both male and female farmers.
3. Leadership courses for rural women will include the problem solving methodology, <sup>and</sup> information on clubs, credit, and group/club organization. More of these courses will be scheduled and many women recruited for them.
4. At least 30% of places in agricultural courses will be set aside for women and at least 30% of the participants will in fact be women.
5. Manuals or handouts from SMSS will be completed and given to extension staff.

#### Coordination

1. Project Officers, AWPOs, or SFHAs at RDP level will have regular meetings to coordinate with CDAs and Cler's of Councils. They will schedule an annual seminar for FHAs and HCWS.
2. WPOs at ADD level will liase with regional Community Development Officer concerning postings of FHAs, female TAs and HCWS.
3. The National Home Economics (Women's Programmes) Liason Committee will be resurrected and meet according to their needs.

## Research Data and Surveys

1. Adaptive Research teams at the ADDs will have input from the WPO as SMSs. WPOs to accompany teams doing farming systems surveys and adaptive research.
2. WPOs will work with the Evaluation Section in the ADD to either conduct studies specifically on rural women in their areas, or to be sure that existing surveys obtain data on rural women and analyze data collected in terms of women and men.
3. WPOs and AWPOs will collect baseline data on women's participation in Project and ADD services.

## Reporting Formats and Work Plans

1. The new reporting formats for WP will be adopted and utilized.
2. All WPOs and AWPOs will be able to prepare operationalizable work plans with specific strategies for reaching rural women.
3. Data about rural women will be utilized in the planning and preparation of programmes.
4. WPOs will check the work plans of other SMSs to ascertain if they have included targets and strategies for reaching women and men.

## Monitoring the Inclusion of Women in Extension Services

1. The WPO/HQ and WPO/DAR will sit on the long and short range planning committee and help review RDP proposals for the inclusion of women (targets and strategies).
2. The participation of rural women in project services will be increased.
  - (a) The ADD reports will be reviewed and appropriate suggestions adopted to suit the needs of the ADD. This will be guided by the WPO/HQ, WPO/DAR and the WPO at each ADD.
  - (b) Participation of women in project services will be monitored by the WPOs and AWPOs in conjunction with the Evaluation Officer as measured by the numbers and percentages of women in groups, clubs, seasonal and medium term credit, livestock programmes, attendances at extension activities (block meetings, demonstrations and field days/tours), attendance at agricultural training course, participation in land husbandry and afforestation programmes, etc.
  - (c) In particular, there will be an increase in women's participation in extension and credit activities. The number of women in farmers' clubs and women's groups will be increased. Women's

participation in seasonal credit will reflect the percentage of female headed households in the area as an indicator of a minimum figure, keeping in mind that some married women may obtain credit. Women will participate in the medium term credit programmes to a greater extent. The percentage of women taking credit for livestock will increase significantly.

- (d) Women's groups: All FHAs will have at least 4 women's groups in addition to teaching at training centres. FHAs will learn about IGAs and have their groups undertaking IGAs on group and/or individual basis.

#### Extension Aids

1. Publications and films will depict women as farmers, as well as wives.
2. An Extension Aids Circular on how the male extension staff can help women farmers will be prepared and circulated.
3. Women will participate in radio interviews. Broadcasts will address their agricultural needs as well as home economics interests.

#### Appropriate Technology(AT)

1. Liason with centres and stations that test ATs will be made.
2. A wider variety of ATs will be available to rural women.
3. Mechanisms and strategies for getting various ATs to rural women will be devised and will involve all extension staff. FHAs in particular will be trained and involved in these technologies.

#### IV. 5 YEAR PLAN FOR WOMEN'S PROGRAMMES

##### 1. Operationalisable Work Plan (Plan of Action)

There are tasks to do and programmes to be started in order to reach the desired outcome in 5 years' time. Some of these tasks are recurrent and must be done every year. Others require initiation only once, but follow-up to assure that they are being approved or carried out. In the following pages, the activity, task or programme is listed, and the length of time to complete it is estimated. The year the activity should be initiated and completed, and the personnel responsible for carrying out the work are noted. Finally, basic follow-up procedures are suggested.

##### 2. Monitoring and Evaluation

The implementation of this 5 Year Plan will be monitored by the WPO/HQ and the WPOs/AWPOs at ADD level. Formats to undertake the monitoring exercises on a yearly basis are given below.

It is possible for participants of a programme to evaluate its effectiveness by relating the achievements to the objectives. However, it is suggested that the Women's Programmes be evaluated by someone outside the Programme, preferably an external Women in Development specialist. Evaluations should take place after 2 years and at the end of the 5 year programme.

SUMMARY OF 5 YEAR PLAN

PROGRAMME/ACTIVITY	Year Started				
	1983	1984	1985	1986	1987
1. Renaming of Women's Programmes Section	X				
2. Completion of ADDs' reports	X				
3. ADD seminars to discuss ADD reports	X				
4. ADDs to prepare disaggregated reporting formats	X	X			
5. Career structure for Women's Programmes Section	X	X	X	X	X
66. Job description for WPOs/AWPOs, SFHAS/FHAS, FHAS	X				
77. New reporting formats for WPOs/AWPOs, FHAS/SFHAS and female TAs.	X				
8. RDP proposals to include strategies for women	X	X	X	X	X
9. Monitoring of Work Plans by WPOs/AWPOs	X	X	X	X	X
10. Collection of baseline data on women's participation in project services.	X	X	X	X	X
11. Greater Involvement of Women in Farmers' Clubs and Credit Programmes.	X	X	X	X	X
12. Evaluation sections' own data analysis by sex	X	X	X	X	X
13. WPOs with EVO to design surveys on rural women		X	X	X	
14. Training of WPOs/AWPOs	X	X	X	X	X
15. Revision of Farmers' Training Syllabus		X			
16. Manuals written by WPOs/AWPOs	X	X	X		
17. FNP Section training	X	X			
18. Coordination of WP and Training Section	X	X	X	X	X
19. Training of SFHA, FHAS and Female TAs	X	X	X	X	X
20. FHAS and female TAs to intensify formation of women's	X	X	X	X	X
21. WPO/HQ and WPO/WIADP to make regular visits to ADDs.	X	X	X	X	X
22. Recruitment of Women for NRC courses	X	X	X	X	X
23. Home Economics Liaison Committee	X	X	X	X	X
24. Coordination with Com. Dev. Services at ADD level.	X	X	X	X	X
25. WPOs' participation in Adaptive Research		X	X	X	X
26. Appropriate Technology to rural women		X	X	X	X
27. Monitoring of Audio Visual Aids' section programmes			X	X	X

5 YEAR WORK PLAN

PROGRAMME/ACTIVITY	TIME REQUIRED	WHEN STARTED	WHEN COMPLETED	PERSONNEL	FOLLOW UP
1. Women's Programmes Section renamed Women in Development Section	1 Day	1983	Awaits MOA's decision.	WPO/HQ should put through request	Follow progress
2. ADDS' Reports: complete KRADD and MZADD	2 months	1983	1983	WPO/HQ, WPO/WIADP interviews and prepare report	Circulate Report to ADDS
3. ADD seminars to discuss ADD reports: SLADD, KADD, BLADD, NADD, LWADD, KRADD, MZADD.	6 months	1983	1983	WPO/HQ and WPO/WIADP help conduct seminars with WPO/ADD	Prepare final Report and circulate
4. ADDs to prepare sex-disaggregated reporting formats after seminar on ADD reports.	1 month each	1983	1983	WPO/AWPO at ADD and ADD Officers.	WPO/AWPO to submit formats to WPO/HQ.
5. Career Structure for WP Section staff to be submitted for MOA's approval.  After approval DAD to contact PMS to request that the structure should be implemented by setting aside:  (a) STA posts for SFHAs; (b) PO posts for WPOS (c) AWPO for RDPS	already prepared  undetermined	1983	Awaits MOA's approval	WP/HQ submit the career structure.  DAD, PMS, WPO/HQ	WPO/HQ to follow progress  Yearly as posts and graduates become available. Others upgraded as posts are available, WPO/HQ and WPO/ADD to monitor.

<p>6. Job Descriptions - submit for MOA's approval</p>	<p>already prepared</p>	<p>1983</p>	<p>Awaits MOA's decision</p>	<p>WPO/HQ should submit job descriptions to CAO</p>	<p>WPO/HQ to follow progress</p>
<p>7. New reporting formats for WPOs, AWPOs, FHAs, female TAs, should be printed, distributed and utilized.</p>	<p>½ day/month 1 day/half year for staff to complete</p>	<p>1983 and yearly</p>	<p>Yearly</p>	<p>WPOs/AWPOs, SFHAs, FHAs, and female TAs.</p>	<p>The WPOs/AWPOs should monitor the use of the reporting formats by SFHAs, FHAs and female TAs.</p>
<p>8. RDP: Proposals (a) Liason with Planning Division</p> <p>(b) WPOs at ADD level will give suggestions to management as proposals are prepared.</p> <p>(c) Proposals checked for inclusion of Women's Programmes Section staff positions</p>	<p>as required</p> <p>as required</p> <p>as required</p>	<p>1983-1987</p> <p>1983-1987</p> <p>1983-1987</p>	<p>Continual process as RDP proposals are prepared (see list)</p> <p>Continual process as RDP proposals are prepared (see list)</p> <p>Continual process as RDP proposals are prepared</p>	<p>WPO/HQ, WPO/WIADP Planning Division, consultants if needed</p> <p>WPOs/ADD</p>	<p>Contact Planning Division for schedule of RDP proposals</p> <p>WPOs should discuss suggestions with EVO and WPO/HQ.</p> <p>WPO/WIADP and WPO/ADD, WPO/HQ to check proposals.</p>
<p>9. WPOs monitor work plans and strategies offered by SMSs to have women in their programmes.</p>	<p>as required</p>	<p>1983 and yearly</p>	<p>yearly</p>	<p>WPOs</p>	<p>WPOs to offer suggestions to SMSs for their work-plans to include targets and strategies for women.</p>

10. Collection of baseline data on women's participation in Project Services:

- (a) Prepare format (or use the one here) on club and group membership, and seasonal/medium term credit takers
- (b) Circulate format to Project Officers (to give to DOs for data collection).
- (c) Analyze data

already prepared or prepare another (1 day)

1 month\* (this procedure took 1 month for 61 EPA Units in LADD)

1 month

1983

1983/84  
1984/85  
1985/86  
1986/87

1983  
and  
yearly

1983

1984  
1985  
1986  
1987

yearly

WPO/AWPOs at ADD in conjunction with Evaluation Officers and Project Officers

If the ADD utilizes sex-disaggregated reporting formats than there is no need for the WPOs to collect this data themselves after the first year. However, they should monitor the analysis of the data.

