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PROCEEDINGS AND MATERIALS FROM THE NATIONAL WORKSHOP ON
WOMEN IN AGRICULTURAL DEVELOPMENT

MARCH 9-10, 1962

CHITEDZE AGRICULTURAL RESEARCH STATION

LILONGWE, MALAWI

COMPILED AND EDITED

BY

DR. ANITA SPRING

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WOMEN IN AGRICULTURAL DEVELOPMENT PROJECT
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
OFFICE OF WOMEN IN DEVELOPMENT

SEPTEMBER 1962

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We are grateful for financial support and some of the Workshop materials from the Office of Women in Development, United States Agency for International Development (USAID), Washington D.C. The Women and Food Network provided many copies of their Newsletter as well. In preparation of these Proceedings, the entire staff of the Women in Agricultural Development Project was involved, including Mr. Smith who came to Malawi after the Workshop. Our biggest debt of thanks goes to Mrs. Cecilia Ndacheredwa who typed the manuscripts and stencils.

P R E F A C E

The need for a Workshop on Women in Agricultural Development grew out of meetings held in late 1981 at the Ministry of Agriculture with the Women's Programmes Officers (WPOs) of the Department of Agricultural Development. The Women's Programmes Section had been created in April 1981 from the former Home Economics Section. None of the WPOs had been given training in women in development to help them in their transition from home economics workers. The Workshop hoped to provide them with some background materials and training. The Women's Programmes Officer, Mrs. C. Chibwona, aided in planning the Workshop.

The two day Workshop was opened by Mr. M. Muvila, the Chief Agricultural Development Officer of the Ministry of Agriculture. Both he and Dr. T. Legg, the Chief Agricultural Research Officer, under whose Department the Women in Agricultural Development Project is housed in the Ministry of Agriculture, gave their valuable support to the Workshop. Those presenting papers came from Chitedze, Bunda College of Agriculture and Chancellor College. Some of them consented to write up their presentations for the Proceedings. I prepared the reviews, excerpts and background materials and take full responsibility for their format.

The article on "Kawinga Farming Systems Survey : Background and Additional Recommendations" is presented here even though it was not presented at the Workshop. In addition, tables and visual aids that were displayed on the overhead projector are printed on coloured paper for ease of identification.

Dr. Anita Spring
Chitedze Agricultural Research Station
September 1982

THE AIMS AND OBJECTIVES OF THE WORKSHOP

Welcome to the first national workshop on women in agricultural development for Women's Programme Officers and others involved in women in development (WID) in Malawi.

This is a workshop not a conference. The purpose is to present background information and general instruction on the topic of women in development. The training includes presentation of general ideas as well as specific information about Malawi. The materials come from diverse sources and are at different levels.

The aims and objectives of the workshop are as follows:

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 perspective 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 Programme's Section of 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 is to help WPOs be more knowledgeable and sensitive to the needs of women farmers in the Agricultural Development Divisions.

NATIONAL WORKSHOP ON WOMEN AND DEVELOPMENT
2 10 MARCH, 1982

Opening Address:

M.L. Mawila
Chief Agricultural Development Officer
Ministry of Agriculture

Madam Chair, Ladies and Gentlemen,

First of all I thank the organizers of this Workshop for pulling together all our women in the country involved with matters relating to women's development. In the past it has been difficult for us to recognize the role women have played in the economic development in any nation and it is pleasing to see now that alot of us are seeing how important women are and have been in any development activities. It is with this background that this Workshop has been organized and I hope that an exploration of exactly what to do on women and development is going to be made.

Agricultural production in Malawi is a joint effort between men and women. However, women have tended to concentrate on food production (i.e., subsistence) rather than cash crop production due to their primary domestic roles. Women are therefore, farmers as well as home managers. While it is recognized that increased agricultural production can mainly be achieved through practising the recommended methods of cultivation in order to increase yield per hectare, there can be greater increases in production when the entire household, women and men, is provided with the appropriate extension services. Only when the family has obtained enough food and income from farming would the social service i.e., Home Economics be of great value to the farming community. Most of the subjects taught under the umbrella of Home Economics e.g., Home Improvement, Needlework, Cookery, etc., require income of some sort to be implemented and most rural families have a problem of lack of resources. The policy of the Ministry of Agriculture in general and the Department of Agricultural Development in particular is to ensure that women are fully intergrated into agricultural activities. With this in mind, the Department of Agricultural Development has now established a section known as the Women's Programme Section which is responsible for all activities done by our women in the country-side.

The policy therefore, places emphasis on agriculture for both men and women farmers. It would be a wrong understanding to say that women are meant to learn only activities which relate to cooking and sewing. We should now strongly move into the area of Agricultural Development for women.

First and foremost, we must identify what activities women are doing in the field of agriculture and then support the development of these activities through the extension effort. It is the policy of the Department of Agriculture Development to see that women in the country-side are organized into farmers' groups for ease of administering agricultural advice. It is therefore, my appeal that all Women's Programme Officers should immediately set up women's groups based on agricultural activities and not on home economics activities. These groups should have equal opportunities for training, extension and credit services just as men's farmers groups,....

It has been the belief by most of us that our trained women would only be employed either as Home Economists or Principals of Residential Training Centres. I want to emphasize that this is not correct and that now opportunities are open in the fields of research, agricultural extension, planning and veterinary services. Travelling around the country you find that there are quite a number of women who are now engaged in the above mentioned activities. I therefore appeal to all of us in this conference room to disseminate this information to all those concerned that the opportunities for women's employment is broader than home economics and training activities.

RECOGNIZING THE "INVISIBLE" WOMAN IN DEVELOPMENT*

In many developing countries, women tend to be economically invisible. Their domestic and child rearing activities are generally not valued for national income accounting (even though they produce the labour force). Their contributions to subsistence or cash agriculture as unpaid family workers are not separately accounted for. Although in many countries women represent some 70% of the agricultural labour force, statistics on economic activities in these same countries classify a large proportion of women as "economically not active".

Failure to recognize the economic contribution of women implies failure to consider the factors affecting:

- the ways in which they are prepared for their tasks;
- the tools and techniques they use; and
- the efficiency of their efforts.

The support by society, which women may need, is also ignored as is the question of whether or not they control the proceeds of, or rewards from, their efforts.

Why are women invisible?

- the data base on women is inadequate
- women are considered reproducers not producers
- women are classified as "housewives" i.e., non-workers
- statistics and surveys do not show women's work participation and economic contributions.

Data on women's economic participation as found in censuses and national statistics misrepresent women's economic activities. Work that is not performed for wages in the formal sector of the economy is not counted as work. Women who work for wages but who also perform house care duties are categorized as "housewives", i.e., non-workers. This inadequate economic data base for women is probably due to a deeply ingrained western vision that places women inside the home and restricts their functions to homemakers and childbearers. The data base for women as reproducers (child bearers and child rearers) is much better than data for women as economic producers.

Women have been targeted as concerns to development planners because of their reproductive not productive functions. When development projects focus on women, they have been directed primarily to women of child bearing ages to provide family spacing, nutrition information, and welfare programs. The bases for these projects comes from data on fertility and mortality which are quite good in some countries. If it is possible to collect so much information about reproduction (births, miscarriages, infant and child mortality), why can't information on women's economic production be collected as carefully?

The standard labour force concept refers to activities in which cash/kind is the intended or desired outcome. This excludes many workers from labour force statistics because what they produce is not considered income, though it is critical to the production processes. This is particularly true of work frequently performed by rural women workers that constitutes an essential part of agricultural production

*Partly taken from the Productivity of Women in Developing Countries: Measurement, Issues and Recommendations. International Centre for Research on Women, 1970.

WOMEN ARE "INVISIBLE"
IN DEVELOPMENT
BECAUSE

- WOMEN ARE CONSIDERED REPRODUCERS NOT PRODUCERS
 - THEY ARE CLASSIFIED AS "HOUSEWIVES" - i.e.,
NON-WORKERS
 - INADEQUATE DATA BASES - STATISTICS AND
SURVEYS DO NOT SHOW WOMEN'S WORK PARTICIPATION
AND ECONOMIC CONTRIBUTIONS
 - WOMEN LACK REPRESENTATION ON PLANNING BOARDS
-

FAILURE TO RECOGNIZE WOMEN'S ECONOMIC
CONTRIBUTION LEADS TO FAILURE TO CONSIDER
THE FACTORS AFFECTING THEIR CONTRIBUTION,

- THE WAYS IN WHICH THEY ARE PREPARED FOR
THEIR TASKS
- THE TOOLS AND TECHNIQUES THEY USE
- THE EFFICIENCY OF THEIR EFFORTS

- crop production (planting, weeding and harvesting), food processing and storage, tending small animals, and working in dairying. These activities are not monetized resulting in gross underestimates of women's contributions to the agricultural economy and an undercounting of women in agricultural employment statistics (this is also true for some men).

Men and women in low income economics perform a multiplicity of economic roles in order to survive. The practice in the census to classify individuals as economically active according to the job reported as their primary activity (i.e., one particular job). This excludes numerous productive and income generating activities for both men and women, but the omission of secondary activities lowers the employment statistics of women more than men for several reasons:

- 1- Many income generating activities involving women are on the borderline between things in the home and things for which they get economic remuneration.
- 2- The bias among census enumerators is to treat women as housewives only. Instructions issued in most censuses ignore whether women periodically engaged in agriculture should be classified as active or not. Married women are automatically classified as housewives and little attempt is made to determine if these women are doing any productive work in agriculture or rural industry. Also men may not like to report that women are economically active especially if men are expected to provide for the family.
- 3- Labour force surveys inquire about work performed recently (in the last week or month). The data is usually collected during slack periods in order not to interfere with busy agricultural times. Rural women work more during seasonal peaks so they are more likely to be statistically misclassified as non-workers in these surveys.
- 4- The labour force approach bypasses self employed people. For example, women who are market vendors are excluded as are small holders producing cash crops.

For example, a rural Malawian woman who is growing food for her family may do all or many of the farm operations (planting, weeding, harvesting and processing). None of these activities are monetized. If she sells a surplus to ADMARC or locally she herself is not counted as a worker nor is her husband if he is on the family farm. If the woman works for other farmers as a day labourer (ganyu) and gets paid in cash or kind, she is not counted as a worker. If she is married to a labourer on an estate and she works on the family farm she is not counted as a worker.

Formal Versus Informal Sector

Formal sector activities are businesses/industries (agricultural, manufacturing and services) and government agencies where workers are registered and counted. People in the informal sector are less visible and many times invisible as workers. Most self-employed people, domestic servants, those involved in trade, vending and handicrafts are in the informal sector and are not counted in statistics on workers. Men too find employment in the informal sector but this is often seen as a transitional phase for them. A lot of work men do is submerged and invisible but enough is in the formal sector and visible so they are seen as workers.

For example a worker on an estate in Malawi that keeps employment records is recorded as an agricultural labourer. A person who does.....

PRODUCTIVITY OF WOMEN IN DEVELOPMENT COUNTRIES

1. LABOUR STATISTICS USED IN PLANNING SHOW LOW RATES FOR WOMEN'S PARTICIPATION AS COMPARED TO MEN
2. REPORTED STATISTICS ON WOMEN BEAR LITTLE RELATIONSHIP TO WOMEN'S PRODUCTIVE CONTRIBUTION
 - WORKERS WHO DON'T GET PAID IN CASH ARE EXCLUDED SINCE THIS ACTIVITY IS NOT MONETIZED. THIS RESULTS IN GROSS UNDER-ESTIMATES OF WOMEN'S CONTRIBUTION TO THE AGRICULTURAL ECONOMY AND AN UNDER-COUNTING OF WOMEN IN AGRICULTURAL EMPLOYMENT STATISTICS
 - WOMEN ARE MORE LIKELY TO BE IN THE INFORMAL SECTOR (SELF-EMPLOYED, DOMESTIC SERVANTS, TRADE, HANDICRAFTS, ETC.), SO ARE EXCLUDED FROM LABOUR STATISTICS
 - WORK IN THE HOUSEHOLD IS NOT MEASURED, HOME PRODUCTION SUPPLIES HOUSEHOLD WITH GOODS AND SERVICES THAT WOULD HAVE TO BE BOUGHT OTHERWISE.
3. BY FAILING TO COUNT ALL THESE ACTIVITIES, STATISTICAL MEASURES DISTORT THE TOTAL OUTPUT OF THE ECONOMY AND CONTRIBUTE TO SOCIETY'S UNDERVALUING WOMEN'S WORK.

agricultural work for a large land owner who does not keep records is not recorded as an agricultural labourer.. Both work for wages, yet one is in the formal sector and the other is in the informal sector.

Example from the Malawi Statistical Year Book

From the Malawi Statistical Year Book comes Table 7.4 on the Average Number of Persons Engaged by Sex. The table gives employment figures for various industries in Malawi. In 1978 only 37,900 women were listed as employed in all industries (12.6% of total employed). In agriculture only 22,700 women and 146,600 men were employed. It is important to realise that these figures account for formal sector workers only. Obviously, the nation's smallholder farmers, both men and women, were not counted yet they work to produce the nation's food.

Home Production

Work in the household is not measured in national statistics. Home production consists of unpaid activities which are carried on, by and for the members of the household and which might be replaced by market foods or paid services, if circumstances such as income, market conditions and personal inclinations permit the sources being delegated to someone outside the household.

Economists in the West have struggled with the measurement of household production. In the mid 1970s they began to focus on home production in developing countries and value home production by its replacement value. The argument is that home production should be counted because it has the potential of being transferred to the market place, contributes to a more accurate assessment of the economy's growth over time, and is a way of valuing women's contribution to the society. Hence the policy relevance of measuring and assigning a value to home production activities is significant. Policy makers must assess an economy's growth in output over time. They need to know about the provisioning of certain sectors and any shifts from non-market to market sectors in the way people get goods and services. Measuring home production in developing countries would help in designing development programs and policies that make the most efficient use of all available labour resources.