11. Women's Participation in farmers Clubs, credit programmes and general extension contacts:

- (a) WPOs/AWPOs will work with Credit and Training Officers on retraining male staff to recruit women for credit programmes.
- (b) Special credit programmes (e.g., Phalombe) will be approved by Programme Managers
- (c) PMS will remind male staff to contact women farmers and recruit them for credit programmes, and other extension activities.

continual process

6 months

Discuss in refresher course

1983/84 cropping season and yearly

1984/1985 cropping season

1983 and yearly

1984 and onwards

1985 and yearly

1983 and yearly

WPOs/AWPOs, Credit and Training Officers

PMS, WPOs/AWPOs, Credit Officers Field Staff

PMS, SMSS and Field Staff

WPOs/AWPOs, FHAs/SFHAs to make sure that staff are trained

WPO/AWPO to present proposal to PMS and monitor the carrying-out of the programme

WPOs/AWPOs and Evaluation Units to monitor progress.

(d) Evaluation Units should start analyzing their data by sex of household head and by men and women (where appropriate) e.g., NSSA, ASA, as well as ADD surveys.	all the time	1983	1987 and onward	Evaluation Officer	WPOs to monitor the disaggregation of survey data by sex.
12. WPOs work with EVO to design surveys on rural women. For example pre- and post-project surveys of labour, income, adoption rates, etc. should be carried out.	as required	1984 1985 1986	depends on duration of survey	EVO, enumerators, WPOs	WPOs initiate. Request and make sure that surveys are carried out.
14. Training of WPOs/AWPOs (a) <u>In-service</u>					
1. Communication and management skills	1 week	1984	1984	WPOs/AWPOs, Lecturers, and resource people	Circulate reports to Seminars/Workshops participants, CAO and Programme Managers.
2. Updated course on nutrition	1 week	1985 (repeat) 1987	1985 1987		
3. Basic organization and strategies for implementing this report.	1 week	late 1983/ early 1984	1983/84		
4. WID Concepts.	1 week	1986	1986		
(b) Workshop with SAEOS, EVO on extension methodology.	1 week	1983 (repeat 1985)	1983	WPO/AWPOs, SAEOS, EVOS.	Circulate Report
(c) <u>External</u>					
1. WPOs/AWPOs to attend short courses as they arise. Therefore, they should obtain passports.	as required	as available	as available	WPOs/AWPOs	Prepare report on what was learned.

2. WPOs/AWPOs to be given training on WID and Project Planning supported by donor funds.	Depends on length of course	1984	Depends on length of course	WPOs/AWPO	Those trained will brief other WPOs/AWPOs on project planning and WID subjects
15. <u>Syllabus for Farmer Training</u> revised.	1 year	1984	1985	WPO/HQ Training Officer/HQ and ADD Officers	WPO/HQ to make sure that the <u>Syllabus</u> includes more agriculture in the home economics and nutrition in all courses.
16. Manuals written by WPOs/AWPOs					
(a) Preparation of the remaining manuals.	3 months (most already written)	1983	1983	WPOs/AWPOs	WPO/HQ to make sure that the manuals are revised, circulated and approved: within the time limit given.
(b) revised and approved	6 months	1983	1984	WPOs/AWPOs consult with SMSS.	
(c) distribute	1 month	1984/85 yearly to new staff.	1984/85	WPO/HQ.	
(d) teach usage	1 month and yearly	1984/85 and yearly	1984/1985 and yearly.	WPOs/AWPOs, FHAS	
17. Food and Nutrition Programmes Section;					
(a) Prepares Nutrition outline for <u>Syllabus for Farmer Training</u>	1 week	1983	1983	FNPOs	WPO/HQ to collect the outlines.
(b) FNP Section holds workshop for WPOs to instruct on latest nutrition information, distributes training packs and current materials.	4 days	1984 and repeat in 1986	1984 1986	FNPOs, WPOs, consultants if needed.	Workshop report should be distributed to participants and CAO

(c) Distribute materials prepared by FNP section to FHAs, FAs.	1 month	1983 and yearly to new staff.	as required for new staff	FNPOs, WPOs, FHAs, FAs.	WPOs to liase with FNPO on distribution of materials.
<p>18. Coordination of WP and Training Section:</p> <p>(a) WPO/AWPOs and Training Officers will train FHAs, SFHAs, and FAs in the problem-solving methodology.</p> <p>(b) WPOs/AWPOs, SAEOs and Training Officers will implement the policy of at least 30% of spaces in agricultural courses for women. They will notify DOs concerning this requirement.</p> <p>(c) Leadership courses and group management/credit courses scheduled for rural women at DTCs, RTCs and FIs by WPOs and TOs.</p>	<p>Training given during refresher courses of all types (½ day/course).</p> <p>Continuously</p> <p>continuously (1 week courses).</p>	<p>1983 and yearly</p> <p>1983 and yearly</p> <p>1983 and yearly</p>	<p>1983 and yearly</p> <p>1983 and yearly</p> <p>1983 and yearly</p>	<p>WPOs, AWPOs, TOs FHAs, FAs.</p> <p>WPOs, SAEOs, TOs, DOs, Principals</p> <p>WPOs, TOs schedule. Extension staff recruits rural women.</p>	<p>WPOs to monitor the number trained and using the method.</p> <p>WPOs/AWPOs and TOs to monitor attendance figures by type of courses</p> <p>WPOs/AWPOs and TOs to monitor attendance figures by type of courses.</p>
<p>19. Internal</p> <p>(a) FHAs to take their refresher and special agricultural courses with FAs (e.g., crop/animal husbandry, credit, extension methodology, etc.)</p> <p>(b) FHAs to have special courses on their own to discuss manuals, group formation, methodology, etc.</p> <p><u>External</u></p> <p>(c) SFHAs, FHAs and female FAs to attend short courses as they arise just like the male FAs.</p>	<p>1-2 weeks (twice a year)</p> <p>1 week</p> <p>Depends on length of course</p>	<p>1983 and yearly</p> <p>1983 and yearly</p> <p>1984</p>	<p>1983 and yearly</p> <p>1983 and yearly</p> <p>Depends on length of course</p>	<p>Training Officers, WPOs, AWPOs, SMSS, FHAs, FAs, SFHAs.</p> <p>WPOs, AWPOs, SMSS, FHAs, SFHAs.</p> <p>SFHAs, FHAs and female TAs.</p>	<p>WPO/AWPOs at ADDs to send course time table to WPO/HQ.</p> <p>WPO to evaluate the course effectiveness and send the course time table to WPO/HQ.</p> <p>The course participants to prepare a report on what was learned.</p>

(d) FHAs teach at least 50% Agriculture in Home Economics courses

continuously

1984 and yearly (dependent on manuals, revised Syllabus and refresher courses training

1987 and onward

FHAs, SFHAs, AWPOs/WPOs

FHAs will list topics taught on reporting formats using specific codes. WPOs/AWPOs will monitor the topics taught.

20. FHAs, Female FAs to form women's groups

continually

1983 and yearly but started immediately

1987 and onwards

FHAs, SFHAs, female FAs

WPOs, AWPOs, SFHAs do follow up to make sure that the women's groups are being formed.

21. WPO/HQ and WPO/WIADP to make regular visits to ADDs, to monitor inclusion of women in ADDs' Programmes.

once a year to each ADD(2-3 days)

1983

yearly

WPO/HQ  
WPO/WIADP

WPOs/AWPOs to make sure that their ADDs are visited.

22. Recruitment of women (FHAs and Agricultural TAs) for NRC courses:

(a) as part of recruitment campaign, prepare advertisements for radio and newspapers.

(b) Notify PMS, WPOs at ADD to help recruit women.

(c) Liase with NRC officials

yearly process

1 month

as required

1983\*

1983\* and yearly

1984

\*if NRC opens in 1983.

1983\*

1983\* and yearly

onwards

WPO/HQ.

WPO/HQ, Principals of Thuchila and Colby.

PMS, PO, AWPOs

WPO/HQ to check that PMS and WPOs at ADDs have been notified.

23. Home Economics Liason Committee set up to meet with Community Development, Local Government and Health.

1 month

1983 and yearly

first meeting in 1983 and continues yearly.

WPO/HQ Coordinates with Comm. Dev. to set up meetings.

Meets as required (half yearly)

<p>24. Coordination with Community Development at ADD level:</p> <p>(a) At ADD level WPOs to contact regional Officers to set up meetings.</p> <p>(b) At RDP level, AWPO or Project Officers to contact Clerks of Council and CDAs</p> <p>(c) Seminar with FHAS and HCWs at ADD level.</p>	<p>1 month</p> <p>1 month</p> <p>2-3 days</p>	<p>1983 and regular meetings</p> <p>1983</p> <p>1983 and yearly</p>	<p>yearly</p> <p>yearly</p> <p>yearly</p>	<p>WPOs, PM, CO officers</p> <p>PO, AWPO, Clerks, CDAs</p> <p>AWPO, FHAS, SMSS, HCWs, HCWs, CDAs.</p>	<p>Submit minutes of meetings to WPO/HQ.</p> <p>Submit minutes of meetings to WPO/ADD</p> <p>Circulate Report to participants, WPO/ADD, WPO/HQ and Community Development</p>
<p>25. When Adaptive Research teams are set up in the ADDs, the WPOs will participate in the surveys.</p>	<p>1-2 weeks for each survey</p>	<p>1984, 1985, 1986, 1987 if teams begin in 1984</p>	<p>1984, 1985, 1986, 1987</p>	<p>Survey teams WPOs/AWPOs.</p>	<p>WPOs/AWPOs to monitor that women are included in interviews and trials.</p>
<p>26. <u>Appropriate Technology:</u></p> <p>(a) WPOs/HQ to contact various sectors that deal with AT within Malawi and externally. Could also request technical assistance from donors to work on appropriate technology for women.</p> <p>(b) Chitedze Maize Sheller and low cost shellers introduced by FHAS, FAs to women as a pilot project in areas where hybrid/composite maizes are grown to a significant degree.</p> <p>(c) Extension Aids make new posters and circulars showing woman using shellers.</p>	<p>2 months</p> <p>use work plan devised for Extension Management Seminar.</p> <p>1-2 weeks</p>	<p>1984 and subsequent years</p> <p>1984 and subsequent years</p> <p>1983</p>	<p>1984 and subsequent years</p> <p>1984 and subsequent years.</p> <p>1983</p>	<p>WPO/HQ, AT personnel</p> <p>Training Officers, WPOs, FHAS, FAs.</p> <p>Extension Aids</p>	<p>WPO to visit places that work on Appropriate Technologies in order to bring back suggestions.</p> <p>WPOs/AWPOs to write questionnaires on the technology being introduced and administer it to farmers to evaluate the effectiveness and adoption rate.</p> <p>WPO/HQ to make sure that the new posters have been made.</p>

27. Extension Aids/Visual Aids

(a) WPOs to monitor Audio-Visual Aids' Programmes in their IDs for inclusion of women e.g., in newsletters, posters, interviews etc.

as required

yearly

yearly

WPO/AMPOS  
Extension  
Aids  
specialists

WPO/AMPOS to make sure that the new posters have been made.

(b) Materials produced by Extension Aids to be checked for inclusion of women.

as prepared

yearly

yearly

WPOs/AC,  
WPOs in  
Blongve

WPO/AC, WPO/AMPOS to contact Officer-in-Charge of Extension Aids to preview materials

(c) Films to be prepared on women's participation in agriculture (credit, problem-solving methodology, etc.).

2 months

1985/86

1985/86

WPOs,  
Extension  
Aids crews

WPOs/AMPOS to work with Extension Aids to produce films on women's agricultural activities.

MONITORING FORM FOR WPO/HQ

YEAR \_\_\_\_\_

1. What are the ADD actions on reports/seminars for the inclusion of women in ADD Programmes?  
Which formats have they disaggregated?
2. Career structure: staff number by rank, promotions, new positions obtained, positions filled and vacant.
3. New reporting formats: Which sections are utilizing them and the outcomes of their utilization?
4. RDP proposals - List those reviewed and suggestions made including number and rank of staff positions written in. Have you had any requests from ADDs for suggestions for RDPs.
5. Which ADDs are collecting baseline data?
6. Which Evaluation Units are disaggregating their data by sex?
7. What surveys on rural women are being carried out?
8. Training for WPO/AWPOs: courses, workshops, seminars, external (where, content, participants).
9. What progress has been made on Syllabus for Farmer Training, Manuals, Food and Nutrition Sections tasks?
10. Training of FHAs/Female FAs, Male FAs - courses, workshops, seminars, (where, content, participants).
11. Training of rural women in agriculture and nutrition: Percentages and numbers trained by ADD and type of training centres.
12. Percentages of women in Farmers' clubs and credit programmes by ADD.
13. Number of women's groups and their memberships by ADD.
14. Number of visits to ADDs by WPO/HQ, purpose, and accomplishments.
15. Number of FHAs and female TAs recruited for NRC.
16. Number of meetings of Home Economics Liason Committee (HELIC). What have the ADDs accomplished in terms of coordination with other Ministries?
17. Achievements on Appropriate Technology and Extension Aids materials.
18. Number of WPOs/AWPOs who participated in Adaptive Research Programmes.

MONITORING FORM FOR WPOs/AWPOs

YEAR \_\_\_\_\_

1. Staff positions filled, promotions and vacancies.
2. Reporting formats disaggregated by ADD/RDP sections and use of these forms.
3. RDP Proposals prepared in your ADD. Suggestions you made and the WP positions written in.
4. Monitoring of section/RDP Workplans: Have targets for women farmers been set? What needs to be done?
5. What baseline data was collected?
6. What programmes or special activities are there for increasing the number of women in farmers' clubs and credit programmes? Numbers and percentages of women in clubs and credit programmes? What else needs to be done?
7. What work did you do with the Evaluation Section? And what is their progress in analyzing survey data by sex?
8. What surveys on rural women were designed and carried out?
9. WPO/AWPO Training: Courses; seminars, workshops (where held, type, content, participants).
10. FHAs/SFHAs and Female FAs: Refresher courses, seminars, workshops, (where held, type, content, participants).
11. What has been done on nutrition training?
12. Number of manuals and nutrition education packs distributed and to whom?
13. Number of women in agricultural and leadership courses by type of training centre.
14. How have FHAs and female TAs progressed in terms of teaching more agriculture to women? (Analysis of topics taught.)
15. How have FHAs and female TAs progressed in terms of group formation?
16. What was done on recruitment for NRC programmes?
17. What type of coordination was done with other Ministries?
18. What Adaptive Research surveys have you participated?
19. How has the audio-visual aids section included women farmers in their activities?
20. What appropriate technologies were introduced to women and how many adopted them?

DEPARTMENT OF AGRICULTURAL DEVELOPMENTWOMEN'S PROGRAMME POLICY

1981

The Women's Programme is essentially family oriented and meets directly with women. Its efforts are directed towards increasing food production and improving health and welfare of the family.

POLICY OBJECTIVES

1. To help the rural family increase its agricultural food production through increased extension efforts.
2. To promote better exploitation and utilization of both human and material resources available to the rural women in order to improve family health and welfare.

STRATEGIC OBJECTIVES

1. Promote food production through increased agricultural extension training.
2. Promote improved food utilization through appropriate nutrition education.
3. Promote improved food availability and quality through training in crop storage and food preservation.
4. Promote improved utilization of financial resources through consumer education (including budgeting).
5. Identify and promote appropriate income-generating activities.
6. Encourage adoption of appropriate technology in order to reduce <sup>the</sup> workload of women and to improve the quality of life.
7. Reduce <sup>the</sup> incidence of malnutrition by increased coverage in problem areas.
8. Improve the basic skills of women in the management of available resources in the home and the farm.
9. Encourage the use of work-oxen by rural women.
10. Encourage the participation of women in livestock production.

OPERATIONAL OBJECTIVES

1. FHAs to provide increased extension and training services on food production to the rural families.
2. Recruit women for general agricultural courses to attain a minimum of 30%.

3. In-service training of FHAs shall emphasize agriculture, crop storage, and food preservation components, either through a separate agricultural course or a general course dominated by Agriculture or through male Field Assistants agricultural courses.
4. Encourage increased credit uptake by women through well organized women's groups.
5. Retrain FHAs in appropriate Nutrition Education.
6. Consumer education component to be included in refresher courses for both FHAs and their trainers (supervisors).
7. Feasibility studies to identify new and appropriate income generating activities will be requested through UNDP/ILO/ECA.
8. Field staff will promote already identified appropriate income generating activities e.g., handicrafts and poultry production.
9. The appropriate technology envisaged by the Nutrition component under the support of UNICEF will be implemented.
10. An appropriate system for the follow-up of rehabilitated malnourished children will be developed in collaboration with the Ministries of Health and Housing and Community Development.
11. Adequate support material including a reference training manual will be developed to assist field staff in improving basic skills of rural women.
12. Develop an appropriate methodology of evaluating the effectiveness of Women's Programmes.
13. Develop model homes and appropriate technology structures in all training centres for demonstration to farm families especially the women folk.
14. Train women on the importance and use of work oxen at the training centres.
15. Involve women in dairy and stall feeding activities.
16. Encourage liason with other Ministries at all levels on matters relating to Women's Programmes.
17. Retrain FHAs in appropriate extension methods.
18. Encourage extension staff at all levels to work more effectively with rural women.

I. JOB DESCRIPTIONS FOR MOA  
WOMEN'S PROGRAMMES STAFF

A. WOMEN'S PROGRAMMES OFFICER/HQ

Responsibilities

To be responsible to the CAO for:

1. The planning, execution and evaluation of an agricultural development programmes for rural women.
2. The preparation and execution of in-service training programmes for staff at all levels involved in the agricultural development of rural women.
3. The coordination with other branches of the MOA and organizations.
4. The participation in the preparation of project proposals.

Duties

1. The overall supervision of the Women's Programmes staff.
2. Liason with the staff of the University of Malawi, Natural Resources College and other institutions involved in the preservice training of agricultural staff to ensure the proper training of Women's Programmes staff.
3. Organisation of in-service training for Women's Programmes either separately or integrated with other programmes.
4. Liason with other branches of the Ministry of Agriculture the Department of Community Services and other organizations on their programmes for women.
5. Monitor and evaluate women's participation in the various ADD programmes.
6. Work with Planning Division to insure the inclusion of women in proposals and planning documents.
7. Cooperate and help prepare with the Extension Aids Branch materials for radio, cine films and publications in support of Women's Programmes.
8. Assist with the recruitment of candidates for Agricultural TA and FHA training.
9. Submit reports on all activities of the section to Chief Agriculture Officer.

B. WOMEN'S PROGRAMMES OFFICER (PO/CTO/STO)

Responsibilities:

Responsible to the Programme Manager in an Agricultural Development Division (ADD) for:

1. Developing and executing a sound extension and training programme for rural women in order to foster agricultural production, better family health, home improvement and welfare.
2. Planning and/or conducting in-service training for Farm Home Assistants in the A.D.D.
3. Participating in planning long and short term project proposals to ensure the inclusion of rural women.
4. Coordinating with other sections and organizations on programmes for rural women.

Duties:

1. Develop appropriate agricultural courses for the training of rural women in the ADD in line with Women's Programmes' policy.
2. Plan and coordinate programmes where women are involved with subject matter specialists and other Women's Programmes Officers.
3. Monitor and evaluate rural women's participation in the various sections' programmes.
4. Provide technical advice on women in development to the ADD.
5. Supervise the Women's Programmes staff at all levels in that ADD.
6. Work with other sections to prepare strategies and action programmes that can be used for preparing planning documents.
7. Provide in-service training for Women's Programmes staff either separately or as part of overall staff training.
8. Coordinate with the Women's Programmes Officer at Ministry Headquarters, as well as other related organizations.
9. Assist in recruitment of candidates for the field assistants and FHAs training.
10. Submit reports on all the activities of the section to the Programme Manager and the Chief Agricultural Officer.

C. ASSISTANT WOMEN'S PROGRAMMES OFFICER (T.O)

Responsibilities:

Responsible to the project officer in a rural development project (RDP) for:

1. Developing and executing a sound extension and training programme for rural women in order to foster agricultural production, better family health, home improvement and welfare within the project area.
2. Planning and conducting in-service training for Women's Programmes' staff either separately or as part of overall project staff training.
3. Providing information that can be used in project planning.
4. Coordinating with other organizations on matters concerning Women's Programmes.

Duties:

1. Coordinate with Development Officers, Principals of RTCs/ Farm Institutes in planning training courses for rural women in line with the Women's Programmes policy.
2. Liase with the subject matter specialists and development officers to plan for action strategies for the inclusion of rural women into their programmes.
3. Where appropriate, integrate FHAs into courses for Field Assistants at project level.
4. Collect information on the participation of women in project activities.
5. Supervise and provide technical support to all the FHAs in the project.
6. Supply and maintain equipment and materials for women's training programmes.
7. Assist in the recruitment of candidates for the field assistants and FHAs' training.
8. Coordinate with the Women's Programmes Officer at ADD level as well as with related organizations in the project area.
9. Submit reports on all activities of the Women's Programmes to the project officer.

D. SENIOR FARM HOME ASSISTANT (STA).

Responsibilities:

Responsible for the Project Officer in a rural development project (RDP) for:

1. Supervising Farm Home Assistants in the project.
2. Monitoring and coordinating Farm Home Assistants' activities and women's participation in the project.
3. Providing advice on development of work plans to Farm Home Assistants.
4. Teaching rural people, especially women, about agricultural production and food utilization and seeing that FHAs focus on these topics.