Policies and Planning Boards

Women lack representation on planning boards. Policies and programs for women recognize and concentrate on women's roles as reproducers. Hence, programs are concerned with welfare services such as health, nutrition, child care and home economics. Even on the rare occasions when income generating, agricultural and other productive skills have been a programmatic focus, the projects have originated from welfare rather than developmental concerns. Hence, these programmes tend to promote the very dependency they were meant to alleviate.

Women have been doubly jeopardized by the welfare approach to programmes on their behalf. Welfare programs receive only a small fraction, not an equitable proportion of development funds. By focusing concerns about women on welfare oriented policies and special women's programmes, women are effectively excluded from a broad range of programmes and policies that would help them to be more productive. Because of the inadequate data base on women and perception of women as inactive economically, planners do not have adequate information about women's economic participation. Furthermore, because women lack representation on planning boards, it is difficult or impossible to voice their concerns.

TABLE 7.4. AVERAGE NUMBER OF PERSONS ENGAGED BY SEX
('000)

Industry Group	1977 (1)		1978 (1)	
	Male	Female	Male	Female
Agriculture, Forestry, Fishing	134.4	20.3	146.6	22.7
Mining and Quarrying	-	-	-	-
Manufacturing	31.0	1.8	34.0	1.8
Electricity and Water	2.5	.2	2.6	.2
Building and Construction	23.7	.1	31.8	.2
Wholesale and Retail Trade	23.1	1.2	24.2	2.9
Hotels and Restaurants (2)				
Transport, Storage, Communications	16.1	.6	16.0	1.2
Financial Institutions, Real Estate and Business Services	5.7	.7	6.0	.7
Community, Social and Personal Services	31.5	7.0	39.2	8.1
Total All Industries	275.0	32.6	300.3	37.9

(1) The figures cover all businesses known to be operating regardless of size.

(2) No information collected from Government Sector.

PROBLEMS CONCERNING AFRICAN WOMEN AS A RESULT OF AGRICULTURAL DEVELOPMENT

GENERAL PRINCIPLES

Three strategies as solutions to the world food problem are generally accepted by development planners:

- 1- to increase production
- 2- to generate greater income-producing activities
- 3- to reduce post-harvest food losses

But there is no acknowledgment that over half of the agricultural labour in developing African countries is provided by women, that both women and men generate income, and that women do most of the post harvest food processing and preservation.

Women's responsibilities to help feed their families are becoming harder to fulfill as modernization either restricts the traditional activities which enable them grow or earn food, or fails to provide them with the training, inputs and capital to participate in improved agriculture. There are many reasons why this has occurred. Some are outlined briefly here.

First, women's labour contributions to agriculture have not been recognized or have been ignored. Female systems of farming are foreign to consultants and planners from developed countries. Most country males may consider women's labour contributions inferior to their own. Furthermore, because women work in family units, their work is overlooked or ignored.

To a great extent, agricultural development started during the colonial period usually in agricultural programmes initiated by non-African men using the European farming systems as a model. This system, whether capitalist or socialist, considered the farmer to be male. A woman was never considered to be a farmer or manager in her right. By considering only the man as a farmer, the introduction of cash crops and new technologies to men created a productivity gap between men and women which was not there previously.

Second, men have been targeted as innovators while women often had been considered resistant to change. Because men are considered more amenable to adopting innovations, the new crops, technologies, and machinery are introduced to them. Women are ignored because (1) they are believed to cling to old ways, (2) they are more difficult to contact or (3) it is believed that information will filter down from their husbands. The idea that women are more resistant to change means that in planning, women are omitted from consideration as active farmers.

- For example, trial or demonstration farmers are rarely women. The recent on-farm, farmer managed trials in Liwonde Agricultural Development Division failed to include a single woman out of 50 farmers. This entirely rural area contains large numbers of female headed households and most married women are farmers as well.

Third, it is commonly believed by foreign experts as well as host country nationals that men do all the work on cash crops and that women only work on food or subsistence crops for home consumption. Men are viewed as being potential commercial farmers while women are not. In fact, women do work on subsistence production which allows the male and commercial orientation to continue, but in many places they work on cash crops in addition either with their spouses or on their own.

- Data from Malawi's Agro-Economic Surveys show that women work on cash as well as subsistence crops and do such farm operations as tobacco nursery transplanting and applying fertilizer, and cotton spraying (see review of Clark's article below).
- In Gambia 4000 women cultivated onions commercially when they received the proceeds from their sales. The onion scheme was very successful so that male farmers asked for assistance in planting this crop and the government complied. But the men wanted their wives to cultivate the crop. The women refused (although they still cultivated traditional crops on their husbands' land) and the men's onions withered.

Fourth, subsistence food crops tend to be ignored by research and extension in favour of cash crops. As a result, research recommendations on these crops tend to be non-existent, and farmers' incorrect practices are ignored by research and extension. Research on the storage and processing of food may lag behind research on the storing and processing of export crops. In many places extension services do not focus on subsistence crops and their storage and never contact women smallholders.

- In Malawi there are separate agricultural research authorities to deal with the production of tobacco, tea and coffee crops, and the amount of money spent on research on these crops plus sugar and cotton far exceeds the emphasis and amount of money spent on staple food crops (maize, groundnuts legumes, vegetables, etc.).

Fifth, in resettlement and development projects, women lose access to the means of production, that is to land, labour and capital. It is useful to consider these in greater detail and give some examples.

a. Land - women's rights to land are threatened in several ways by the increasing intensification of agriculture and "reforms" or settlement schemes. Increasing scarcity of land relative to population may result in the lineage restricting access to its male heads of households. Land reforms, systematically deprive women of their land rights when land holdings are transferred to husbands as heads of households and the existing mechanisms by which women receive rights to land are negated under the new rules. Another mechanism by which women lose land is to have food crops land which has been under their control taken for the cultivation of cash crops by their husbands or other men. In these cases, women have to walk longer distances to fields or never regain enough food crop land.

- Tonga women in Zambia who were resettled because of the Kariba dam lost their land holdings because only the household as a unit (represented by the husband) was compensated for old lands. Women did not receive direct compensation for their lost lands and were unable to acquire new lands in the new sites to replace the old.
- Among resettlement families in Ujamaa villages in Tanzania, each man who was chosen as a settler could only come if accompanied by a wife. Once in the land settlement schemes, women were worse off than before because they lost orchard lands and crops which they had grown apart from their husbands'. Furthermore, the government scheme was based on the idea that husbands controlled the land and gave it to wives to work on. In the new scheme no provisions were made for a woman continuing to cultivate the land in the event of a man's death. Consequently widows had to leave the scheme.

- It is common on schemes to provide land for the main (cash) crop but not for the food crops which the family grew before coming to the scheme. On rice schemes in Kenya and Malawi (e.g., Wavve), no land was allocated for growing maize and vegetables. People had to find land outside the scheme. Married women had to rely on the good will of their husbands, who held the credit and sold the rice, to obtain cash to purchase crops not grown on the scheme.
- Some widows lost food crop land to a cotton schemes in Karongo. Cotton is not considered a women's crop, so widows were not offered land and credit for its production on the scheme.
- In Cameroon women farmers were forced off cleared land near the village to make space for coffee and cocoa plantations. As a result food fields are anywhere from 1-10km from villages (3-6km being most common). This distance implies a 1-1½ hour walk to food fields over rough paths often with slippery stream and marsh crossings. On the trek back, a woman often carries supplies of cassava, plantains, and maize, plus firewood, and of course, babies. Injuries from falls and scrapes are common and much spontaneous abortion and persistent backache is blamed on this aspect of women's work. (Quoted in Dixon Pages 61-62)

Finally, in places where land is sold or becomes available through cash sales, women are unable to buy land because they often do not have the cash to be able to do so.

- b. Labour - the process of development tends not to relieve the agricultural burdens of women. In fact development seems to have the opposite effect. Studies show that in areas which have undergone development schemes, the women's work load has increased absolutely and relative to men's. Mechanization is generally available only for the tasks performed by men such as ground clearing and ploughing. The acreage to be cultivated, wooded, and harvested by women is often increased by machines used by men. Additionally, women's labour and decision-making may increase as men leave the farm to work in the estate sector, urban areas and mines.
- In Kenya the Gusii mothers had increased agricultural workloads when fathers were away, and children became victims mothers' excessive burdens. To do the increased work, women here as elsewhere found it necessary to enlist the help of children, especially their daughter. The result was that fewer girls could attend school.
 - Clark's study (reviewed below) shows that both men and women's agricultural labour increased in Ngabu as a result of a cotton development scheme. Yet the domestic work which women did remained the same.
 - Mrs. Susan Beckerson at Bunda College study of families growing tobacco versus those involved in traditional sweet potato production show that women in the tobacco growing families worked more hours, had less time for preparing meals because they were tired from agricultural work, and had less leisure time.
 - A study of Bemba women in Zambia showed that with extensive male migration, women's agricultural workloads increased. But because of the decrease in agricultural labour, total production decreased resulting in decreased caloric intake.

c. Capital - Women have very little access to capital (cash) for a variety of reasons. Credit programmes for agricultural inputs and machinery are directed to male farmers. Cash from the harvest goes to men. There are various reasons for this, all of which are connected to the failure of planners to see women as vitally important in the agricultural process. The purpose of many development projects is to increase income. The problems arise when the cash for crops grown goes to the male head of household only.

Some studies show that as the household's income increases, the nutritional status may decline. The primary reason is that income from cash crops goes to the man. He is likely to use the money for buying consumer goods such as radios and watches, throwing prestige feasts, buying beer, and socializing. The wife may see little of that money to buy food or put back into agricultural enterprises.

- Married women on irrigated Rice Schemes in Karonga reported that it was harder to grow irrigated rice than rain-fed rice or maize which they grew prior to coming to the scheme. (In fact the Agro-Economic Survey on Karonga North - Report NO. 18, 1976 shows that irrigated rice requires 10 times as much labour as maize and women do the majority of the work.) Yet the cash from rice sales went to their husbands. One man said: "We men are greedy. We go to sell but we use the money to get another wife or drink it all. The women don't like it. It is a common mistake of husbands. It is better if a woman has a plot of her own." (However, only unmarried women may apply for plots.)

Additionally, as processing of food stuffs and manufacturing of household items moves from the household to the factory, women who could sell these products lose this means of obtaining needed income.

Sixth, men are targeted for all levels of agricultural training. Agricultural courses for smallholder farmers tend to recruit males. Training at higher levels for extension positions, and diploma and degree programmes tend to be given mostly to males. Part of the reason for agricultural training programmes at all levels going to men is that men are more likely to be selected for all forms of education in developing as well as developed societies.

- In Kenya, credit facilities, agricultural extension services and training programmes that in the past went to white settlers now go mostly to men. The differences in the facilities for rural men and women farmers are partly because of past history, but partly because of the separation of the sexes in terms of communication. "Men talk to men, women to women", and almost all the extension agents are male. About a third of the extension officers interviewed in one study expressed some prejudice towards women in agricultural production.

Seventh, women are targeted for home economics not agricultural training.* Women often are very interested in home economics topics especially cooking, sewing and home improvement. Those women who can afford the materials and time to pursue these activities tend to be wives of salaried men. Women who are farmers may also be interested in these topics but their ability to participate is limited by their agricultural calendar and cash to purchase materials. The problem becomes that home economics classes may be pleasurable and useful.

* In the developed world a model for training men and women was based on the notion that food before it left the field was the provenience of men and food after it was harvested was the provenience of women. As such, the need for scientific agriculture and scientific home making developed. Technical agricultural schools were designed for males and home economics (becoming increasingly technical) were designed for females. This model, used extensively in the U.S., has been exported to other countries.

PROBLEMS CONCERNING WOMEN AS A RESULT OF AGRICULTURAL DEVELOPMENT

1. FEMALE FARMING SYSTEMS ARE NOT RECOGNIZED; WOMEN'S LABOUR CONTRIBUTIONS ARE IGNORED OR CONSIDERED INFERIOR.
2. MEN ARE TARGETED AS INNOVATORS; WOMEN ARE CONSIDERED RESISTANT TO CHANGE. NEW CROPS, TECHNOLOGIES AND MACHINERY ARE INTRODUCED TO MEN.
3. CASH CROPS ARE INTRODUCED TO MEN BECAUSE OF THE BELIEF THAT WOMEN WORK ONLY ON SUBSISTENCE FOOD CROPS.
4. SUBSISTENCE FOOD CROPS ARE IGNORED BY RESEARCH AND EXTENSION.
5. WOMEN LOSE ACCESS TO THE MEANS OF PRODUCTION.
 - LAND:
 - RESETTLEMENT SCHEMES AND LAND REFORMS ALLOCATE LAND TO MALE HOUSEHOLD HEADS ONLY. SOMETIMES LITTLE OR NO LAND IS ALLOCATED FOR FOOD CROPS.
 - LAND FOR FOOD CROPS IS TURNED OVER TO MEN FOR CASH CROPS.
 - LABOUR:
 - MALE MIGRATION AND OFF-FARM EMPLOYMENT INCREASES WOMEN'S AGRICULTURAL WORK.
 - PROJECTS BRING MECHANIZATION TO MEN'S TASKS BUT LEAVE WOMEN'S TASKS UNMECHANIZED.
 - PROJECTS INCREASE WOMEN'S WORK BUT THE REMUNERATION GOES TO MEN.
 - CAPITAL:
 - ACCESS TO CASH CROPPING AND CREDIT IS LIMITED AND DIRECTED TO MEN.
 - WOMEN'S ACCESS TO CASH IS DECREASED BECAUSE OF THE MECHANIZATION OF FOOD PROCESSING AND DOWN-GRADING OF TRADING AND HANDICRAFT ACTIVITIES.
6. MEN ARE TARGETED FOR AGRICULTURAL TRAINING PROGRAMMES AT FARMER, EXTENSION PERSONNEL, AND MANAGEMENT LEVELS.
7. WOMEN ARE TARGETED FOR REPRODUCTIVE ROLES AND HOME ECONOMICS CLASSES WHICH ARE PLEASURABLE AND USEFUL, BUT DO NOT PROVIDE AGRICULTURAL KNOWLEDGE AND SKILLS, SIGNIFICANT CASH, OR RELIEF FROM LABOUR BURDENS.

but they do not provide for the agricultural training needs of rural farm women. Home economics and craft projects rarely provide significant cash incomes (see section on "Women and Handicrafts" below). Instruction in home economics topics do not relieve women's agricultural burdens as they are rarely concerned with appropriate technology either for agricultural or food processing jobs. Finally, by offering rural farm women domestic skills only, planners fail to provide agricultural knowledge and skills that could improve women's farming and thereby contribute to increasing the family's nutrition and income.