Duties:

1. Maintain regular contact with the Farm Home Assistants (FHAs).
2. Supervise the FHAs in the proper maintenance and care of equipment and materials.
3. Collect information from Development Officers (DOs) on women's participation in extension and training activities.
4. Monitor the training courses for women at EPA level (DTCs and RTCs), so that they include more agricultural topics according to the policy.
5. Coordinate the work of FHAs in the project area.
6. Assist FHAs in developing appropriate work plans with actions and strategies relevant to the needs of rural women.
7. Monitor work plans of FHAs and especially their women's groups' activities.
8. Submit reports on all activities of the Women's Programmes to the Project Officer.
9. Work in cooperation with other related field staff involved with Women's Programmes at project level.

## E. FARM HOME ASSISTANTS (TAs)

### Responsibilities:

Responsible to the Development Officer for those in an area controlled by a DO and to the Principal for those at a Residential Training Centre (RTC) or Farm Institute (FI) on the following:

1. Assist D.O. or Principal in organizing and implementing agriculture and home economics programmes within the context of Women's Programmes.
2. Teach rural people, especially women, about agricultural production and food utilization at or outside the training centre (village groups).
3. Liase with other field workers involved in Women's Programmes.
4. Maintain and account for all stores and equipment used by the Farm Home Assistants (FHAs) in teaching both Agriculture and Home Economics subjects.

### Duties:

1. Assist D.O. or Principal in preparing an Agricultural and Home Economics course programme.
2. Make follow-ups into the villages to encourage women to adopt acquired skills.
3. Initiate formation of local women's groups through which improved methods of agriculture and home economics can be spread.
4. Liase with other local development committees concerned with the promotion of good family living when developing an extension programme.
5. Work in cooperation with other related field staff involved with women's programmes in the same area.
6. Maintain proper records of stores, equipment and publications entrusted to her charge.
7. Develop and submit work plans on Women's Programmes to the D.O., Principal and others superiors.
8. Advise on the hygienic preparation of meals in the kitchens of training centres. Besides, advise or control the composition of the diet provided in consultation with immediate superior.
9. Assist in the collection of data which monitor and evaluate rural women's participation in extension and training activities.
10. Submit reports on all activities of Women's Programmes to the D.O. or Principal.

II. JOB DESCRIPTION FOR HOMECRAFT WORKERS EMPLOYED BY A LOCAL AUTHORITY

1. To provide a homecraft programme for women's groups in a specific area defined by her local authority.
2. To organize and mount courses for these groups, following lesson outlines provided by the Ministry of Community Development.
3. To set a good example in her own home, demonstrating home-improvement projects, higher standards of child care, improved health practices, and better food and clothing for members of her family.
4. To encourage home improvement projects, and respond to individual families' requests for advice.
5. To co-operate with other workers in her area, giving public talks and demonstrations in homecraft subjects when appropriate.
6. To work under the technical supervision of District Community Development staff, regarding the selection of homecraft subject matter, formation of groups, planning her work programme, and keeping records.
7. To submit such reports to the Clerk of her local authority (employing agency) <sup>and</sup> to the District Community Development Officer and keep careful records of her activities of each group.
8. To be responsible for homecraft equipment, materials and publications allocated to her by the local authority.

JOB DESCRIPTION FOR THE FEMALE  
COMMUNITY DEVELOPMENT ASSISTANT (CDA)

1. Under the supervision of the District Community Development Officer to be responsible for planning, monitoring, organising and controlling Homecraft Programmes in the District/Area.
2. To supervise and co-ordinate the work of Homecraft workers in her District/Area.
3. To organize her own Homecraft groups and mount Home management courses at District level.
4. To maintain records of all Home Economics equipment allocated to her District/Area.
5. To maintain records of all Homecraft groups carried out in her District/Area.
6. To organize, supervise, and train Adult Literacy Volunteer teachers and Community Members for the Adult Literacy Programme and maintain records thereof.
7. To set a good example in her own home, demonstrating home improvement, improved health practices, and better Food and Clothing for members of her family.
8. To co-operate with other workers in her area, giving public talks and demonstrations in Homecraft subjects when appropriate.
9. To conduct fact-finding of women's needs in her work area.
10. To undertake any other duties that may be assigned to her from time to time, by the District Community Development Officer.

ANNEX 3:- REPORTING FORMATS

WPO/AWPO MONTHLY REPORT -- Page 1

1. Name \_\_\_\_\_ Month \_\_\_\_\_
2. ADD/Project \_\_\_\_\_
3. Number of DTCs \_\_\_\_\_ Number RTCs \_\_\_\_\_
4. Staff and groups \_\_\_\_\_

	AWPO	SFHA	FHA	TA	DA	MOA HCW	Local Govt. HCW	CDAS	MCHA	Other
Number										
Number visited										
Number groups										
Number members										

5. Residential Training Centre (Name) \_\_\_\_\_

	Attend- ance	Topics Taught by FHAs
Non-agriculture		
Men-Nutrition		
Women-Agriculture		
Women-Home Econ.		

6. Day Training Centre

CENTRE	Attendance				Topics Taught by FHAs
	Men Ag.	Men Nutri.	Women Ag.	Women H.Ec.	
					M
					W
					M
					W
					M
					W
					M
					W
					M
					W
					M
					W
					M
					W
					M
					W
					M
					W
					M
					W
TOTAL					

7. FHAS' Extension Contacts	Number of women Contacted	Topics
Demonstrations		
Clinics/Dispensaries		
Village Visits		
Other (specify)		

8. Staff:      Transfers \_\_\_\_\_  
                     Leave            \_\_\_\_\_  
                     Resignations \_\_\_\_\_

9. Liason with other Sections \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

10. Coordination (seminars, meetings, committees)  
 \_\_\_\_\_  
 \_\_\_\_\_

11. Staff Training

Type of Course	Participants	Place	Date	Contents

12. Problems encountered \_\_\_\_\_  
 \_\_\_\_\_

13. Visitors to WPO/AWPO \_\_\_\_\_  
 \_\_\_\_\_

14. General Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



7. Clubs and Credit

	Clubs	Seasonal Credit	Medium Term	Work Oxen	Stall Feeders	Dairy	Other
Number							
Number Men							
Number Women							
% Women							

8. FHA Extension Contacts

	Number Women Contacted	Topics
Demonstrations Conducted		
Clinics/Dispensaries		
Village Visits		
Other		

9. Staff: Transfers

Leave

Resignations

10. Liason with other sections and SMS

Sections	Topics	Results

11. Coordination (seminars, meetings conducted, committees formed, etc)


12. Staff Training - FHAs, TAs, etc.

Type of course	Participants	Place	Dates	Contents

13. Own Training

Type	Place	Dates	Contents

14. Fact-finding/Baseline data/Evaluations/Surveys (indicated reports and actions taken).

---

---

---

---

15. Accomplishments and failures in relation to work plans

---

---

---

---

16. Visitors to WFO

---

---

---

---

17. Problems Encountered

---

---

---

---

19. General Comments

---

---

---

---

---

---

SFHA/AMPO (Half yearly Report)

Name \_\_\_\_\_

ADD/Project \_\_\_\_\_

From \_\_\_\_\_ to \_\_\_\_\_ 19 \_\_\_\_\_

GROUPS FORMED BY FHAs

Name of FHA	Group Number	Total Members	Activities
	1		
	2		
	3		
	4		
	1		
	2		
	3		
	4		
	1		
	2		
	3		
	4		
	1		
	2		
	3		
	4		
	1		
	2		
	3		
	4		
	1		
	2		
	3		
	4		

For 19 Name Project Centre/EPA

1. Residential Training Courses

Course Dates	Number Days	Number		Total	Type of Course		Topics Taught (codes)
		Women	Men		Women	Men	
							W
							M
							W
							M
							W
							M
							W
							M
							W
							M

2. Day Courses in Groups

Course Started	Number Registered			Actual Attendance in weeks				Topics Taught (codes)
	Women	Men	Total	1	2	3	4	
				W/M	W/M	W/M	W/M	
				/	/	/	/	W
				/	/	/	/	M
				/	/	/	/	W
				/	/	/	/	M
				/	/	/	/	W
				/	/	/	/	M
				/	/	/	/	W
				/	/	/	/	M

Annex 3-7

3. Information about groups formed

Name of Group	Number Members	Day	Place	Distance	Group Activities (IGAs, Credit, etc.)

4. Day Courses Not in Groups: Participation

Date	Number		Total	Number Hours	Place	Teacher	Topics Taught
	Women	Men					

5. Extension

	No. Women Contacted	Topics Taught/Types of demonstrations
Number villages visited		
Number of demonstrations conducted		
Number of hours at Clinic/Dispensary		
Other (Specify)		

Annex 13-18

6. Your participation in training courses, meetings, activities with other extension staff

Type of Course/ meetings/tours	Dates	Place	Content/Subject Matter

7. Agricultural Operations taking place at Centre and relation to your teaching

Annex 3-9

8. Comments on Condition of equipment

9. Accomplishments and failures in relation to your work plan

10. Special problems/activities

FROM \_\_\_\_\_ to \_\_\_\_\_ 19 \_\_\_\_\_

Project \_\_\_\_\_

Name \_\_\_\_\_ Centre/EPA \_\_\_\_\_

1. Course Taught - DTCs

Month	Number Courses	Number		No. Days		Targets		Topics taught
		Women	Men	Women	Men	Women	Men	
								W
								M
								W
								M
								W
								M
								W
								M
								W
								M
								W
								M

2. Courses Taught - RTCs Name of RTC \_\_\_\_\_

Month	Number Courses	Number		No. Days		Targets		Topics Taught
		Women	Men	Women	Men	Women	Men	
								W
								M
								W
								M
								W
								M
								W
								M
								W
								M
								W
								M

3. Groups

Name	Number Members	A C T I V I T I E S
1		
2		
3		
4		
5		

4. Day Courses not Groups

Month	Number		Total hours	T O P I C S
	Women	Men		
				W
				M
				W
				M
				W
				M
				W
				M
				W
				M

5. Extension Contacts

	Number Women Contacted	Topics Taught/Types of Demonstrations
Number villages visited		
Number of Demonstrations conducted		
Number of hours at Clinic/Dispensary		

6. Participation in training courses

Dates	Type	Place	Contents

7. Coordination with HCWs, other extension workers

\_\_\_\_\_

8. Comments and Problems

\_\_\_\_\_

PROBLEM SOLVING EXTENSION METHODOLOGY\*  
PRINCIPAL STEPS IN OVERCOMING PROBLEMS THROUGH  
DISCUSSION WITH FARMERS

I. WHAT IS THE PROBLEM?

- (LOOK)
- (a) What are the problems?
    - farmers present problems.
    - staff take up leads
    - staff pose problems.
  - (b) Priorities  
FOR EACH PROBLEM
  - (c) Why is it a problem?
  - (d) What effects does it have on people?
  - (e) Is a common problem?