REPORT ON THE CONFERENCE ON WOMEN'S CONTRIBUTION TO FOOD PRODUCTION
AND RURAL DEVELOPMENT IN AFRICA, LOME, TOGO. JUNE 1981 CO-SPONSORED
BY THE ASSOCIATION FOR THE ADVANCEMENT OF AGRICULTURAL SCIENCES AND
THE FOR FOUNDATION.

EXCERPTED FROM THE WOMEN AND FOOD INFORMATION
NETWORK NEWSLETTER NO. 3 DECEMBER 1981*

"Women produce something over half of the food grown in Africa. Traditionally, women have filled two roles in African society: producers of food, food products and handicrafts; and reproducers of its human resources, a task which includes not only child-bearing but child-rearing and maintenance of the labour force. In precolonial societies the sexual division of labour was complementary and took into account the women's reproductive role. However, with colonization and the penetration of the cash economy, women's tasks were devalued in relation to men's tasks of cash-cropping and participation in the paid labour force.

Rapid modernization has also led to (a) an increase in the amount of female labour required for family subsistence; (b) a decrease in women's access to the means of production (land, labour and capital); and (c) a further decrease in women's access to cash due to three factors: increasing mechanization of food processing tasks with profits going to men, the reduction in the market for handicrafts with the introduction of cheaper imports, and downgrading of trading activities due to more complex regulations involving imports.

Thus women have more work and financial responsibilities and less access to cash. It is no wonder that the situation has led to an overall worsening of living conditions, an increased economic stratification and social differentiation, and a breakdown in society. There is tension between men and women as women's power in the family is eroded because of her increasing inability to pay for "her" financial responsibilities.

Many current development interventions are only compounding the problem as they continue to deal only with women's role as reproducers (e.g., homemaking classes), when what the women desperately require is assistance with their production to give them access to badly needed cash.

Clearly then, a new approach to development is needed. The following list of requirements for successful development that integrates women was compiled from a number of presentations.

- 1- If women have to increase their food production, this interest must be shared not only by women but by all members.
- 2- Women must be active participants in the design, decision-making and implementation of any projects.
- 3- Any introduced innovation must answer a need perceived by the target group with an appropriate level of intervention.

*One may receive the Newsletter by contacting Kate Cloud, Project Director, The Women and Food Information Network, 24 Peabody Terrace, No. 1403, Cambridge, MA 02138, U.S.A.

- 4- Women must have access to institutional support, to credit, and to production inputs.
- 5- Whatever intervention is decided upon, women must learn to use it.
- 6- Women must have the time to use any introduction.
- 7- Women must have the health to use any new programmes.
- 8- Governments must be committed to improvement of women's effectiveness.

While not every African government may yet have specific policies for assistance to women's food production activities, such policies were adopted by the Assembled Heads of African States (OAA) as part of the Lagos Plan of Action for the Economic Development of Africa in April, 1980. To quote the plan:

The Regional Food Plan for Africa emphasizes the importance of roles women can play. To strengthen the Plan of Action regarding women's labour in rural areas, the following strategies are suggested:

- Based on continuous research, promote the recognition and documentation of women's contribution to agriculture as a productive activity contributing to the gross national product, especially in terms of food supply;
- In national plans, recognize women as vital instruments for solving the food crisis and make deliberate provisions to upgrade women's skills and lessen their labour;
- In the choice of appropriate technologies make women's work more productive and less onerous, improve traditional techniques in food preservation and storage;
- Devise appropriate training programmes to familiarize women with new and improved technologies suited to their situation and resources;
- Give priority attention to employment in rural areas in order to keep there those young women who, to escape the hard and dull life in the countryside, go off to seek adventure in the cities, where they swell the numbers of unemployed. (para. 316)

Special attention should be paid to the development of women's co-operatives in particular those dealing with agricultural marketing, labour and production. More female extension officers should be trained. (para. 317)

RESEARCH, DATA COLLECTION AND ANALYSIS

The areas identified for study in the Plan of Action remain valid, particularly in light of the fact that few national censuses and surveys have been undertaken since 1975. When they are about to commence, it is important to stress to national directors of statistics the need for breakdown by sex in order to identify areas for action relevant to women, particularly in the subtheme areas of employment, health and education. Lack of such sex breakdowns has in the past hindered identification of special needs of women. (para 323)

More research needs to be done on women as food producers; on cropping methods used by women and possibilities for introducing improvements; on poor (urban and rural) women who perform multiple roles and on women as heads of household, in view of the development emphasis since 1975, particularly on agrarian reform and rural development as well as on alternate development and "the New International Economic Order. Research should be done on the following fields:

- Study of self-help methods in the urban and rural areas;
- Research on data collection systems in sectors such as agriculture, small businesses, etc.;
- Study of conservation and storage methods;
- Study of integrated development projects to establish areas of integrated development through better exploitation of family plots. (para. 324)"

THE INVOLVEMENT OF AFRICAN WOMEN IN AGRICULTURE

I. FEMALE AND MALE SYSTEMS OF FARMING

It is useful to consider the notions of female and male systems of farming as a way of describing the intensity and importance of African women's agricultural involvement. Ester Boserup, a Danish economist, described these systems in a book entitled Women's Role in Economic Development, published by George Allen and Unwin in Britain and St. Martin's Press in the U.S. in 1970.

In this book* she argued that it was wrong to talk of men bringing home the food and women preparing it as a universal pattern. Rather there are some systems where women are in charge of agriculture and others where men predominate. Female systems are found in areas of shifting agriculture where the plough is absent. Using national figures on the labour force in agriculture (see table) Boserup showed that areas of female farming systems are Africa and Southeast Asia. In these areas men tend to do heavy work of felling trees; women do most of the garden work. Women may work longer hours than men or if shorter hours, they may work more days year round. The way to increase production is to increase the number of wives, so polygyny where a man has more than one wife, (commonly miscalled polygamy which means a person has more than one spouse and is not sex-specific) increases production. Husbands give limited support to their wives who have high mobility and much independence from production and sales of their own crops. Women are valued as mothers of sons and daughters and as workers.

Because of women's self sufficiency at home, when plantation and estate agriculture and mining operations were established during the colonial and post-independent periods, there was no need for agricultural or mine labourers to bring wives and families. It was cheaper to bring and house only male labourers. The women could stay behind on the family farm and grow the crops and feed the family in the husband's absence.

By contrast, male systems of farming are found in the developing countries of Latin America, the Middle East and most regions of Arab influence. Men do most of the garden work with help of the plough. Women are either secluded or not, but do no or less agricultural work than men. Men use the plough and drought animals while women have only hand operations like transplanting paddy left to do. The wife is entirely dependent on the husband for support. Women are seen as liabilities and valued as mothers of sons. Their domain is mainly domestic. A husband has obligation to support his wife. Polygynous marriages are few and they do not increase production. Production is increased by hiring labourers. With male system of farming comes private land ownership, and landless families are those who can be hired.

Where the male farming systems occurred, the plantation or estate sector used the whole family. On the one hand, women were dependents and so entire

*While recognizing its value, there have been criticisms of Boserup's work. The volume represents the first time anyone put women's economic participation together by regions, offered explanations of farming, marketing systems and migration, identified the impact of development on women, and realized that the sexual division of labour is critical. Some of the criticisms of the book are that there is no consideration of women's role in reproducing the labour force, that European patriarchy is not responsible for women falling behind in agricultural development but rather the accumulation of capital and internationalization of capital have worked to exclude women's agricultural participation in modern, and that employers don't always prefer men to women workers, etc. (See Lourdes Beneria and Gita Sen, "Accumulation, Reproduction and Women's Role in Economic Development: Boserup Revisited" Burg-Wortenstein Symposium No. 85: Wenner-Gren Foundation for Anthropological Research, 1665 Broadway, New York, New York 10023, U.S.A., 1980).

LABOUR FORCE IN AGRICULTURE
(% of total force)

	Female Family Labour	Male Family Labour	Agricultural Workers of Both Sexes
AFRICA			
Sierra Leone	42	57	1
Liberia	42	49	9
Ghana	36	55	9
South Africa	5	29	66
Mauritius	2	13	85
REGION OF ARAB INFLUENCE			
Sudan	9	78	13
Morocco	9	72	19
Algeria	37	40	23
Tunisia	38	42	20
Libya	2	79	19
Egypt	2	61	37
Turkey	49	47	4
Jordan	3	70	27
Syria	5	56	39
Iraq	1	74	25
Iran	4	68	28
Pakistan	13	73	14
SOUTH AND EAST ASIA			
India	24	48	28
Ceylon	3	43	54
Thailand	50	47	3
Cambodia	45	53	2
Malaya	16	41	43
Singapore	24	49	28
Phillippines	13	76	11
Taiwan	19	71	10
Hong Kong	34	46	20
South Korea	45	52	3
LATIN AMERICA			
Mexico	2	44	54
Honduras	1	73	27
El Salvadore		36	64
Nicaragua	3	50	47
Costa Rica		46	54
Panama	3	83	14
Columbia	3	54	43
Ecuador	3	57	40
Chile	2	29	69
Brazil	8	57	25
Venezuela	2	65	33
Cuba		37	63
Jamaica	9	50	41
Dominican Rep.	1	74	25
Puerto Rico	1	18	91

FEMALE AND MALE SYSTEMS OF FARMING

FEMALE SYSTEMS OF FARMING

- LOCATED IN AFRICA AND S.E. ASIA
- SHIFTING CULTIVATION
- MEN FELL TREES AND WOMEN DO MOST OF THE GARDEN WORK
WOMEN WORK MORE HOURS AND LONGER HOURS IN AGRICULTURE THAN MEN
- POLYGYNY (MAN HAS MORE THAN ONE WIFE) INCREASES PRODUCTION.
- PLANTATIONS, ESTATES AND MINES SEEK MEN
MEN AS LABOURERS AND WOMEN STAY BEHIND ON FAMILY FARM. WOMEN ARE RESPONSIBLE FOR FEEDING THE FAMILY IN THE HUSBAND'S ABSENCE.

MALE SYSTEMS OF FARMING

- LOCATED IN LATIN AMERICA, MIDDLE EAST, AND AREAS OF ARAB INFLUENCE
- PLOUGH CULTIVATION
- MEN DO MOST OF THE GARDEN WORK. WOMEN ARE SECLUDED, ARE HELPERS OR WORK AS LABOURERS IF FAMILY IS POOR.
- WOMEN ARE DEPENDENT ON MEN FOR ECONOMIC SUPPORT
- PLANTATIONS AND ESTATES SEEK THE ENTIRE FAMILY WHICH MOVES THERE AND WORKS, ALTHOUGH WOMEN MAY WORK LESS AND AT LOWER PAYING JOBS.

ESTER BOSERUP: WOMEN'S ROLE IN ECONOMIC DEVELOPMENT, 1970

families had to be brought. On the other, women could do the double job of plantation work - often piece work at lower pay - and domestic work.

Boserup argued that the European settlers, colonial administrations and technical advisors believed that male farming was superior to female farming. As a result, women as agriculturalists were ignored. Extension services and training and new crops and technologies were introduced to men. Women were left with old traditional methods, the staple family food crops, and no money or education to improve. Men's prestige was enhanced because they were involved in "modern things", whereas women's was lowered as they represented the "old drudgery".

II. SOME DATA ON HOURS AND FARM OPERATIONS DONE BY AFRICAN WOMEN

The next three charts provide a visual representation of women's agriculture involvement.

- A. The chart on "the Division of Labour in Rural Africa" shows the tasks and percentage of total labour in hours that men and women in African rural areas do. Men are usually responsible for the initial heavy clearing of the new fields - cutting down forests and turning the soil. Women then take over the work of planting, storing, processing and marketing the crop. Men hunt and trim tree crops. Women obtain water and fuel and feed and care for young, the men and the aged.
- B. A visual representation of the hours spent in agriculture and marketing of men and women in Africa is given in the next chart. Women spend two thirds of the total hours in agriculture and three fifth of the total hours in marketing. It should be noted that these are general figures for Africa. Women tend to be more involved in marketing in West Africa than in Southern and Eastern Africa.
- C. "A Visual Indication in Responses to Questions on Division of Agricultural Labour" comes from a study of 32 families in South-west Ghana. The chart shows that men do the majority of work in clearing bush and preparing land (except legumes). Women do the majority of work on sowing and planting (except rice, citrus, and coconut/palm nut), weeding (except coconut/palm nut and citrus), harvesting (except plantation and coconut/palm nut), storing (except rice, coconut, palm nut and citrus), and transporting the harvest home. The chart makes clear that in order to understand women's agricultural involvement, it is important to consider the separate farm operations for each crop in terms of the sexual division of labour.