II. WHAT CAN BE DONE?

- (THINK)
- (a) Discuss possible ways of overcoming the problem.
    - people present ideas.
    - staff to give ideas
  - (b) Decide what would be realistically and practically possible within the range of the majority of people.

III. HOW CAN IT BE DONE?

(PLAN CHANGE)

- (a) Decide what has to be done.
- (b) Decide how it is to be done.
- (c) What is needed?
  - materials
  - services
  - training - what needs to be learnt?
    - where - DTC? - Village?
    - who?
    - what demonstrations are needed?
- (d) What problems are likely to be encountered?

IV. IMPLEMENTATION:

Undertake Plan of activity.

---

\*From J. Evans "Women's Involvement in the Seasonal Credit Programme in the Phalombe Rural Development Project", Paper presented at the National Credit Seminar in Chintcheche. February, 1983.

EVALUATIONS OF WOMEN'S PROGRAMMES

A variety of reports and evaluations of Women's Programmes in Malawi have been carried out over the years (Engberg 1968, Montgomery 1970, van Schelven 1975, Butler 1976, Williams 1981, Hirschmann 1981a, 1981b). According to Engberg (1968) government supported Women's Programmes originated with the Ministry of Education Social Development Department in 1963. Montgomery requested the services of a Home Economist from FAO to advise on the training HCWs and establish training centres for women. Previously, in the 1950s there were about 120 Women's Institute Clubs "under the sponsorship of an early Social Development Department" (Engberg 1968:3). Homecraft Instructresses (HCIs) for the clubs received training at the School of Local Administration and Social Development at Mpemba and later (1962) at Zomba Homecraft Training Centre. Community Development Department programmes of male and female workers (subsequently CDAs) and the homecraft programmes began in 1964 and graduates were posted to the rural areas. The emphasis of the homecraft programme was on 3 types of courses: "Better Health in the Home", "Child Care", and "Clothing for the Family". In 1967 Agriculture employed some homecraft workers to teach farmers' wives at rural training centres and farm institutes.

Engberg's report recommended that:

- women's contribution to agricultural labour be studied;
- there be coordination with Community Development so the various programmes support each other;
- there be long term plans for including more women in the extension service;
- home economics courses be part of training at all levels;
- a nutrition programme be incorporated into the total programme;
- one or two FAO home economics experts assist in the home economics programmes in Agriculture.

van Schelven worked as the FAO technical assistant from 1968 to 1975. Her final report (1975) noted that Thuchila first graduated FHAs\* in 1969 and that by 1974, 101 FHAs were trained and 74 were in posts. The report mentioned that in 1968, a Home Economics Liason Committee (HELC) was formed. Meetings of the HELC in 1971 with Agriculture and Community Development failed to reach agreement on a National Training Centre for Home Economics which was recommended in the report by Montgomery in 1970. The report pointed out that a 1968 Malawi Government Directory listed Community Development as "being responsible for all home economics activities such as housing

\* FHAs were originally called Farm Home Instructresses.

and home improvement, food and nutrition, textiles and clothes". But this was misleading, "because a number of Ministries and Voluntary Agencies were doing Home Economics Programmes" (van Schelven 1975:16).

Van Schelven and Engberg reviewed all home economics programmes. The Ministry of Education taught home economics in primary and secondary schools and home economics was part of the curriculum at teacher training colleges. Also, Chancellor College offered home economics and diplomates could teach the subject up to MCE level. Both also pointed to Ministry of Health Programmes on child care, home improvement, hygiene, etc. taught by health assistants. Similarly, the reports noted that Malawi Young Pioneers provided training in homecraft and several graduates had undergone the PHA courses so as to teach at the bases. Some of van Schelven recommendations were that the HELC or some similar committee coordinate women's programmes in the country; female extension workers training should be upgraded; home economics programmes should be defined more precisely in order to avoid duplication of efforts; research should be carried out on rural social patterns to serve as guidelines for developing home economics plans; and evaluations should be undertaken at regular intervals.

In 1975-76 an overall evaluation of Women's Programmes in Malawi was undertaken under the auspices of UNICEF on behalf of the Ministries of Agriculture and Natural Resources, Community Development and Social Welfare, Local Government and Health (Butler 1976). The evaluation focused on home economics and related programmes as the main national objectives for the training of women. The report provided brief background information on WP from 1950-1975. Data for the evaluation was collected through interviews and discussion with key personnel in the Ministries and in the field, observation of activities, and analysis of records.

Home Economics was seen by the Ministries in the following ways:

Community Development "a tool whereby local level women are trained in leadership and self-help activities oriented towards improved home and community life" (Butler 1976:9)

Local Government similar to Community Development with the aim of providing "non-intensive practical training to the masses" (Butler 1976:9).

Agriculture training in home economics as it relates to agriculture: "stress is placed upon family food production, consumption and distribution, family nutrition and health education and home improvement" (Butler 1976:9).

Health: "to teach home economics as it relates to child health...by concentrating on disease prevention and control, family nutrition, hygiene, sanitation and home management" (Butler 1976:9).

The training and job descriptions of various types of workers from each Ministry were given as well as the number of personnel by rank and region. Curriculum at the various training institutions were given by subject and percentage of hours (See Table Annex 5-1).

The evaluation argued that:

1. All basic and up-grading of all home economics and health field staff be carried out in one site.
2. CDAs needed a curriculum more like FHAs i.e., more applied sciences and teaching techniques and less theoretical community organization and human behaviour.
3. HCWs needed a one year course with more practical skills in agriculture and home making to rural women and less emphasis on sewing and handicrafts.
4. Since the health homecraft worker was trained at Thuchila with a curriculum similar to FHAs but with health subjects added, it was suggested that "the job description be reviewed and narrowed so that there is less potential of overlap with the FHI role" (Butler 1976:20).

The report discussed the field programmes of the various Ministries. The popularity of FHAs and the large number of women who had taken home economics classes at training centres (307,798 between 1966 and 1975) were noted. Rural women were interested in "fun" subjects (handicrafts and sewing) and less interested in "mundane" topics (food production, home sanitation and child health), but FHAs aimed at a reasonable balance. The "competition and jealousy in the field between workers in various Ministries was noted. All workers seemed to feel the other was "stealing her woman", and as a result, there was very little overall cooperation" (Butler, 1976:24). The report noted that rural women saw little difference between the various workers and complain when lessons were too simple, when staff "looked down on them", or when lessons involve materials they could afford.

Concerning the FHAs the evaluator suggested that:

1. Women's classes be organized across Ministries by progressive skill levels (Beginners and Intermediates taught in villages and Day Training Centres; Seniors taught at Residential Training Centres; and Advanced taught in Farm Institutes or Community Development Training Colleges).
2. FHAs be more involved in selecting women for residential courses.
3. FHAs needed more supervision and the monthly report system needed improvement in terms of planning activities, follow-up and home visits.

4. FHAs should teach more agriculture and less time should be spent in home economics and travelling.

5. Women's groups should be encouraged to function independently of the FHAs after their basic training.

Considering CDAs and HCWs, the evaluator suggested that:

1. CDAs needed some promotions and rewards to motivate them. A supervisory position (STA grade) should be established.
2. CDAs needed more advanced home economics to teach wives of local leaders and civil servants but in the rural areas they should focus more on food production, preservation and storage, family health, sanitation and nutrition. Less attention should be given to baking and icing cakes and only with selected groups should so much time be spent on embroidery, crocheting, cushion-making and the like.
3. The reporting system of CDAs needed review and guidance was needed on time allocation.
4. The focus on training "for women who are leaders, wives of leaders, civil servants and others associated with responsible training" required a more "modern" type of home economics" (Butler: 1976 28).
5. HCWs were widely dispersed and needed better supervision by CDAs or local Government.
6. HCWs should be merged with FHAs and employed, supervised and administered by the Ministry of Agriculture.
7. HCWs needed to teach more food production and should have their own model gardens.

In considering equipment, supplies and facilities, the report noted that:

1. Community Development workers used agricultural training centres for women's training.
2. Agricultural training centres should be set up with demonstration kitchen (mud stove and shelves), pit latrine, rubbish pit, suntable and soak pit, vegetable garden and compost heap, chicken and rabbit units.
3. Supervisory staff needed better transport.

In sum, the evaluation report recommended reorganization of WP across Ministries intensifying and merging training of field staff, greater supervision of field staff, greater emphasis by WP on food production, preservation and storage and public health and child care, and an organized plan for continuing evaluations of all WP.

In particular the report recommended the established of "National Women's Programmes Administration Unit" located in the

Office of the President and Cabinet with advisory links to relevant Ministries and organizations, University of Malawi Home Economics Department, and the Nutrition Studies Unit. Alternative structures for training and administering field staff were proposed with either three, two or one Ministry being responsible. In the "three Ministry solution", one Ministry would provide technical training, another "administrative leadership for field implementation", the third special programmes aimed at mother-child public health education. The "two Ministry solution" had one Ministry providing training while the other administered. The "one Ministry solution" would create a single Ministry of Women's Affairs, or put all workers in Agriculture or Community Development. Other suggestions were concerned with incentives and career structure, coordination across Ministries for location and placement of staff, and providing male field workers with orientation about women's training programmes.

Williams (1981), who was director of the Centre for Social Research, University of Malawi, was requested by Community Development and UNICEF to evaluate UNICEF-assisted Women's Programmes in Malawi. Specifically, the performance of the female Community Assistants and Homecraft Workers were evaluated. Table (5-2) shows the number of HCWs and CDAs trained, and employed by Local Government and Community Development. The drop-out rate for HCWs is high 51.6%. Rates for CDAs are lower and averaged 33.3%, but many who left employment in Community Development were employed in other Ministries or private social service agencies.

In terms of recruitment, Williams mentioned that some HCWs were not interested in the work but simply sought employment. He suggested that a detailed interview and probationary pre-training experience should be used to screen candidates. Recruitment of well qualified CDAs functioned well, but their numbers are too few. It was suggested that more fact-finding on recruitment be carried out.

Training of HCWs increased from 3 to 6 months in 1980 but the syllabus did not change very much. Williams noted that too much emphasis was still being placed on sewing and handicrafts whereas food production, storage and preparation as well as family health and sanitation needed more emphasis.