DIVISION OF LABOUR IN RURAL AFRICA

FROM NUMEROUS STUDIES OUT BY ANTHROPOLOGISTS, SOCIOLOGISTS AND EXTENSION WORKERS IN RURAL AREAS OF AFRICA, WE CAN ROUGHLY ESTIMATE THE DIVISION OF RURAL LABOUR INTO TASKS FOR MEN AND FOR WOMEN AS FOLLOWS:

	<u>% OF TOTAL LABOUR</u>	
	<u>IN HOURS</u>	
	MEN	WOMEN
CUTS DOWN THE FOREST; STAKES OUT THE FIELDS	95	5
URNS THE SOIL - - -	70	30
PLANTS THE SEEDS AND CUTTINGS -	50	50
HOES AND WEEDS - - -	30	70
HARVESTS - - -	40	60
TRANSPORTS CROPS HOME FROM THE FIELDS - - -	20	80
STORES THE CROPS - - -	20	80
PROCESSES THE FOOD CROPS - - -	10	90
MARKETS THE EXCESS (INCLUDING TRANSPORT TO MARKET)-	40	60
TRIMS THE TREE CROPS - - -	90	10
CARRIES THE WATER AND THE FUEL-	10	90
CARES FOR THE DOMESTIC ANIMALS AND CLEANS THE STABLES -	50	50
HUNTS - - -	90	10
FEEDS AND CARES FOR THE YOUNG, THE MEN AND THE AGED- -	5	95

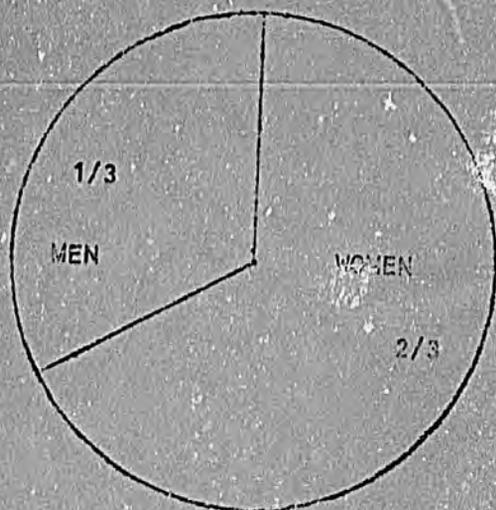
THIS DIVISION OF LABOUR SHOWS THAT MEN ARE ALMOST UNIVERSALLY RESPONSIBLE FOR THE INITIAL HEAVY CLEARING OF THE NEW FIELDS. BUT FROM THAT TIME, WOMEN PROGRESSIVELY SHARE OR MORE OFTEN TAKE OVER THE WORK OF SOWING, WEEDING, HARVESTING, STORAGE, PROCESSING AND MARKETING.

Source: U.N. WOMEN IN AFRICA, 1975

B

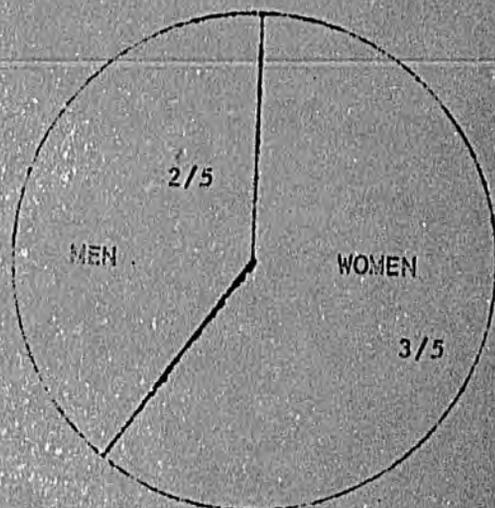
MANUFACTURE AND MARKETING BY SEX
THE EVIDENCE WE HAVE GATHERED FROM NEARLY ALL COUNTRIES INDICATES THAT THE HOURS OF WORK OF MEN COMPARED WITH THOSE OF WOMEN IN TRADITIONAL AFRICAN AGRICULTURE AND MARKETING (THE DOMINANT ECONOMIC ACTIVITIES OF THE MAJORITY OF AFRICANS) ARE AS FOLLOWS:

TOTAL HOURS SPENT IN



AGRICULTURE

TOTAL HOURS SPENT IN



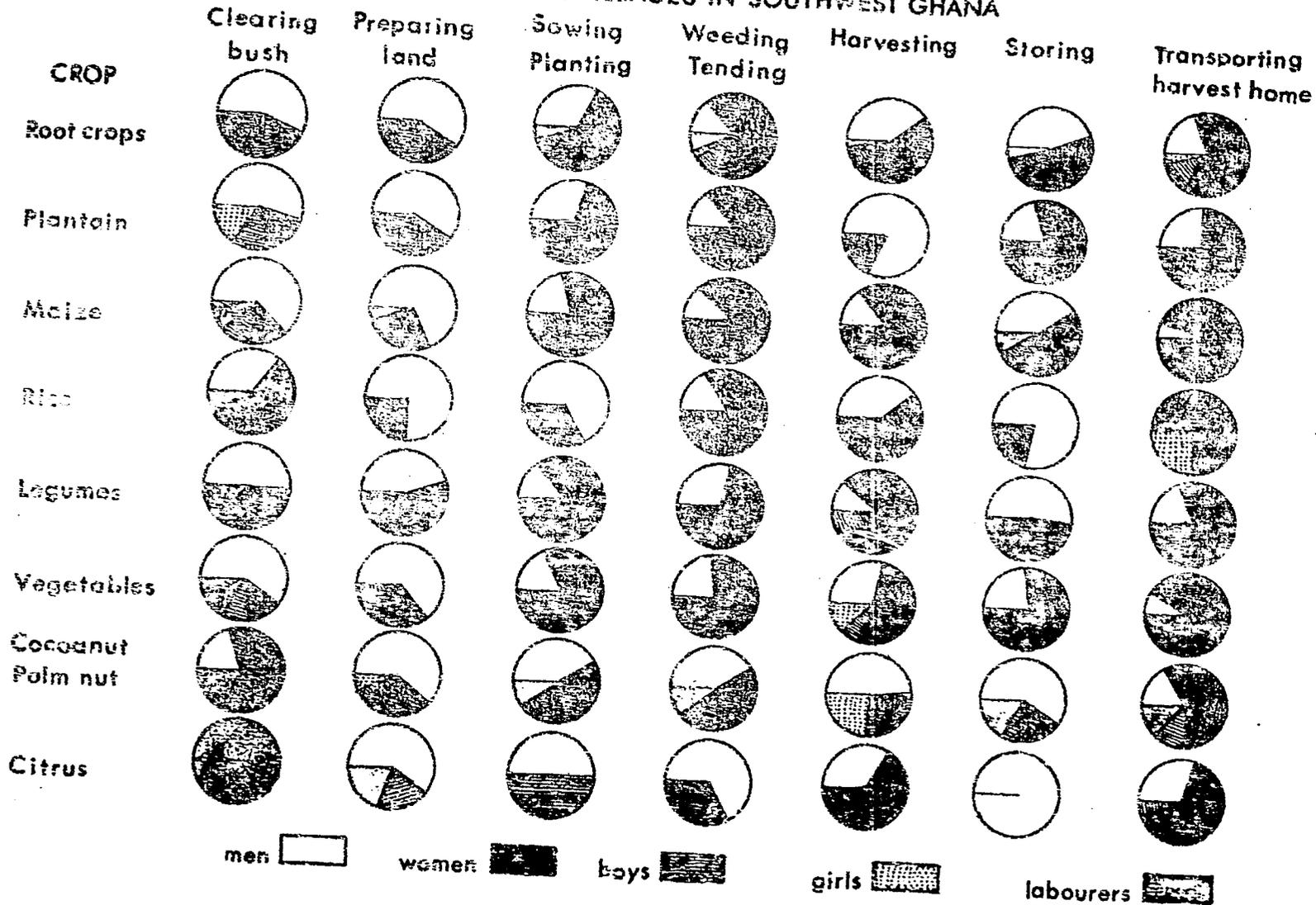
MARKETING

Source: U.N. Women in Africa, 1975

A VISUAL INDICATION IN RESPONSES TO QUESTIONS ON DIVISION OF AGRICULTURAL LABOUR 32 FAMILIES IN 2 VILLAGES IN SOUTHWEST GHANA

Source: ATKW

Report of a Workshop for Trainers
in Programmes to Improve the
Quality of Rural Life, 1973



"BARBARA CLARK: THE WORK DONE BY RURAL WOMEN IN MALAWI"
 PUBLISHED IN THE EASTERN AFRICA JOURNAL OF RURAL DEVELOPMENT

3:2:80-91 1975

ARTICLE REVIEW

This paper is an excellent source of data on the agricultural labour expended by Malawian women farmers. [The paper was issued originally in 1972 from the Ministry of Agriculture]. The article is based on the analysis of the Agro Economic Survey data collected by teams lead by Dr. Mizeze from September 1970 to August 1971. The aim of the survey was to produce comprehensive farm management data.

Clark presents data from 5 sites (Karonga, Mzimba, Thyolo, Lake Chilwa and Ngabu). The sample number of households broken down into male headed households (MHH) and female headed households (FHH) and 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 1 on the "Occupations of Rural Women in Malawi" provides information on the ways in which women spend their time. The figures refer to all women 15 years of age and over. The figures suggest that overall women in general spend as much time in farm work (20%) as in domestic activities (23%). Clark argues that women's time spent on farm work may increase considerably in a development area. 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. Ngabu women spent only 6% of their time being sick whereas in Karonga the figure is 10% and in Mzimba it is 3%. Clark asks if this is because health facilities are better in Ngabu or busy women have less time to be sick. Similarly, Karonga women spend 7% of their time at social obligations whereas Ngabu women spend only 1%.

Tables 2 through 4, compare work done by male heads and female head/wives in terms of total hours per annum and per day. The figures for Karonga are men 1.7, women 2.0; Thyolo men 2.1, women 2.4 and Lake Chilwa men 2.5, women 2.7 hrs/day. Men work longer hours per day than men on the family's crop. In Ngabu men and women spend the same amount of time (3.3 hours/day) on the family's crop (Table 4) and this amount is higher than elsewhere. Only in Mzimba do men spend more time than women (2.0^{men} men 1.8). 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 crops.

MAJOR POINTS

"THE WORK DONE BY RURAL WOMEN IN MALAWI"

BY

BARBARA CLARK, 1975

THE STUDY

THE DATA COMES FROM 5 SITES WHERE AGRO-ECONOMIC SURVEYS WERE CARRIED OUT IN 1970-71: KARONGA, MZIMBA, THYOLO, LAKE CHILWA AND NGABU. THE SURVEY AIMED TO PRODUCE COMPREHENSIVE FARM MANAGEMENT DATA.

THE FINDINGS

1. IN GENERAL, WOMEN SPEND AS MUCH TIME ON FARM WORK AS ON DOMESTIC ACTIVITIES AND WOMEN DO DOMESTIC ACTIVITIES AFTER WORKING AS MUCH AS MEN ON FARMING ACTIVITIES.
2. IN KARONGA, THYOLO, AND LAKE CHILWA WOMEN WORK LONGER HOURS PER DAY THAN MEN ON THE FAMILY'S CROPS. IN NGABU WHERE A DEVELOPMENT PROJECT WAS OPERATING, MEN AND WOMEN SPENT THE SAME AMOUNT OF TIME AND THIS AMOUNT WAS HIGHER THAN ELSEWHERE.
3. WOMEN'S TIME SPENT ON FARM WORK MAY INCREASE CONSIDERABLY IN A DEVELOPMENT AREA.
4. WOMEN WORK ON CASH CROPS AS WELL AS SUBSISTENCE CROPS. WOMEN WORK MORE HOURS THAN MEN ON THESE CROPS. SUBSTANTIAL PARTS OF CASH CROP OPERATIONS SUCH AS TOBACCO NURSERY TRANSPLANTING AND COTTON SPRAYING ARE DONE BY WOMEN.

Table 5, considers 50 hours per day spent in productive activities and shows a variation from 3.9 to 7.0. 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 remarks that it is widely admitted that Malawian women do a lot 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, they only help with harvesting and post-harvest operations. Table 6 through 9 compare proportions of work done by men and women on a traditional crop (maize in Ngabu, Table 6) and three cash crops (tobacco in 'Zimba, Table 7, sprayed cotton in Ngabu, Table 8 and unsprayed cotton in Karonga, Table 9). The tables show that women do more total work than the men on every crop, although the gap is widest in the case of maize (men 25% versus women 54% of the work, Table 6). On cash crops, women do other operations as well as harvesting and grading. Women are involved in planting, nursery planting, weeding, thinning, spraying cotton, curing tobacco, shelling and marketing. A substantial part (39%) of the tobacco nursery planting work in 'Zimba (Table 7) is done by women. Relatively skilled operations such as cotton spraying are undertaken more frequently by women heads and wives than by male household head (women 36% versus men 32% of the work, Table 8).

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 argues that women ought to have more opportunity to learn agricultural techniques for food and cash crops and more access to extension services. She concludes by asking if Malawian women get enough agricultural training given their involvement in agricultural production in the country.

TABLE 2

KARUNGA

A COMPARISON OF THE WORK DONE BY MALE HEADS AND FEMALE HEADS/WIVES IN 49 HOUSEHOLDS IN KARUNGA AND THYOLO 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 per day
Field and crop work on family holding	23,343	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	1,730	0.1	2,300	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	1,050	0.1	29,029	1.6	1,092	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	1.5	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	3.3	27,982	1.0	8,572	0.5	10,006	0.5
Recreation and resting	113,309	6.6	115,427	4.1	92,902	5.0	96,097	4.4
Total	201,242	11.3	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.

ADAPTED FROM BARBARA CLARK, "THE WORK DONE BY RURAL WOMEN IN MALAWI",
 EASTERN AFRICAN JOURNAL OF RURAL DEVELOPMENT, 8:2:80-91 (1975).

Table 1: Occupations of Rural Women in Malawi

	KARONGA		THYOLO		MZIMBA		LAKE CHILWA		NGABU		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 holding (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	6,568	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 activities	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	116,529	1
Social obligation (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	38
Total	419,523	100	301,960	101	202,285	101	282,285	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 funerals.

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

	MZIMBA				LAKE CHILWA			
	39 MALE HEADS		5 FEMALE HEADS/WIVES		23 MALE HEADS		39 FEMALE HEADS	
	Total Hrs per annum	Hrs per head/day	Total Hrs per annum	Hrs per head/day	Total Hrs per annum	Hours per head per day	Total Hours per annum	Hr per pe
Field and Crop work on family holding	37,354	2.0	36,182	1.8	25,411	2.5	33,405	2
Care of Livestock	6,900	0.5	665	x	259	x	5	x
Misc. farm work on family holding	10,451	0.7	5,800	0.2	4,200	0.4	3,123	0
Unpaid farm work elsewhere	7,075	0.5	7,435	0.4	11,011	1.1	4,441	0
Domestic activities (1)	17,424	1.2	61,100	3.0	14,716	1.4	36,391	2
Other work (2)	3,537	0.3	4,664	0.2	11,403	1.1	4,768	0
Being ill and tending sick	6,492	0.3	20,314	1.1	5,192	0.5	665	0
Attending school	-	-	637	x	5,492	0.5	14,894	1
Social obligations (3)	12,626	0.9	13,765	0.7	-	-	67	4
Recreation and resting	55,107	4.1	51,769	4.0	36,077	3.5	59,315	0
Making beer and home crafts	-	-	-	-	5,192	0.5	365	0
TOTAL	162,646	11.4	231,615	11.3	121,504	11.8	170,229	11.

Notes as on other pages

TABLE 4

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)	9,733	0.5	4,322	0.2
Making beer and handicrafts	2,500	0.1	4,570	0.2
Being ill and tending sick	11,363	0.6	17,397	0.7
Attending school, studying	48	x	353	x
Social obligations (3)	5,030	0.3	3,501	0.1
Recreation and resting	39,752	5.1	91,254	3.9
Total	207,219	11.6	275,401	11.7

TABLE 5
HOURS PER DAY SPENT IN PRODUCTIVE ACTIVITY

	Male Heads	Female Heads/Wives
Karonga	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
Moan	5.6	6.1

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 handicrafts were processed together with other kinds of remunerative work.
3) Mostly attendance at weddings and funeral.

TABLE 6

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

	PLANTING		WEEDING		HARVESTING		SHELLING		MARKETING		TOTAL	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Men	1,034	32	3,032	21	3,319	27	133	16	373	33		
Women	2,925	50	7,280	51	7,323	60	564	66	331	29	3,696	25
Children and hired Labour	1,053	18	3,034	27	1,597	13	152	18	419	37	19,423	54
Total	5,012	100	14,146	99	12,239	100	854	100	1,123	99	34,174	100

TABLE 7

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

	NURSERY PLANTING		WEEDING		HARVESTING		CURING ETC.		MARKETING		TOTAL	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Men	720	50	9	44	167	24	1,154	36	53	60		
Women	407	39	7	39	434	64	1,535	47	25	32	2,102	40
Children and Hired Labour	34	3	3	17	92	12	551	17	17	-	2,490	47
Total	1,243	100	19	100	693	100	3,240	100	79	100	5,262	100

TABLE 3
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	1,300	39	1,516	32	6,402	21	10,736	26	1,197	39	20,953
Women	2,209	41	6,127	32	1,150	32	1,692	36	10,909	36	17,200	42	706	23	40,241
Children & Hired labour	1,309	25	7,520	39	1,029	29	1,495	32	12,959	43	13,396	32	1,200	39	21,996
Total	5,639	101	19,320	100	3,567	100	4,703	100	30,430	100	41,420	100	3,103	100	100,190

TABLE 2
PROPORTIONS OF WORK DONE BY MEN AND WOMEN ON KARONGA COTTON CROP (MWAKASANGILE VILLAGE)

	PLANTING		WEEDING		THINNING		HARVESTING		GRADING MARKETING		TOTAL	
	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%	Hours	%
Men	260	70	266	94	128	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

FARMING SYSTEMS AND WOMEN IN MALAWI

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Importance of Women as Farmers

The Department of Agricultural Development of the Ministry of Agriculture is to be congratulated for its decision to expand the activities and importance of the extension staff who focus on women. The new Women's Programmes Section with its expanded plan of work ought to make an important contribution to the Department and to Malawi. Rural women have been seen for too long as only homemakers who need and want home economics skills. The creation of a Women's Programmes Section and the new emphasis on agricultural production training recognize the continuing importance of women as producers.

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 92.4% 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 I (abbreviated from Malawi Population Census 1966 Final Report, page viii).

TABLE I 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	69.3	77.2	77.7
35 - 39	79.7	66.5	79.0	82.8
40 - 44	81.7	67.1	73.1	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 small-holder 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 Malawi Government data by two economists at Chancellor College points 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" (Kydd and Christiansen 1961b page 14) as shown in Table II (from Kydd and Christiansen 1961b Table 9).

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

Table II

INDIVIDUALS WORKING ON THEIR OWN HOLDINGS¹, 1966 TO 1977

EMPLOYMENT GROUP	1966			1977			AVERAGE ANNUAL GROWTH RATES		
	Female ('000)	Male ('000)	Females As % of Employment Group	Female ('000)	Male ('000)	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.

The majority of these women farmers are married but many are heads of their households. More than one of every four (27.9%) of rural households are headed by women (Preliminary Report of the 1980/81 National Sample Survey of Agriculture). These household heads 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 11 of the 35 NSSA survey areas (projects and districts) one third or more of households are headed by women.

The statistics quoted in Table I and II 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.

FARMING SYSTEMS RESEARCH AND WOMEN FARMERS

The importance of women as farmers is established for Malawi. The question that remains is - how may Women's Programmes Officers and other agricultural research and extension staff assist women as farmers to improve their productivity and increase their production? One way to provide such assistance is through the Farming Systems Research programme. The remainder of this paper outlines the programme in Malawi and its relevance for this workshop.

Various people use the term "farming systems research" in different ways. Some people refer to multiple cropping research, while we in Malawi mean a more holistic approach that integrates production and socioeconomic scientists (Technical Advisory Committee 1973; Gilbert, et.al., 1980; Collinson 1980; Hansen 1981b.).

The programme in Malawi is specifically designed to help the Ministry of Agriculture identify high priority problems confronting smallholders in different localities, understand the systemic constraints and opportunities in existing farming practices, and make farm tested recommendations that are appropriate for smallholder conditions and are acceptable to and desired by smallholders. The basic elements in the farming systems approach are:

- pulling together the various research disciplines and extension in a cooperative series of research and development activities;
- understanding the complexities and interdependencies of localized smallholder economies and ecosystems;
- involving the smallholders themselves in diagnosing local problems and constraints, planning alternative technologies, and then testing and evaluating the alternatives;
- proposing gradual modifications to existing farming systems rather than radical new directions; and
- testing the advantages and costs of proposed innovations under actual smallholder conditions and management.

The central concept in this approach is the farming system. Hansen, et.al., (1981) define this as "a complicated interwoven mesh of resources and factors (agronomic, economic, social, cultural, physical etc.) which are managed to a greater or lesser extent by a farmer". This concept includes off-farm resources and factors as well as on-farm ones. The farmer (an individual or family unit) utilizes some of the technology that is available in an attempt to

increase the farmer's or farm household's utility within a given context of accepted preferences, aspirations, and socioeconomic conditions. Utility refers to a broad range of satisfactions. For Malawi's smallholders, for example, utility obviously includes the production of food, both staples and side dishes, for home consumption, as well as the generation of cash income.

The farming system concept reflects the empirical complexity of the conditions surrounding smallholder agriculture and the complexity of the decisions that smallholders have to make. Most of their decisions are compromises in which the farmers balance what they want to do against their limited time and other resources. Other compromises occur because the farmers' goals conflict: trying to achieve higher incomes versus lower risks, for instance. Consequently, farmers often fail to practice what they know to be "improved" practices (in terms of improving yield) because they are simultaneously trying to maintain a number of enterprises (some of which may be off the farm) to satisfy a range of desires or necessities.

There are four general steps in any farming systems research programme: diagnosis and description, design of alternative technologies, testing of the alternatives, and extension (Gilbert, et al) 1980.

The first step is descriptive and diagnostic. There are several goals:

1. Identify and understand the existing local farming systems.
2. Identify recommendation domains, i.e., categories of farms and farmers that are homogeneous enough so that one set of recommendations will fit.
3. Identify relationships within the systems where resources are not used as efficiently as possible. These would include compromises on technically optimum production technologies.

This first step involves reviewing secondary data (information collected by someone else) as well as conducting on-farm interviews and observations. Secondary information gives the research team background information about soil and rainfall patterns, population distribution, economic flows (crop and livestock sales, purchases of inputs, location of markets, availability of inputs), and existing research and extension recommendations and activities. Extension staff are usually able to provide valuable information about local cropping patterns and, since they are in close contact with smallholders, information about smallholder complaints and the ways in which smallholder practices differ from recommendations.

On-farm interviews and observations are an essential activity. These visits to smallholder farms and talks with smallholders permit the research team to appreciate the multiple objectives of smallholder farming and the resultant complexity. Interviewing farmers about their cropping patterns and decisions while actually standing in their fields allows the team to check verbal information with actual observations. The interaction of research staff and smallholders is a consistent feature of farming systems research. Smallholder farmers are at the same time the ultimate clients of this research and actual participants and partners in the research process. Research staff have one type of expertise, and smallholders have another. They have a great deal of experience with local conditions. They know what they are trying to accomplish with their multiple enterprises, although they may not be able to clearly explain their goals verbally. The research team must actively encourage and support smallholder participation in describing, analyzing, prescribing, testing, and evaluating technologies and systems.

-2-

The incorporation of farmers and extension staff into the research is part of the general method employed in farming systems research. Another part of the method is the use of multidisciplinary research teams. Since the unit that is being investigated (the farming system) is complex and includes a wide variety of factors, the research team includes production and socioeconomic staff from various disciplines. Women's Programme Officers should be included

The initial descriptive and diagnostic stage ends with the identification of some high priority targets for adaptive research. Farming Systems work is action-oriented. The team must constantly remind itself that the goal is rapid development of appropriate technology that smallholders can and will use. The single most important criterion for evaluating the success of the farming systems approach is the extent to which smallholders adopt technologies developed by the approach. Innovative technologies that are not adopted are failures. Non-adoption of the innovation probably means it is inappropriate for smallholders.

The second step after diagnosis is the design of alternative technologies. These alternatives are intended to improve the smallholder's exploitation of the biological potential of his or her environment and enhance the farmer's overall utility satisfaction (Collinson 1990). Based on the diagnosis of high priorities for research and on an understanding of the resource capabilities of farmers in the recommendation domain, the proposed alternative are intended to modify the existing system rather than dramatically change it. The reason for this modest aim (gradual modification rather than radical change) is the recognition that smallholders are reluctant to undertake radical changes which entail a lot of uncertainty. Existing technologies may involve some biological inefficiencies but they are tested and well-understood by the local farmers. Innovations by their very nature mean the farmer must try something that he or she does not know from experience.

The third step is testing the proposed alternatives to see how they perform. Although some testing might occur on research stations the preferred form of testing is on-farm and farmer-managed. When on-station trials are needed to evaluate some relationship under close controlled management, they are always supposed to be followed by on-farm trials to test the adaptability to farm conditions. Since we are discussing a complex adaptation to natural and socioeconomic conditions, and a need to integrate any proposed technology into an ongoing complex system, there is a need to have farmers manage the trials. Simply placing the trial on a farmer's land only tests adaptation to natural conditions. It is when smallholders actually manage the trials that they and the research team are best able to measure and evaluate the systemic adaptability of the proposals. Farmer management does entail some changes in trial design. Random bloc designs and designs with multiple repetitions are difficult for smallholder farmers to understand and operate. A more suitable design is when each treatment occurs only once per farm, and each farm is then considered a repetition of the trial.

The fourth step occurs when the tested innovation proves to be a good and acceptable modification of the system. At that time the proposal is handed over to the extension service. Note that extension is receiving a site-tested adapted innovation that has been tested and approved by local farmers as well as by research. If the testing (third step) reveals problems, then the fourth step does not occur until the innovation is finally cleared. The fourth step is facilitated when extension staff are involved with the process of on-farm testing so that they are aware of the reasoning behind the process and the innovation. This accentuates once again the need to continually include extension staff and smallholders in a collaborative farming systems research programme.

Extension is an essential step in the farming systems research process since adoption of the proposed alternative technologies is the single most important criterion by which the programme will be evaluated. This is sometimes signified by adding extension to the programme description and calling it farming systems research/extension. The best way to evaluate the success of the programme is to resurvey the locality two or three years after starting the extension step to test how many smallholders are adopting the alternatives and to analyze any reasons for delays in adoption.

The Malawi programme began in 1981 with diagnostic surveys in four Agricultural Development Divisions (ADDs): surveys in

1. in the Lilongwe Project of Lilongwe ADD (LADD),
2. in the Phalamba Project of Blantyre ADD (BLADD),
3. in the Sulambia plain (Chitipa District) of Karonga (KADD)
4. in the Balaka district of Livonde ADD (LADD)

In each place the process began with planning meetings with the ADD programme manager and with other management and technical staff (primarily evaluation and extension) and agricultural research staff. From these planning meetings and a review of secondary materials, a relatively homogeneous area (in terms of rainfall, soils, and cropping patterns) was chosen in each ADD to be surveyed. Since the purpose of the survey was to rapidly identify systemic characteristics, problems and constraints, survey team members were chosen from the professional and higher and more experienced technical levels. This survey work cannot be left to less skilled or experienced staff.