Williams argued that training for CDAs might need upgrading to match the increased training of HCWs. Furthermore, the curriculum should be rethought and more emphasis placed on practical field teaching techniques, supervision and personnel management, agriculture and applied sciences such as nutrition. He noted that national in-service training of HCWs and CDAs was infrequent and too brief. HCWs lacked a career structure and the new status of HCW - grade II was proposed. The field programmes generally lacked materials and although the HCWs tried to raise small sums from class participants, these were often inadequate. It was suggested that town or city councils provide each HCW with K60-K80/year to purchase materials. Other items of note in the report was the need to provide good housing, move HCWs about every two years to provide new clientele and show that officials are concerned about HCWs' needs and improvement of record keeping and supervision. The problems in structuring the 10 month course to rural women could be relieved by shorter course e.g., three months on one topic or by preparing courses which sequential in difficulty.

Willians remarked that cooperation with other Ministries training programmes (i.e., with FWAs and MCHAs) would be desirable and he too suggested either one training site be used (Natural Resources College or Magomero) or that each of the three Ministries specialize in one aspect of training:

- Agriculture: agriculture, home economics and health related subjects.
- Community Development: local leadership development, literacy, home management, advanced home economics, home economics and home management for non-traditional women.
- Health: mother-child education.

Hirschmann (1981a, 1981b) was commissioned by the United Nations' Economics Commission for Africa to do an 8 month study on National Development Policy and Women. The Ministry of Community Development and Housing acted as the link Ministry. Hirschmann reported on background and planning documents, interviewed people in government departments at Ministerial, regional and district Development Committees, Clerks of Local Councils and District Commissioners, and interviewed women farmers in the Zomba area.

Hirschmann noted that His Excellency the Life President of Malawi, Dr. H. Kamuzu Banda, "has gone to considerable lengths to include women in the political process and has expressed his strong support for enhancing the status of women in society" (1981b:7). However, in the Central Ministries where women could play a part, they had little or no representation. The author noted that in Ministries which have planning units there were no sections which dealt with women's issues.

Concerning Home Economics and District Councils, the report states:

"The Clerks see the Women as most interested in Home Economics, whereas the women do not mention this as an interest at all. This does suggest that the great interest men always say women have in Home Economics is as much (or more) a result of men's own lack of interest in the subject and of their stereotyping of women, as a real interest of the women. It is also interesting that Clerks see women as having no interest in finance, whereas the women themselves place finance among their main interests" (1981b:16-17, emphasis added).

and again in another paper by Hirschmann this point is reiterated:

"Men credit women with an infatuation with home economics which is not only of doubtful validity but also had harmful policy implications" (1981a:4 emphasis added).

Hirschmann showed that in the nation's major planning documents women received very little attention and "what references to them exist is limited almost entirely to home economics and health" (1981b:29). Hirschmann considered the

policies of the various Ministries. In Agriculture, he noted that everyone agreed that women made great contributions to agricultural production, but very little information on women in agriculture was being collected or studied. Hirschmann discussed the change from Home Economics to Women's Programmes which was in process at the time.

In terms of Agriculture, Hirschmann recommended that there be (1) greater inclusion of women into extension services, (2) an assessment impact on women be made before RDPS were approved, (3) some women were needed in the Planning Division, (4) ADD Evaluation Units should collect and analyze data on women, and (5) Extension Aids material should show women participating in agriculture in a positive light.

Development Division, Economic Planning Division, and Rural Development Division of the Office of the President and Cabinet had no policy at all on women. Hirschmann argued that (1) the effect of this non-policy was to leave it up to individual Ministries themselves to determine policy, and (2) agencies responsible for research, generation of data and evaluation are "under no pressure from central economics/planners to furnish and analyze information about women" (1981b:37).

The Ministry of Education policy objectives were to increase the number of girls in primary and secondary schools. In secondary schools the policy is that 1/3 of all places are to be taken by girls (the realities is that only 29% of places were taken by girls in 1980-81\*).

Hirschmann noted that the Ministries which are responsible for training women in Home Economics needed more coordination at Ministerial and District levels and that the homecraft programmes needed rethinking. Basic questions needed to be asked "about the influence the programme had on stereotyping women as home-makers and restricting their learning experiences to this field; and its effects on diverting women (trainers and trainees) from other activities" (1981b:39-40).

Recommendations specific to other Ministries and agencies included the need to have a coordinating committee on women's affairs and for NSO to collect and disaggregate data by sex.

The most recent evaluation report is by Msukwa (1982) who evaluated the newly created Home Management Courses Programme funded by UNICEF. This programme aimed "to impart home management knowledge and skills to local women leaders who, in turn will impart the knowledge and skills gained to other women in their respective areas" (1982:1). However, the course content aimed at home economics subjects primarily rather than on leadership. Topics were on foods and nutrition (60 hours), home improvement (60 hours), and child care (33 hours). Minor topics were health (10 hours), Agriculture (7 hours), Etiquette (5 hours) and Educational Visits (4 hours) were the planned content. In reality, the average time allocation was Textiles and Clothing (22.6%), Foods and Nutrition (23.1%), Home Improvement (23.6%) Child-care (22.1%), Health and Sanitation (1%) and others (7.7%). Most time was spent on sewing cushions, decorating baskets and making twine baskets. The participants were mostly wives of paid employees (79.2%) as it was necessary to be able to purchase

\*M.G. Nyirongo, "Economic Development Activities and How they Reflect Women's Needs and Priorities" Paper presented at the Seminar on National Mechanisms on the Integration of Women in Development Lilongwe, Malawi. September 28-October 1, 1982 p.9.

K30.00 of materials to attend. HCWs were used as teachers and CDAs helped in the organizations. The author concludes that these participants found the course useful, but most did not go on to impart the skills to others.

#### SUMMARY OF EVALUATION

All evaluation reports except Hirschmann make the assumption that home economics is the proper training for women in Malawi. Butler and Williams argue that more practical information in food production should be taught to FHAs and HCWs who in turn should adjust their teaching to include more of these topics. All note that supervision and reporting of FHAs and HCWs were inadequate. Lack of career structure for women (HCWs and FHAs) was mentioned by Butler, Williams and Hirschmann.

All reports discuss the problem of coordination between the four Ministries/Departments (Agriculture, Community Development, Health, Local Government) in terms of training, and field programmes.

In terms of training various proposals are offered:

1. One training site, possibly Magomero or Natural Resources College.
2. Each Ministry responsible for a particular type of training.

Field Programmes should be better coordinated and suggestions included:

1. A single Ministry of Women's Affairs.
2. One Ministry providing training while another administered the field programme.
3. A coordinating body on women's affairs to oversee programmes.

However, in spite of all these evaluations and their recommendations, coordination remained at a minimum and many of the recommendations have not been carried out.

TABLE Annex 5-1

CURRICULUM FOR FEMALE WORKERS BY MINISTRY AS OF 1975\*

SUBJECT	AGRICULTURE		COMMUNITY DEVELOPMENT			HEALTH
	FHAs (Thuchila)	FAs (Colby)	HCWs (Magomero)	CDAs (Magomero)	Social Welfare Upgrading Course	Homecraft (Thuchila)
Home Economics	37%	15%	76%	45%		37%
Agriculture	22%	33%	6%	11%		22%
Basic Subjects	16%	20%	10%	19%	16%	16%
Field Methods/ Practice	25%	32%	9%	25%		25%
Government					16%	
Community Develop- ment (including home economic)					24%	
Social Welfare					24%	
Revision/Visits					12%	
Health						Additional Health Course
TOTAL	100%	100%	100%	100%	100%	100%

\*Adapted from Appendix D, Tables 1-6. (Butler:1976)

Table Annex 5-2

HCWs AND CDAs TRAINED AND STILL WORKING FOR COMMUNITY DEVELOPMENT 1980\* AND FHAs  
TRAINED AND STILL WORKING FOR AGRICULTURE (1982/83)

Number of HCWs trained at Magomero (1967-October 1980)	1,094	Number FHAs trained at Thuchila (1969-83)	291
Number of HCWs still working for Community Development	529	Number of FHAs still working for MOA	161
Loss of trained HCWs	565	Loss of FHAs	
% Loss	51.6%	% Loss	45.0%
	Male	Female	Total
Number of CDAs trained at Magomero (Feb. 1966-March 1980)	128	82	210
Number of CDAs still working for Community Development	87	53	140
Loss of trained CDAs	41	29	70
% Loss	33.6%	36.6%	33.3%

\*Adapted from Williams' Charts A and F (1981:6 and 9)  
Annex 5-9

R E F E R E N C E S

Butler, Lorna M

- 1976 "Report to the Government of Malawi on An Evaluation Study of Women's Programmes in Malawi in the Ministry of Agriculture and Natural Resources, Ministry of Community Development and Social Welfare, Ministry of Local Government, Ministry of Health October 1975-January 1976. Ms.

Engberg, Lila

- 1968 Report to the Government of Malawi on Development of Programmes for Women in Community Development and Extension, CEP Report No. 50, Rome, FAO

Hirschmann, David

- 1981a "Experts and Expe<sub>3</sub>rtees" Consulting on Women in Malawi". Chancellor College, Staff Seminar Paper No. 17. Ms. 9 pp.
- 1981b "Women, Planning and Policy in Malawi" UN Economic Commission for Africa. Ms. 65pp.

Montigomer.y, Wanda

- 1970 "Proposal for a National Centre for Home Economics Training" prepared for Home Economics Liason Committee) mimeo 4pp.

Msukwa, L.A.H.

- 1972 "The Home Management Course Programme: An Evaluation Report" Zomba, University of Malawi, Centre for Social Research 47pp.

Williams, Bruce

- 1981 "UNICEF - Assisted Women's Programs in Malawi: An Evaluation and Summary of Findings on the Homecraft Workers' Program and Female Community Development Assistants Program". Centre for Social Research, University of Malawi. 43pp.

van Schelven, Cornelia

- 1975 Final Report from F.A.O. Home Economist, Malawi 1968-1975. First Draft Nov. 27, Ms.

SPECIFIC STUDIES OF FARM HOME ASSISTANTS

Beck, (1981) a Peace Corps Volunteer stationed at Thuchila Farm Institute, interviewed 74 FHAs around the country in 1980. The interviews showed most FHAs concentrated on home economics. Few taught crop husbandry, farm accounts, soil and water conservation and many had forgotten the topics. FHAs do teach vegetable and poultry production but they needed to have better demonstrations. She noted that FHAs needed to take into account the rural women's production priorities rather than the preparation of cakes and making of plastic purses. Also, FHAs said that rural women preferred the "fun classes" of needlework, cookery and handicrafts but Beck noted that the FHAs' presentation of the subject helped to make courses fun. Problems of lack of adequate supervision, money for materials, promotions, and adequate work plans were mentioned.

The FHIs in the RTCs and Farm Institutes mentioned that most of the agricultural teaching (Crop Production, Soil Conservation, etc.) was allocated to the male technical staff. They taught home economics with poultry and horticulture (Fruit and Vegetable Production). The Table shows that most of the FHIs (35%) taught home economics, poultry and horticulture followed by those (31%) who taught these subjects plus one or two other agricultural topics.