Each survey team included approximately eight people who were drawn from research, evaluation, extension, and other ADD sections. Each person received a copy of an interview guide that outlined the variety of topics to be covered during the survey. The purpose and methodology of the survey was explained, and it was emphasized that the team was going to learn from the smallholders, not lecture to them.

The actual on-farm surveying usually lasted three days in each area, with the team members being split each day into three or four interviewing groups (two to four people in each group). After the first half day of interviewing, most people felt reasonably comfortable in their new role of listening and careful observing. At the end of each day the groups met together to exchange information and to synthesize as a research team their impressions and beliefs about local farming systems and constraints. At the end of the three days of surveying the teams usually spent from half a day to two days discussing what they had discovered about the locality and what recommendations they had for further research or for extension.

In each area the three days survey was sufficient time for the team to identify the basic characteristics of the local farming systems and to identify a number of ways in which local farmers were compromising the yield potentials of specific crops. The teams were also able to identify some of the reasons why smallholders were unable or unwilling to follow research recommendations. These surveys were action-oriented; they were intended as rapid ways for skilled staff to assimilate the outlines of the local systems, constraints and opportunities. The surveys were successful in that each did identify what they set out to identify. Each survey resulted in insights into the local situations and good ideas about targets for adaptive trials.

Farming systems programmes in different countries have evolved different ways of verifying the truth of what is discovered in the exploratory or rapid surveys. Some country programmes in fact have elected to spend one or more years in exhaustive background surveying before even attempting to identify targets for adaptive research and extension. In Malawi the programme is more action

understood (a process that could take years of complex study), we are setting adaptive trials on the basis of the rapid survey as supported by existing data from evaluation, agro-economic surveys, extension, and Admarc. Our original intent was to conduct formal verification surveys of selected random samples of local smallholders to validate the information and impressions from the first surveys. As it has turned out, most of the areas are project areas with evaluation sections, and all of the areas have a lot of available data on farming outputs. Because of the available data, and because up to now studies of the available data tend to confirm the results of the rapid surveys, we shall continue to set up trials without carrying out formal verification studies.

It is important to note here that the farming systems method is iterative. That means that there is a continual cycling back of information into planning. As trials are conducted, they are monitored for smallholder reactions and to gain more data on the costs and benefits (yields, labor, capital, inputs, cash and food outputs). This new information is fed back into the planning process to modify our understanding of local systems and to modify our recommendations. This feedback process is especially important when we are dealing with such a complex unit as a farming system. Thus, instead of delaying any trial research until all information on local system is collected and analyzed, we will move rapidly into on-farm trials and intensive monitoring to discover more about the systems as they respond to our proposed innovations..

Another basic feature of the approach in Malawi has been the continual interaction among research, ADD management and staff. After each survey there has been a meeting in which the assembled ADD staff had an opportunity to hear the results of the survey and discuss its significance. In both Mlantyre and Karonga this meeting combined the presentation of survey and evaluation data, and these joint presentations were especially effective in permitting ADD management and staff to put together this overlapping data and interpretation of data. Joint meetings of agricultural research and ADD staff are essential to achieve a successful turnover of research recommendation (the fourth step in the general method). ADD staff usually know a great deal about local conditions and farming patterns, and this needs to be included in planning adaptive trials. Extension staff, in particular, need to be involved in setting up and monitoring on-farm trials so that they appreciate the results and are able to correctly interpret them to local smallholders.

OPPORTUNITIES FOR WOMEN'S PROGRAMMES OFFICERS

Of particular interest to this audience is the relevance to Women's Programmes Officers of the farming systems approach. The opportunity exists for the Women's Programmes Officer in each ADD to participate in the diagnostic survey that initiates the process in each locality. A diagnostic survey examines the actual conditions faced by local smallholders (men and women). Participating in the survey enables the Officer to learn for herself the specific local problems and constraints of her clients (women farmers) and to point out to her colleagues in research and the ADD the importance of addressing these clients. Another place to participate is in the planning meetings where adaptive trials and ADD policies are planned and evaluated. The Women's Programmes Officer represents the interests of a specific category of farmers (in fact, the majority), and her active intervention in these surveys and meetings would ensure that this category is taken into account.

Two people from the Women in Agricultural Development Project, which is sponsoring this workshop, participated in February, 1982 in the diagnostic survey of Kawinga Project of U.A.P. Their participation contributed to a much increased understanding of the positions and problems of women farmers in Kawinga farming systems.

Here are some points concerning women farmers that were specifically noted in the Kawinga report.

1. Households headed by women are concentrated in farming systems which are constrained by both labour and capital and utilize no credit nor introduced inputs.
2. Women in farming systems which have adequate labour and capital are good credit risks, whether they are wives or unmarried. Some of these women are already receiving credit, and the use of credit by other women in these systems should be encouraged, along with their receiving the accompanying instruction in correct husbandry practices.
3. Encouraging wives as well as husbands to receive credit is a low cost way to expand popular awareness and experience with introduced inputs and improved husbandry.
4. These wives must be talked with directly by the extension agents. It is not enough to talk to the husbands and expect them to relay all of the information to the wives.
5. An additional benefit of including wives into credit groups or clubs is that the women will be able to call upon this experience to maintain high levels of farming income in the event of divorce or death of the husbands. Otherwise, divorce separation, or becoming widowed might result in the unfortunate women suffering major drops in their farming productivity.
6. Some groundnut production courses (one day at a center or in a village) might be set up solely or predominantly for women. Groundnuts are a problem crop (rosette, pops, etc) that was customarily a "women's crop" just as tobacco is sometimes called "man's crop", and women may continue to grow groundnuts as a cash crop after many men have focused on UCA or "H12 maize or tobacco.
7. In the area around the lakes a major source of off-farm income is fishing and fishing-related trade. Men and married couples have definite advantages over unmarried women since fishing and the fish trade are considered to be men's activities. The usual pattern in married households is for the husband to take part in fishing or fishing-related activities while the wife remains in the village and if the husband's absence is during the cropping season, takes care of crop husbandry.
8. In this same area, the potential for intercropping a cash crop with high value per weight or volume (perhaps grams, chickpeas, cowpeas, etc) in cassava or "local" maize gardens should be investigated. This recommendation is especially suitable for households headed by women who are unable to participate in the profitable off-farm activities related to fishing.
9. Both husbands and wives in married couples and also unmarried women need to be taught improved husbandry for rice and maize. Sometimes different husbandry will be practiced by the same household in different fields, and one reason for this is that extension advice may be going only to one member of the household.

The preceding nine observations from the Kawinga survey report demonstrate the usefulness of having someone (or several people) on the survey team who is especially sensitive to women's needs and constraints. The Women's Programmes Officer is an obvious choice for that person.

There are also some general points about women farmers in Malawi that may be drawn from the Kawinga notes, and that have been

validated by surveys and observations in other districts in 'alawi. These general points may help guide your activities in support of women farmers.

1. Women do not form a single homogeneous recommendations domain, that is, a category of farmers similar enough so that one set of recommendations will fit all of them. Some women are Achikumba; some grow 'H12 and receive their own credit package. Women in different circumstances need assistance that is appropriate to their conditions. Investigate to find out what women farmers in your area need, and you will discover that several different programmes are needed. Some may need help with improved storage so they can store their 'H12, while others may need basic education in when and how often to weed their crops.
2. A consistent feature of households headed by women is a shortage of labour. The reason is evident: most such households have only one resident adult worker, while many married households have two resident workers. The same labour shortage is true for those man-headed households where the man is frequently absent due to off-farm activities or polygynous residence. In considering recommendations for changes in husbandry practices, be aware that the households with only a single resident worker cannot afford to increase their labour input. Since one third or more of the rural households in many districts are headed by women, and other households only have one resident worker (the wife), search for productivity-increasing and income-generating suggestions that do not immediately require more labour.
3. Another consistent feature of households headed by women is a shortage of capital. Again the reason is obvious: households with two adult workers have at least twice the opportunity to earn a cash income as households with only one adult. In addition, married couples often institute a division of labour in which the women concentrate on food-producing activities (full-year farming) and the men work part-year off the farm for cash. Recommendations for improving agricultural productivity that require more capital or enough capital reserve to support a credit risk may not be appropriate therefore for many women farmers who lack sufficient capital.
4. Many women farmers are wives, and wives are often neglected by extension and credit staff who concentrate on the husbands. Encourage extension agents to give advice directly to wives as well as husbands. After all, the wives are probably doing as much or more work in the gardens as the husbands. Encourage credit agents to give credit packages directly to wives as well as husbands.
5. Some cropping or livestock patterns may not promise great returns but may be appropriate for farmers with limited resources. While other extension agents are concentrating on credit packages that promise high returns ('H12, tobacco, etc.), you may determine that many/most of your specific clientele, women farmers, need more modest packages or assistance that is appropriate to their present resources. You must then work out what could be appropriate and advantageous for them. In your search for answers, the farming systems approach may prove useful.

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10. Technical Advisory Committee, The Consultative Group on International Agricultural Research 1978 Farming Systems Research at the International Agricultural Research Centers. FAO, Rome.

The publications noted above as well as others concerning farming systems research and smallholder farming systems are available to interested readers at the Farming Systems Analysis Unit office at Chitedze Agricultural Research Station.

ANITA SPRING

WOMEN IN AGRICULTURAL PRODUCTION PROJECT

1. The AES (Agroeconomic Survey) Report No. 27 on Kawinga shows a higher proportion of adult women compared to adult men in the area due to male outmigration. The sex ratio (number of males per 100 females) for the area is 83 with localized variations from 55 to 100. The low figures are assumed to be related to men being permanently away for fishing. "In fact, during the course of the Survey, villages could be found with few or no men at all. A good number of women expressed discontent that they do most of the farm work alone" (1970:4).
2. The AES Report No. 9 on Lake Chilwa provides a great deal of labour data. Table 1 which is adapted from the report shows the breakdown of category of work by type of worker. In terms of farming, men spend more time than women in garden clearing, miscellaneous farm operations, and unpaid farmwork elsewhere, whereas women spend more time in garden preparation and crop work. Table 2 shows the distribution of garden labour by category of worker and farm operations in hours per acre. Women's total labour in rice, maize and cassava production is greater than men's. Their participation in planting and fertilizing maize exceeds men's as well. Clark's tables on Lake Chilwa (page 31) shows that female heads of households and wives put in more hours in agriculture (field and crop work on family holding) than men (1.7 compared with 2.5 hours per day).
3. The data from the NSSA (National Sample Survey of Agriculture) is in the process of being analyzed. Available data show that 35% of the households in the area are female-headed. This means that in one third of the households the agricultural work is being done by the single adult woman. If a woman receives remittances, she may be able to hire labour. In any case, women are making the farm decisions.
4. An examination of the credit records for MGAs* 7 and 11 shows that there are 1423 credit farmers; 150 (10%) are women. Thirty five of the 52 farmers clubs have women members, but many have only one or two. Seventeen clubs (33%) have no women members. Women farmers who obtain credit usually get one bag of S/A. A few get a bag of 20:20:0 in addition. Twelve (3.3%) of the 361 farmers growing UCA are women; 2 of the 64 farmers growing M12 are women as are 2 of the 69 groundnut farmers. One of the women farmers growing M12 takes credit packages for 7 acres.
5. The MGAs* mostly focus on home economics topics in their courses for women. This is a problem for women farmers. Farmers interviewed in the February 1982 Survey were keenly interested in gaining further agricultural information. Of particular concern was what to do about crop diseases. Women farmers are aware of agricultural problems and trends in the area. One woman married to a man involved in the ADP trials noted that the trials are intercropped but extension demonstrations in the area are monocropped. It should be noted that none of the 80 trial farmers are women. However, investigations of the farm operations of these trial farmers revealed that wives did many of the operations for the trials as they do for all farm operations in the household.

*MGAs are equivalent to Extension Planning Areas (EPAs)

6. Women's participation and interest in agriculture is not matched by extension coverage. During the February survey, some teams made an effort to include women in the discussions and questioning. It was obvious that (1) it is not a usual practice for extension workers to give information to women farmers even in home visits with their husbands and (2) when given the opportunity, women responded with interest and intelligent agronomic questions. Women also expressed a great deal of interest in joining farmers clubs.

7. Dr. Hansen has made a number of recommendations specific to women farmers in the area. Some additional ones are as follows:

- It is suggested that village wide meetings be held in the villoges to instruct people in various aspects of improved agriculture, especially disease control. Farmers clubs can also be discussed and women should be encouraged to join. (Low resource women farmers should be omitted at this time.)
- Extension workers should include wives in their discussions with husbands.
- Women close to Centres could be hired as labourers for the UGA demonstration plots thereby gaining instruction and remuneration.
- Extension classes for women should include agricultural topics and these topics should be the same as the syllabus for men.
- High resource farmers should be encouraged to take UGA and M12 maize packages and women should be encouraged to take groundnut seed packages.

Table 1. Category of Work by type of worker * Lake Chilwa (1970/71)

	Percentages of total hours/year													
	Garden Clearing	Garden Preparation	Crop Work	Misc. Farm Operations	Unpaid Farm Work Elsewhere	Care of Live-Stock	Domestic Activities	Other Paid Work	Beer & Home-Craft	Fishing	School	Social Obligations	Recreation and Resting	Illness & Tending Sick
Male head	1.2	4.9	14.9	3.5	9.1	0.2	12.1	7.4	4.2	2.0	--	5.4	29.6	4.5
Female head, wives	0.7	5.1	16.8	1.8	2.6	--	21.7	2.8	0.5	--	0.1	4.4	34.8	8.7
Hired Male Labour	13.7	29.2	13.9	0.6	0.5	23.5	6.5	--	--	0.3	--	--	6.8	--
Hired Female Labour	--	30.1	7.3	0.3	--	--	2.3	--	--	--	--	--	--	--

* Adapted from Table 5 (a,b) Lake Chilwa Report No 9 1972. Labour is omitted for other Males, other females 15+, Children 14+, and Hired child labour.