TABLE Annex 6-1

SUBJECTS TAUGHT BY FARM HOME ASSISTANTS AT TRAINING CENTRES AND WOMEN'S GROUPS, 1980/81\*

SUBJECT	Number of FHAs	Percentage
Home Economics, Poultry and Vegetable Production	25	35%
Home Economics Only	4	6%
Home Economics, Poultry, Vegetable Production and Other Agricultural Subjects	22	31%
Home Economics and Poultry Production	3	4%
Home Economics and Horticulture (Vegetable Production)	13	18%
Home Economics, Poultry Production and Other Agricultural Topics	1	2%
Home Economics, Vegetable Production and Other Agricultural Topics	3	4%
TOTAL	71	100%

\*Tabulated from Beck's interviews.

## WIADP STUDY OF FHAs - NO. 1\*

A study of 60 participants at the 1981 National Refresher Course at Likuni (45 FHAs, 10 TAs and 5 DAs) for female extension workers was carried out by Spring in 1981. The policy of increasing agricultural training to promote food production influenced the topics presented at the course. The survey focused on the education and training of FHAs, their general knowledge of agricultural topics, participation in farming, perceived level of competency and interest in agriculture. The aim of the survey was to make some estimation of FHAs' interests, training, and knowledge of home economics and agricultural topics in order to make suggestions for future training and refresher courses.

### Results of the Study

When queried about courses they wanted to attend in the future, seventeen preferred both home economics and agricultural topics, as compared with six interested in home economics and two interested in agriculture exclusively. The primary interest in home economics was sewing especially free form cutting. In agriculture a number of women remarked on the new emphasis on agriculture. One said, "At first, we thought that agriculture was for men, not for us, so we had no knowledge of some of the topics, but I like it and want to tell my friends". Several said they wanted to learn general agriculture since they were now expected to take more time on this topic and the training they received at Thuchila was insufficient. Some women mentioned their desire to learn more about specific crops and animal husbandry. One FHA said that refresher courses should be based entirely on agriculture. "We have enough in home economics but not enough in agriculture. We don't have enough confidence to teach agriculture and we need more training". She noted that not all FHAs were interested in learning about agriculture.

When asked what they liked about home economics, the majority preferred cooking and sewing with home improvement, child care and nutrition and health receiving less interest. There was a big discussion during the course concerning the three food groups as being an over-simplified approach to nutrition and the need for further training to reorient people to a more sophisticated approach. Most FHAs did not dislike any home economics topics but a few mentioned that they did not like to teach about mud stoves, laundry, and health. Mud stoves and laundry were later mentioned as topics the women in the classes did not like to learn.

The agricultural topics the FHAs preferred teaching were poultry and vegetable production; a few women mentioned that they liked to teach about certain field crops (especially maize and groundnuts). There was some difficulty in talking about agricultural topics that they did not like to teach. Many remarked that they lacked information about agricultural topics (especially of animal husbandry and cash crops) and therefore did not like to teach these subjects. A couple of FHAs remarked that the male lecturers, Development Assistants and Field Assistants teach agriculture, so there is no possibility of having to do so.

---

\*For more information see Spring "Farm Home Assistants and Agricultural Training", September 1981, 9pp.

According to the FHAs, rural women want to learn about cooking and sewing first and foremost, but a few are interested in child care, home improvement and nutrition. According to the FHAs, rural women disliked learning about mud stoves, laundry, pit latrines and topics that they consider too theoretical. The FHAs said that women in their areas wanted to learn about agriculture particularly vegetable growing, maize and groundnuts; rice, tobacco, coffee, beans and potatoes were also mentioned. One FHA remarked that the women do not show up if they know the class will be on agriculture, another said that when she asked the women to do practical work for the vegetable garden, they did not report. On the other hand, several FHAs noted great interest in demonstrations and income generating vegetable gardens. In general there was a tendency for the likes and dislikes of the FHAs and what they reported for the women they taught, to coincide.

Eighteen (72%) of the FHAs taught both sexes, the others taught only or mostly women. There was a tendency for those teaching women mostly or exclusively to teach only home economics topics. The FHAs who taught men and women were divided into those who taught home economics subjects and those who taught both home economics and agriculture. One started teaching home economics (nutrition) to men because the women would agree to do things and then not carry them out because their husbands objected. Several remarked that they were unable to teach agriculture because the male FAs and DAs did it all. But in general, the FHAs who taught home economics and women exclusively had no interest in agriculture. An estimation of each FHA's interest in agriculture was made and the data grouped into three categories. Twenty eight per cent were completely disinterested, fifty six per cent were moderately interested and sixteen per cent were highly interested in agriculture.

Concerning the FHAs own participation in crop and animal production, seventy six per cent had their own gardens; these were mostly vegetable gardens ranging from five to twenty beds. Four had larger holdings of field crops (1 to 2.5 acres) as well. All but two kept poultry, 22% keeping only local breeds, 13% had hybrids only and 65% have both. Sixty five per cent had ten or more chickens. Two FHAs kept pigeons and one had goats.

Only six of the FHAs interviewed had ever organized a women's group. Clubs had been concerned with cooking, sewing, poultry keeping, sugar cane gardening, and coffee production. The FHA working with the coffee group had helped her group obtain credit but none of the other FHAs had ever had any experience with credit.

Questions were asked about what advice the FHAs would give concerning crop storage, vegetable and poultry production. One question concerned maize storage and vegetable and poultry production. Out of five possible answers on maize storage, (proper drying of maize to be stored, nkhekwe construction, roof, rat guards, use of actellic) the average number of correct answers was 2.9. Sweet potato storage had been discussed during the refresher course. Out of five answers to the questions (proper size of sweet potatoes to be stored, dry pit preparation, use of ash, pit cover, regular checking), the average number correct was

2.8. In terms of advice they would give on preparation and management of vegetable gardens (water, site selection, fencing, manures, spacing, nursery, planting and harvesting times, diseases, insecticides) respondents had an average of four out of eight correct answers. In terms of poultry keeping, there were six answers, (water, feeds, kholas, breeds, management, diseases) and the average was 3.2 correct.

All participants attending the course were given a twenty item agricultural knowledge test to test general knowledge as well as what was taught in the course. The average number correct was 14.3 with a range from 4 to 19. A subset of seven items which asked about materials taught during the first week of the course showed an average score of 4.5 with a range of 0 to 7. Judging from the percentages of correct answers for each question, the FHAs need more work on metrification, groundnuts (crop husbandry practices and diseases) and crop rotation since less than 50% got these correct. They were also somewhat weak in crop spacing, pest, dairying and tobacco.

### Discussion

The results point out that some FHAs are interested in agricultural topics and others are not. At first, it was conjectured that most of those interested in agriculture would be Colby graduates but many of the Thuchila and Magomero graduates were interested as well. However, most FHAs feel handicapped by a lack of training even in subjects they are supposed to teach (poultry keeping and vegetable growing). There were a few who were well informed about general agriculture and two who were teaching such "non-traditional" topics as coffee growing and dairying. On the other hand, some FHAs are clearly "cake bakers" and knitters with no interest in agriculture. These FHAs tended to teach only home economics subjects to women. Some did not cultivate their own gardens or keep much poultry.

The mediocre scores on the basic level advice and knowledge questions indicated a lack of training in agriculture which was also reflected in the comments made by FHAs. For many, the desire to teach agricultural topics is there, but they lack the knowledge, skills and confidence to do an adequate job. Many would be willing to remedy their situation given the opportunity.

### WIADP STUDY OF FHAs - No. 2\*

WIADP worked with the AWPO at LADD and WPO/IIQ to design a refresher course for female extension workers in LADD in January 1982. Of the 39 participants, there were 26 FHAs, 2 female FAs, and 10 DAs. Unlike previous courses which were mostly on home economics, agricultural subjects comprised roughly half of the course. Participants were surveyed by WIADP to find out:

- (a) the agricultural topics which they needed more training;
- (b) agricultural topics which they taught and to whom;

---

\*For more information see Kayuni, (B.C.). "Agriculture Refresher course for LADD Female Extension Workers". February, 1982. 10pp.

(c) problems in teaching agricultural topics and problems staff wives and/or female farmers had in learning the topics; and

(d) whether or not they learned the agricultural topics taught during the refresher course.

At the beginning of the course, 35 participants filled out forms indicating agricultural topics in which they have had training and taught, and in which they were interested in learning and teaching. Table 6-1 shows a variety of responses. Almost 40% had training in soyabean production but 70% were interested in teaching the topic. Similarly, three quarters had training in soyabean recipes but 92% were interested in teaching the topic and all who had training taught the topic to farmers. All the subjects had training in maize and ground-nut production but less than half taught the topics. The number of female workers who teach the agricultural topics is less than the number who have had training in the subject. Most participants require more training in many of the topics. Table 1 indicates that more respondents are interested in learning agricultural topics than in teaching them.

Table Annex 6-1

AGRICULTURAL TOPICS IN WHICH THE RESPONDENTS HAVE HAD TRAINING  
HAVE TAUGHT, ARE INTERESTED IN LEARNING AND TEACHING.

ACRICULTURAL TOPICS	TOPICS HAD TRAINING IN		TOPICS TAUGHT		TOPICS INTERESTED IN LEARNING		TOPICS INTERESTED IN LEARNING	
	NO.	%	No.	%	No.	%	No.	%
Soyabean recipes	27	75	27	75	30	83.3	33	91.7
Soyabean production	14	38.9	11	38.9	34	94.4	25	69.4
Maize Production	36	100	18	50	26	72.2	28	77.8
Maize Storage	31	86.1	22	61.1	27	75.0	28	77.8
Maize diseases	32	88.8	6	16.7	23	77.8	21	58.3
Use of fertilizer	30	83.3	13	36.1	27	75	21	58.3
G/nut Production	36	100	15	41.7	26	72.2	26	72.2
G/nut diseases	30	83.3	8	22.2	26	72.2	23	63.9
G/nut Storage	26	72.2	4	11.1	25	69.4	19	52.8
Stall-feeding	25	69.4	3	8.3	26	72.2	17	47.2
Dairying	23	63.9	2	5.6	27	75.0	13	36.1
Citrus Production	28	77.8	4	11.1	26	72.2	21	58.3
Citrus Diseases	16	44.4	1	2.8	26	72.2	13	36.1

The agricultural topics taught are mostly vegetable production and poultry keeping. Sixteen (67%) of the respondents taught vegetable production last year, eleven (46%) taught poultry keeping and six (25%) taught crop storage. Nineteen (38%) taught poultry keeping in the past. Participants indicated that they are mainly involved in vegetable and poultry production because the male extension staff taught other agricultural topics. Very few have taught other agricultural topics themselves. Table G-2 indicates that the number who teach agricultural topics is low. Less than one quarter of the respondents mentioned teaching agricultural topics last year and in the past. Three participants (13%) never taught agriculture before.