Table 2 Distribution of Garden Labour by Operator and Operations

1	hours/acre. Lake Chilwa (1970/71)					Total
	Planting	Weeding	Harvesting	Threshing	Marketing	
RICE						
Male head	35.3	111.5	105.0	3.4	2.1	291.4
Female head & wives	34.0	164.9	143.7	46.5	6.1	400.2
Hired Male	3.9	6.1	22.1	---	---	32.1
Hired Female	5.3	6.5	5.1	---	---	16.9
MAIZE						
	Planting	Weeding	Fertilizing	Harvesting	Marketing	Total
Male head	6.6	31.8	0.0	7.5	---	46.7
Female head & wives	9.5	52.0	1.0	18.3	0.1	81.4
Hired Male	0.1	2.0	---	0.5	---	3.4
Hired Female	---	1.2	---	1.5	---	2.7
CASSAVA						
	Planting	Weeding	Harvesting	Shelling Soaking Drying	Marketing	Total
Male Head	20.7	21.7	13.4	2.8	2.6	61.2
Female head & Wives	22.0	62.7	33.1	44.1	3.4	166.0
Hired Male	0.7	---	---	---	---	0.7
Hired Female	1.4	---	---	---	---	1.4

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I

My purpose here is to make a few introductory comments about public policy - not so much to define it as to indicate certain aspects relevant to this workshop - and then to suggest a few ways in which the women represented here might try to influence the formulation of policy.

By public policy I mean simply those decisions taken and those programmes designed by the Government as a whole or by its constituent Ministries and their departments, which they intend to put in practice. In trying to understand and identify policies we need to look therefore at both pronouncements and actions. Because sometimes people say things they do not mean; sometimes they do things without any formal agreement to do so; and sometimes the very implementation of policy has to adapt and bend the content of its formulation.

II

If we are trying to find ways of having an impact on policy-making the first thing which needs re-emphasis is that the process is continuous - from formulation to implementation and back to re-formulation and adapted implementation. As we move from identification of problems, to research, to laying out alternatives, to decision-making, to programme design, to implementation, to monitoring and back again, we need to appreciate that there are many stages at which you can influence this process. For example, the Ministry may already have laid down policies, but there will always be gaps which require filling in, problems which need immediate response and an interpretation of the lessons learnt during implementation. The way in which problems are presented, and the way in which the actual field research is carried out affect ultimate policy-making. At any of the stages it is possible for middle-level civil servants to have an influence, even if it is undramatic and informal.

In trying to understand a Government's policy towards women it also needs to be recognised that such policy operates across all Ministries. This is particularly important for those represented here who are almost entirely from the Ministry of Agriculture. It should always be kept in mind that in the Department of Community Services (both Community Development and Social Welfare) and in the Ministries of Health, Education and Local Government, and in the Malawi Young Pioneers there are policies of some kind which affect women. This is important both at the central level where you need to co-operate and co-ordinate more closely, and also at the district and village level where there are a number of practical ways in which co-operation would be of benefit to the rural women. For example, the work of Farm Home Assistants, Community Development Assistants and Homecraft Workers could be more rationally dealt with. One also should consider the 4000 plus women who have completed the Malawi Young Pioneers courses. Could they not be better used by the Ministries?.

A third point to note is that a non-policy amounts to a policy. There are Ministries, Departments and officials who claim to have no policy towards women. Let me give an example. I spoke with a Credit Officer in one Agricultural Project who initially expressed surprise at my coming to him.

he said there was no credit policy on women, no need for a policy, and women were getting credit. (As a result there was no need to collect data on this). At my request figures were prepared and it turned out that only 7% of those who take up credit are women. In this area possibly 30% of household heads are women and there are other women farmers as well. So clearly the non-policy as it was being implemented was having an impact, and one which appears to be disadvantageous to women.

Fourth, it should be emphasised that policy is based on the information available and that in turn will depend on how data is collected, who collects it, what questions are asked, how answers are interpreted, etc. So if we do not ask questions about women - and a number of Ministries do not - we are simply not going to generate information about women and we are very likely to go on ignoring them. I am not suggesting that there should be a policy towards women in all departments, but until we have investigated the questions there is no way of knowing whether there should or should not be a policy and what that policy should be.

The next point to make is that policies which remain constant in a situation which is dynamic will not only lose relevance but will over time have consequences which might not originally have been intended. For example, the Population Censuses have shown that in 1966 over 70% of men were working on their own farms. By 1977 this had dropped to less than 50%. This is a dramatic change and points to a very substantial increase in women's agricultural responsibility. For the Ministry this indicates the need to reassess certain programmes. I am sure it was never accurate to perceive of rural women as housewives only, which our extension and training strategies so often do. With the changes in agriculture which the above figures show it becomes even more urgent to reconsider these programmes.

Finally, it needs to be re-stressed that policy is essentially a man's policy. In the civil service men dominate nearly all decision-making and planning posts, and they have done so for a long time. That is a hard fact of life and it means that it is men's perceptions of women that lie behind the decisions which are taken. I do not want to suggest that this can be easily changed. But I do want to suggest that there are ways of trying to increase the influence of women, particularly of middle level and middle-to-senior level women.

III

I now want to look at the factors which have an influence on policy-making.

First, we need to look at the actors, that is the people who in one way or another have some effect on the outcome of discussions, and preparations etc. which lead to decisions. We need to identify them: who are they, their capabilities, experience, training, positions, connections, confidence, etc. We need to do this in order to understand what sorts of people - and for what reasons - are able to influence policy, which positions are more strategic, at whom do we need to aim our proposals and ideas, and whom do we need to win over to our side.

Second, there are the issues. Here it is necessary to understand their relevance, their urgency, their priority, their value and the logic lying behind them. This is important because the issues with which this group is wanting to put forward do provide an important, urgent and logical package.

Putting it most simply these issues relate in a very basic way to questions of food production and equality, and these are matters of which any Government needs to take note. It concerns food production in the sense that it is generally agreed that women are the major producers and processors of food; and it relates to equality in terms of access of women to education, training, job opportunities etc. You may feel quite confident that the issues you are trying to deal with are real.

Third, attention must be paid to power. We need to see where it lies and with whom. This can be formal power, in the sense of superior-subordinate relations. These are important and taken seriously in the civil service. But it is not the only form of power. There are other forms of power which are based on expertise, personal connections, family connections, experience, age, and of course, gender. In most of these aspects of power, women here find themselves at a disadvantage; men are generally senior, older, more experienced, have better established connections, are more familiar with procedures, etc. This will change with time. But in the meantime women who feel they lack power, may broaden their influence by identifying men who wield influence and by creating alliances with them.

Information provides the fourth element. There are two aspects of which I want to take note. First is the need to have the information. This often depends on presentation of findings. But information does not always need to be based on complex, comprehensive and often time-consuming exercises. It can also be provided for example by reports coming in from Extension Officers. Second, you need to have the information available in simple and effective form, ready for presentation at the right time. For these purposes you should keep close contact with those doing research, carrying out surveys, etc. and you need to keep each other informed of your findings; also of case studies, examples, etc. You should consider devoting part of a future workshop to interpreting and presenting data.

Finally, I want to mention techniques of communication. This involves both oral and written forms, and again it can be both formal and informal. So we are concerned with discussion, debate, personal persuasion, report writing, memoranda, etc. Between the sender and the receiver there can be all sorts of distortions based on misperceptions. If men continue to see women agricultural officers as basically homecraft workers under a different guise, then you have a block to communication which you need to remove. If men judge your participation at meetings a privilege rather than a right (and sit there wondering why you are not at home looking after children) then it makes your task more difficult and means that you have to prepare your case more thoroughly.

IV

If we take these factors - actors, issues, power, information and communication - into account, what advice can be given as to how you as women operating at your particular level can influence policy? In any extremely large organisation such as a civil service, or a Ministry of Agriculture - middle-to-senior level officials can all too easily give up trying to have any impact. Collectively they do not seem to carry a lot of weight and individually - and many of you must feel you are often operating in your own-they have even less. But there are some steps which I want to suggest to you. They are of course limited in their nature, but, I hope, worth considering.

I would suggest for a start that this particular group of women from the Ministry at its regular meetings, should put forward well supported proposals to the Ministry.

You need to be polite, of course, but being polite does not mean that you should not be firm. So proposals should be made, your 'representative' at headquarters should convey them, negotiate them, monitor progress, and repeat them if and when necessary. This group should also give support to the setting up of a Women's Co-ordinating Committee representing all the relevant Ministries, and keep it informed of its views and proposals.

A second area where progress can be made is with Evaluation Division of the ADDs. I have spoken with a number of people working in Evaluation, and in general they seemed more than willing to help, in particular by adding new types of questions (which would yield more of the information you need) into questionnaires, surveys, etc., even to carry out special surveys on women farmers. They need to be asked because they can help. So go to them tell them your problem, the gaps in your information, why you need the information, get them interested, ask for their advice, request new kind of questions, etc.

Then there are your male colleagues. I know all are not sympathetic, but at the same time they are not all enemies. I saw serious suspicion change to positive interest during a weeklong workshop on Women's Programmes at Kerong last August. I do not know how effective the suggestions of that workshop will be, but I do know that the attitudes of the men who were there - and nearly all those attending were men - changed markedly. So keep talking, persuading, informing, asking; do not be put off by male strategies aimed at undermining you. Recognise them for what they are, try to be patient, persevere: use good arguments. In regard to this last point you should exchange experiences about the sorts of arguments, examples, facts, cases, etc. which have an effect, and use these in your attempts at persuasion.

Finally, I want to mention the handling of meetings. A great deal of time is spent at meetings, and meetings play a very important part in the process of decision-making. Sometimes they are merely confirmed there. But meetings can also be used to provide information, to indicate problems, to generate ideas, to remind people of views they may forget about. They are important and they need to be used properly. By preparing effectively for meetings you can increase your impact. Read the agenda, prepare beforehand, organise your material, anticipate counter-arguments, get your facts and examples ready, write clear reports. Also seek out allies and potential allies beforehand and talk to them; speak to the chairman. Others are doing these things in order to have their views accepted. This particular group should consider devoting at least part of one of its workshops to an in-service course on communication - report writing, memo writing, presentation and interpretation of figures, public speaking, handling of meetings, etc. Greater facility with all of these will add strength to your arguments.

I appreciate that none of these suggestions are simple to implement; but they are also not impossible. You can try to use them. I also realise that - thinking along these lines - you will be able to suggest other levers of power you can use and sources of influence which you can use. The main point of this presentation is to encourage you to think along these lines.

13 AUGUST, 1980 pp. 18-20

NATIONAL MACHINERY

Where it does not exist, national machinery preferably at the highest level of government, where appropriate, should be established. By national machinery should be understood not only the establishment of central institutions at the national level but furthermore, where appropriate, the establishment of a comprehensive network of extensions in the form of commissions, offices or posts at different levels, including the local administrative level because of its better capacity for dealing with specific local situations as well as working units in the relevant branches of administration, in order to ensure the effective implementation of action programmes ensuring the equality of men and women with a view to:

- (a) Upgrading its capacity and role in national development plans;
- (b) Achieving a more central location within the existing institutional arrangements for the formulation and planning of and strict compliance with, policies and programmes and for monitoring their implementation and evaluation;
- (c) Conceptualizing women's problems in an integrated manner within each sector of development and at the same time developing effective methodologies, policies and mechanisms for affirmative action, where appropriate, to ensure an integrated approach;
- (d) Ensuring the full participation of women in measures taken by government or other agencies.

Effective institutional links between national machinery and national planning units as well as national women's organizations, should be established with a view to:

- (a) Increasing their decision-making powers;
- (b) Increasing their technical, financial and personnel resources;
- (c) Advising on new approaches to accelerate the full participation of women in every sector of the development process, according to national priorities;
- (d) Drawing up national programmes for women in the priority areas of employment, health and education so as to make possible their full participation at the national level. These should also aim at intensifying over-all efforts towards the implementation of technical co-operation among countries and development in the areas of science and technology, water and energy resources among others, in line with the strategy for the Third United Nations Development Decade and the programme of action for the New International Economic Order.

Women should be represented on the basis of equality in all bodies and institutions dealing with development so as to be able to influence national women and their participation in development.

The national machinery should increase the participation of grass-roots organizations, such as women's and youth associations, rural workers' organizations, community organizations, religious groups, neighbourhood associations, as well as trade unions, both in decision-making and in the implementation of projects and in this regard should serve as a liaison unit between appropriate government agencies and grass-roots organizations.

The national machinery should implement effective programmes aimed at ensuring that women participate in and benefit from the implementation, at the national, regional and international levels, of the relevant recommendations of such major conferences as the World Employment Conference;

1. the World Conference on Agrarian Reform and Rural Development;
2. the United Nations Conference on Science and Technology for Development
3. and the International Conference on Primary Health Care.

The national machinery should also provide appropriate channels of communication between women's organizations and other organizations, in order to:

- (a) Help women's groups to obtain financial and technical assistance from international and bilateral funding sources;
- (b) Provide reliable data on the socio-economic and political participation of women to both governmental and non-governmental organizations, including those that act as formal and non-formal educational agencies, with a view to sensitizing society to the importance of the contribution to be made by women to develop and informing the public of the obstacles to equality of opportunity.

To ensure that the national machinery serves its purpose, it is advisable to carry out studies and interdisciplinary research on the actual status of women, drawing on the experience already acquired in some countries with women's studies programmes.

NOTES:

1. See Report of the World Conference on Agrarian Reform and Rural Development (WCAARD/REP), transmitted to the General Assembly by a note by the Secretary-General (A/34/405).
2. Report of the United Nations Conference on Science and Technology for Development, Vienna, 20-31 August 1970 (United Nations publication, Sales No E. 79.1.21).
3. Report of the International Conference on Primary Health Care, Alma-Ata, 6-12 September 1978 (UNIDO/IOD. 255).