Table Annex 6-2

AGRICULTURAL TOPICS WHICH WERE TAUGHT THE PREVIOUS YEAR AND IN THE PAST

Agriculture Topics	Respondents who taught Agricultural Topics last year		Respondents who taught Agricultural Topics in the past	
	No.	%	No.	%
Vegetable Production	16	66.7	19	79.2
Poultry Keeping	11	45.8	9	37.5
Crop Storage	6	25.0	2	8.3
G/nut Production	5	20.8	4	16.7
Maize Production	4	16.7	3	12.5
Soyabean Production	4	16.7	1	4.2
Early Garden Preparation	3	12.5	2	8.3
Animal Husbandry	1	4.2	-	-
Crop Husbandry	1	4.2	1	4.2
Early Planting	1	4.2	1	4.2
Composite Manure Making	1	4.2	-	-
Maize Budgeting	1	4.2	-	-
Sweet Potato Production	1	4.2	-	-
Maize Storage	1	4.2	1	4.2
Cassava Production	1	4.2	-	-
Rice Production	-	-	1	4.2
Livestock Feeding	-	-	1	4.2

Participants were asked to specify their target teaching groups for agricultural topics. Most of the FHAs, DAs, and TAs taught female farmers, although in last year's training session, 50% taught agriculture to male farmers but previously only 17% did so.

According to the recent Ministry of Agriculture's policy, female extension workers should emphasize agriculture more than home economics (75% for agriculture and 25% for home economics). Few extension workers do so presently. The participants were asked to express their attitudes and abilities to teach more agriculture than home economics. Thirteen (54%) thought that teaching more agriculture would make the attendance at the course drop. Ten respondents said the attendance would increase if women attending agricultural production classes realized high yields and cash incomes from their production. A few said that they would combine agricultural topics with home economics practicals so as to keep women interested in the lesson. Two women reported that teaching more agriculture would make home economics training more successful and meaningful than in the past because of the availability of resources from increased agricultural production. Another respondent said that if she teaches more agriculture than home economics, rural women learn that female extension workers are agriculture as well as cookery teachers. Three subjects noted that the working morale of female extension workers would decrease, since they are not used to teaching agriculture. Regardless of the fact that the Ministry of Agriculture Women's Programmes policy recommends teaching more agriculture than home economics, seventeen (71%) of the respondents said that they would like to teach only 50% home economics and 50% agriculture. Two (8%) said that they would like to teach 25% agriculture and 75% home economics and another two (8%) preferred 35% agriculture and 65% home economics. One preferred to teach home economics only. Only one respondent mentioned that she would like to teach 75% agriculture and 25% home economics because the policy required it.

The participants were asked about problems which they and their students experience in the agricultural topics. Nine (38%) indicated that they have no problems while ten (42%) have problems because they do not have enough knowledge of some agricultural topics. Two participants said that they have never taught agricultural topics before. The participants claimed that some women are not interested in agricultural topics because (a) they see women's programmes as composed of only home economics because this has been its main emphasis so far; (b) they think agricultural lessons are only for men because men have been going to agricultural courses for a long time; (c) some believe that agricultural advice given to a wife would not be listened to her husband; and (d) some say vegetable growing is only for men ownership of dimba areas is mostly male. Participants said staff wives show little interest in agricultural topics.

The survey also asked the participants to evaluate the Refresher Course in terms of (1) information that was unclear to them; (2) difficulties with practicals and (3) ability to teach a topic as a result of the course. Some participants had difficulty with types of fertilizers, maize and vegetable varieties, disease identification and control and scientific names. Others mentioned difficulty with agronomic information on soyabeans, groundnuts, vegetables, stall-feeding and dairying. It is difficult to know whether or not materials were unclear due to poor presentation by lecturers, poor attention by participants or participants' inadequate agricultural backgrounds. However, the fact remains that if the female extension workers feel that the material is unclear or confusing, they cannot instruct others.

Some information was collected on the women perceived self confidence to teach the agricultural topics after the refresher course. Table 6-3 shows that most said they could teach many of the agricultural topics, except crop diseases but some said this just to impress the interviewer. No respondent indicated that she would be unable to teach something concerning maize production, groundnut production and stall-feeding. Though vegetable production is one of the topics which female extension workers teach, some indicated that they do not feel confident to teach the topic.

Table Annex 6-3

AGRICULTURAL TOPICS WHICH RESPONDENTS FEEL CONFIDENT TO TEACH  
AS A RESULT OF THE REFRESHER COURSE

T O P I C	FEELS CONFIDENT TO TEACH		CAN TEACH SOME SUB-TOPICS		DOES NOT FEEL CONFIDENT TO TEACH	
	NO.	%	No.	%	No.	%
Soyabean Production	21	87.5	2	8.3	1	4.2
Maize Production	21	87.5	4	11.6		
G/nut Production	21	87.5	3	12.5		
Stall-feeding	12	50.0	12	50.0		
Dairying	16	66.7	6	25.0	1	4.2
Vegetable Production	16	66.7	6	25.0	2	8.3
Fertilizers	16	66.7	7	29.2	1	4.2
Crop Diseases	1	4.2	9	37.5	9	37.5

In conclusion, FHAS, FASs & DAs teach mostly vegetable and poultry production if they teach any agriculture. Response from rural women on agricultural subjects is better than from staff wives who are mostly interested in home economics because they do little farming themselves. Most participants desire more training in agriculture yet many felt that they did not learn enough material in the agricultural topics at the refresher course to enable them to teach the topics. In spite of the MOA policy that FHAS should teach more agriculture, many cannot and therefore will not be able to follow the policy.

ANNEX 7

MANAGEMENT AND THE ROLE OF WOMEN IN DEVELOPMENT \*  
TC 140-17

DATES AND DURATION

6 weeks: April 4-May 13, 1983. Participants should arrive in Washington, D.C., on March 28 for orientation.

TARGET AUDIENCE

Senior women officials with management responsibilities in agriculture, private voluntary organizations, rural development, nutrition, and related areas. Also, women with promotion potential to senior management.

OBJECTIVES

Participants will develop knowledge and skills to: (1) use executive skills in planning, decisionmaking, and interpersonal communication; (2) anticipate, analyze, and manage special problems that may occur when women are leaders in predominantly male organizations; (3) articulate and provide leadership to help women assume a greater role in development; (4) demonstrate more effective influence/leadership skills; (5) be creative and objective in their leadership positions and better coordinate the inclusion of other women in organization programs and projects; and (6) implement changes within their organizations, both structurally and procedurally, which use resources more effectively.

CONTENT

Course includes -- self-diagnosis of management and interpersonal skills; women in development issues; goal setting; power structures and roles in organizations; problem-solving methodologies; building support networks; negotiation skills, strategy, and tactics; and open-systems planning. Instruction methods are highly individualized and interactive. Participants analyze women-in-development case studies using organization and management principles. Videotape is used extensively for self-assessment purposes. The fourth week of the program will be devoted to on-the-job experience in an area related to the participant's position in the home country.

OTHER INFORMATION

Conducted in English by Virginia Polytechnic Institute in collaboration with consultants, AID, and international organization staffs. Simultaneous interpretation is not available.

COST

AID participants: Total \$5,335 includes \$3,202 for training fee and associated costs and \$2,133 for maintenance allowance.  
UN/FAO participants: Total \$5,075 includes \$2,942 for training fee and associated costs and \$2,133 for maintenance allowance.  
All other participants: Total \$5,335 includes \$3,092 for training fee and associated costs payable to USDA, and \$2,243 for maintenance allowance, books, and book shipment payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Roanoke, Virginia, with a stopover in Washington, D.C., from March 28-April 1.

OVERSEAS AVAILABILITY

Available for overseas presentation upon request by AID, the World Bank, FAO, developing country governments, foundations, and private organizations. Can be conducted in English and French.

\* Course taken from United States Department of Agriculture 1982 Catalog Of Courses and Research Opportunities In Agriculture 1983. Washington, D.C.: Office Of International Cooperation And Development.

PROJECT PLANNING AND ANALYSIS FOR AGRICULTURE AND RURAL DEVELOPMENT  
TC 140-2

DATES AND DURATION

10 weeks: Section I. April 18-June 24, 1983. Participants should arrive in Washington, D.C., on April 13 for course orientation and administrative procedures.  
Section II. August 8-October 14, 1983. Participants should arrive in Washington, D.C., on August 3 for course orientation and administrative procedures.

TARGET AUDIENCE

Staff and technical personnel in Ministries of Agriculture, central and agricultural banks, and on planning boards who will be involved in project planning and evaluation as team members, supervisors, or teachers.

OBJECTIVES

Participants will develop the knowledge and skills to: (1) specify the objectives and critical factors in agricultural projects; (2) develop a project system that considers all agency and resource constraints; (3) examine alternative project components and implementation approaches; (4) estimate project benefits and costs; (5) evaluate financial and economic impacts of projects; (6) identify risks, complications, and methods for their inclusion in the analysis of projects; and (7) present data on alternative projects for comparison purposes.

CONTENT

The course includes the following topics: the role of project planning and analysis in agricultural development; the identification of project objectives and constraints; design of project proposals; logical framework analysis; network analysis using PERT and CPM; design of project organizational structure and lines of authority; collection of data on project resources, farm enterprises, and cooperative enterprises; financial analysis, including internal rate of return, benefit-costs analysis, discounting, and methods to estimate anticipated project benefits to specific groups and entities; economic analysis, including shadow pricing vs. market pricing, indirect benefits and costs, and differences between financial and economic analyses; refinements for dealing with uncertainty, inflation, mutually exclusive projects, and intangible costs and benefits. Two field trips allow intensive study of project planning and analysis practices, including onsite planning operations, data collection techniques, partial budget analysis, and the economic analysis of an agricultural development project.

OTHER INFORMATION

Conducted in English by USDA, university personnel, and consultants. Simultaneous interpretation is available in French and Spanish at additional cost.

COST

AID participants: Total \$9,109 includes \$5,459 for training fee and associated costs and \$3,650 for maintenance allowance.  
UN/FAO participants: Total \$8,849 includes \$5,199 for training fee and associated costs and \$3,650 for maintenance allowance.  
All other participants: Total \$9,109 includes \$5,349 for training fee and associated costs payable to USDA, and \$3,760 for maintenance allowance, books, and book shipment payable directly to the participant.

TRAVEL

Participants should be provided round trip air tickets from their home countries to Washington, D.C.

OVERSEAS AVAILABILITY

For overseas presentation, two separate courses are available--Project Planning and Project Analysis.