ROME, 12-20 JULY, 1979

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

INTEGRATION OF WOMEN IN RURAL DEVELOPMENT

Recognition of the vital role of women in the socio-economic life, and in consonance with the goals of United Nations' Decade for the Women, in both agricultural and non-agricultural activities, is a prerequisite for successful rural development planning and programme implementation. Rural development based on growth with equity will require full integration of women, including equitable access to land, water, other natural resources, inputs and services and equal opportunity to develop and employ their skills. There is also an urgent need to expand knowledge and statistical data on all aspects of women's roles in rural activities and disseminate this information to promote greater awareness of women's role in society.

The government should consider action to:

- A. Ensure Equality of Legal Status
- (i) Repeal those laws which discriminate against women in respect of right of inheritance, ownership and control of property, and promote understanding of the need for such measures.
 - (ii) Promote ownership rights for women, including joint ownership and co-ownership of land in entirety, to effectively give women producers with absentee husbands the legal right to take decisions on the land they manage.
 - (iii) Adopt measures to ensure women equitable access to land, livestock and other productive assets.
 - (iv) Repeal laws and regulations which inhibit effective participation of women in economic transactions and in the planning, implementation and evaluation of rural development programmes.
 - (v) Ensure full membership and equal voting rights for women in people's organizations such as tenants' associations, labour unions, cooperatives, credit unions and organizations of the beneficiaries of land reform and other rural development programmes.
- B. Expanding Women's Access to Rural Services
- (i) Provide agricultural inputs and social and economic services to women through non-discriminatory access to existing delivery systems.
 - (ii) Establish special recruitment and training schemes to increase the number of women in the training and extension programmes of development agencies at all levels including professional fields from which women have been traditionally excluded.
 - (iii) Broaden the range of agricultural training and extension programmes to support women's roles in activities of agricultural production, processing, preservation and marketing.

C. Women's Organization and Participation

- (i) Promote collective action and organization by rural women to facilitate their participation in the full range of public services and to enhance their opportunity to participate in economic, political and social activities on an equal footing with men.
- (ii) Establish systems, with involvement of women's organizations, to identify and evaluate obstacles to women's participation and to monitor progress and coordinate action, especially in such areas as agricultural services, educational services including school enrolment, health and other social services, employment and wages.
- (iii) Revise procedures for the collection and presentation of statistical data to enable identification, recognition and appreciation of the participation of women in productive activities.
- (iv) Promote research and exchange of information and establish and strengthen day care centres and other programmes to facilitate and ease the burden of women's household work to permit their greater participation in economic, educational and political activities, and promote understanding of men's responsibilities to share household duties.

D. Improve Educational and Employment Opportunities

- (i) Ensure educational opportunities of similar quality and content for both sexes and provide special incentives such as reduced fees for increased enrolment of girls and women in schools and training programmes.
- (ii) Promote income generating opportunities for women and guarantee equal wage rates for men and women for work of equal value.
- (iii) Establish and strengthen non-formal education opportunities for rural women, including leadership training and instruction in agricultural as well as non-farm activities, better health care, upbringing of children, family planning and nutrition.
- (iv) Evaluate the possible negative effects on women's employment and income of changes in the traditional economic patterns and introduction of new technology and minimize their possible harmful effects.

ACCESS TO INPUTS, MARKETS AND SERVICES

Use of improved seeds, fertilizers, pesticides and other technological inputs is low in all developing regions and is often confined to a small section. Policies and strategies are needed to develop and promote technologies which enhance use of more productive inputs, better utilization of labour, improved distribution of inputs and services to smallholders and peasant cooperatives, stable markets and fair prices, critical infrastructure adequate public utilities, and improved social and economic services in rural areas.

To achieve these goals of increased productivity and equity, governments should consider action to:

Inputs and Services

- (i) Adopt and adjust prices, policies and interest rates and other related policies to promote increased and more efficient use of purchased agricultural inputs, in particular by small farmers or groups thereof.
- (ii) Establish and strengthen local and regional institutions for delivery of inputs, as well as social and economic services with direct and increasing involvement of organized groups of small farmers and other groups of rural poor, so as to ensure equitable access and fair prices.
- (iii) Ensure timely provision, in a coordinated manner, of the full range of services, including credit, material inputs, extension agro-technical training, marketing outlets and the effective integration of the delivery system at the local level.
- (iv) Experiment with alternative methods of delivery of extension services to development systems best suited to particular countries or regions within countries, and re-orient extension services generally toward the needs of small farmers and cooperatives. Use communication media including audio-visual aids in such programmes.
- (v) Design programmes and institutions for an increased flow of inputs to subsistence and other small farmers and cooperatives, where appropriate, at preferential prices through modified market institutions and through non-market mechanisms.
- (v) Improve the access of rural people to relevant social services, in particular those relating to health and nutrition, and design special programmes for delivery of such.

ANNEX 1

The author asks in an what conditions are women least likely to be disadvantaged by development projects and in what terms and relative to men? The answers are provided are that:

- Women tend to be disadvantaged if resources, and development activities available, are inadequate when, and the economy of their country, thereby leading to a decline in their status, and as assistance, and their development effort.

Annex proposes to examine some current evaluations of women in development projects in order to:

- 1- Identify lessons learned, i.e., what works and what does not work;
- 2- Propose a framework for measuring the impact of development projects on women; and
- 3- Discuss a strategy for collecting additional data from the field and for coordinating evaluations with other agencies for cooperative purposes.

Lessons Learned

Annex reviews 10 (10) projects aimed at increasing production/income, labor and welfare and promoting integrated development in a number of variables, such as education, and community or welfare. The variables by which to judge a project's impact on women are:

- Participation in decision-making either as project staff or the beneficiaries.
- Access to credit facilities by women and girls. Direct access to credit facilities must be distinguished from indirect access in which it is assumed that families benefit as members of families.
- Effects of the project on the status (both economic and social) of women, which refers to the various ways in which women's position in the family or community may be affected by the project either in absolute terms or relative to men.

Summarizing and specifying from the projects studied, she found the following to hold:

ANNEX 2

1. Female participation in decision making at both staff and beneficiary levels is higher when projects are administered through women's sections of government, ministries or other (priv. or public) or established through national women's associations, and through general staff of government agencies.

Problem: More-a-credit projects tend to be on a small scale

2. When women's programmes are affiliated with larger male-dominated institutions, decision making on major policy issues tends to be transferred to men in the parent institution.

Problem: Often male control is at a higher level than female control e.g., at a national instead of regional or local level.

3. The participation of female beneficiaries in project planning and implementation is higher when projects are located in communities with indigenous formal or informal women's associations, or with a strong tradition of community self-help.

Note: In these cases, women in the public spheres are already playing an active role.

4. Within village women's associations or cooperatives, the pattern of female decision making tends to reflect the male power structure of the community.
5. When rural or urban women from the target group or low-income families play an active role in group discussions to set project priorities, they are most likely to identify economic need as their most pressing problem.

ACCESS OF WOMEN TO PROJECT BENEFITS

Some projects aimed at women do not even reach their targets. There may be slippage between anticipated representation of women and their actual participation. Hence it is important to study the access women have to the services and benefits which projects provide.

6. Women have more direct access to project benefits when planners explicitly recognize the prevailing sexual division of labour and design activities that build on women's work and enable them to control their earnings.

Note: The strategy of building on women's work reduces the likelihood that resources will be co-opted by men.

Problem: Sometimes if the enterprise becomes too profitable, men try to take it over.

7. Project activities that fit with prevailing cultural norms and the allocation of household responsibilities attract higher rates of female participation by reducing resistance from the women themselves, from their husbands or fathers, and from the community at large.
8. Women's direct access to project goods and services is frequently limited by customary or legal restrictions on their right to resources such as land, credit, or schooling.
Note: Sometimes these cultural and structural barriers can be penetrated by getting permission of higher status males. One needs to know the proper arguments.
9. The poorest women in the community typically have less access to project goods and services than those who are relatively better off.
10. Shortages of volunteers and of trained female staff pose major obstacles to the recruitment of more women as beneficiaries.

EFFECTS ON THE STATUS OF WOMEN

Many evaluations of projects only measure participation of women in an activity rather than the activity's impact on women, and the consequences to their lives absolutely or in relation to males.

11. The social impact of projects is magnified when women are organized for group action, particularly when they were previously confined to their households or were unused to collective activity.
12. More lasting effects may be experienced when women unfamiliar with organized cooperative efforts begin with a single activity that carries clear and immediate benefits, then move into other activities as their skills and confidence increase.
13. The achievement of concrete economic benefits is a key motivating factor responsible for maintaining group activities.
14. Marketing proves to be one of the most difficult obstacles to creating viable economic enterprises based on the small-scale production of most rural women's projects.
15. If girls and women are not specifically identified in project papers as intended beneficiaries, they are likely to remain invisible in planning and evaluation documents.

Note: If women are not specific targets, projects are less likely to include them for training, participation in programmes, recruitment for positions etc.

ANALYTIC FRAMEWORK

Dixon proposes a framework to evaluate the absolute and relative effects on physical, economic, and social wellbeing of women within and across households. The framework implies a general improvement in the level of living i.e., decreasing inequalities in income distribution, and the capacity to sustain improvements overtime.

FRAMEWORK FOR EVALUATING THE DISTRIBUTION OF PROJECT BENEFITS

Resources that determine	Direct effects on primary beneficiaries*	Distributional effects	
		within households	across households

Physical wellbeing

1. food, water, fuel
2. housing
3. environmental quality
4. medical care
5. personal safety
6. rest and leisure

*Primary beneficiaries or target populations may be defined as classes of individuals, of households, or of localities.

Resources that determine	Direct effects on primary beneficiaries*	Distributional effects within households across households
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Economic Wellbeing

- 7. income/cost of living
- 8. credit
- 9. land and water
- 10. technology
- 11. other assets/debts

Social wellbeing

- 12. knowledge
- 13. power
- 14. prestige

INDICATORS OF PHYSICAL WELLBEING

Most of these are self-explanatory but some cautionary remarks are in order.

1. Access to food, water and fuel-overall quantity and quality consumed by beneficiaries.
Caution: Increasing food production may not increase the household's food consumption.
2. Housing: quality and adequacy
Caution - female headed households are less likely to qualify for housing.
3. Environmental quality - adequacy of sanitary facilities: drainage, air and water contamination, prevalence of environmentally based diseases.
Caution: Men and women may be differentially impacted on depending on their respective activities.
4. Medical Care - curative and preventative services
5. Personal safety- exposure to and protection from personal violence, accident or injury.
Caution: Men and women may be differentially at risk.
6. Rest and leisure - the project's effect on the intensity and the hours available for rest, leisure and sleep.
Caution: Projects may affect men and women farmers differentially such as by mechanizing man's work and not women's or giving women more work on husband's farms while not taking into account women's household and child care responsibilities

INDICATORS OF ECONOMIC WELLBEING

7. Income/Cost of living - who earns the income and how it is apportioned? which household members earn direct economic returns from their labour and which engage in unpaid labour?

8. Access to credit - Are only men eligible? Has project affected the supply and cost? Who are targeted groups?
9. Land and Water - What is distribution within the household? Does project expand or contract women's legal or traditional rights?
10. Technical assistance - to whom given and does it put women "out of business/action" as men take over?
11. Other Assets/debts - Does project undermine women's ownership of certain goods, buildings, capital or cause any debts?

INDICATORS OF SOCIAL WELLBEING

12. Knowledge - What kind of skills have women been given training in? Are the skills given domestic only?
13. Power - Do projects expand or contract women's capacity for autonomous action in either absolute terms or relative to men? (This is in reference to participation in household and community decision-making).
14. Prestige - How do women see their contributions? What kind of self esteem do they have and how do other household members see them?

STRATEGY FOR COLLECTING ADDITIONAL DATA FROM THE FIELD ON WHETHER OR NOT PROJECT IS REACHING WOMEN

Dixon suggests some strategies for collecting baseline data on women's access to material and social resources as a result of development projects. Materials can come from:

- interviews with project workers
- interviews with personnel in related institutions and community leaders
- direct observations of project operations and settings
- group discussion with clients of project
- selecting key informants from project's female personnel
- interviews with samples of households:
 - stratified in a locality
 - stratified and matched with non-participants

Dixon attempts to classify major project characteristics which affect client participation i.e., what works in reaching women according to the characteristics taken from Cohen and Uphof. These are technological complexity, resource requirements, tangibility of benefits, probability of benefits, immediacy of benefits, distribution of benefits, programme linkages, programme flexibility, administrative accessibility and administrative coverage. The important point is that projects can be classified according to the representation of women and their concerns among intended benefits. Dixon suggests that these kinds of classifications must be done in order to evaluate how a project impacts on women.

WOMEN HEADED HOUSEHOLDS

THE FOLLOWING IS ADAPTED FROM MAYRA BUVINIC, MADIA YOUSEF AND BARBARA VON ELM.

WOMEN-HEADED HOUSEHOLDS: THE IGNORED FACTOR IN DEVELOPMENT PLANNING

WASHINGTON D.C. INTERNATIONAL CENTRE FOR RESEARCH ON WOMEN, 1978

THE MYTHS

1. The vision of women as homemakers and childbearers places women in a nuclear family (parents and children) structure where the man is the sole economic provider and the head of the household.
2. Alternately the traditional family in the non-west includes other relatives but with a senior male as the head. This extended family is seen as a welfare system that provides economic protection to its members. It is assumed that women's rights are protected and that women are extended economic support regardless of whether they are single, married, divorced, widowed or abandoned.

THE REALITY

1. The assumption that men head all nuclear households and provides for the economic needs of these households as well as the assumption that the non-western family protects its members are currently undergoing strong questioning.
2. In the United States women are the sole heads of 34% of all minority and 11% of all white families.
3. It is now estimated that between 25% and 33% of all households in the world are de facto headed by women and that often the percentage is much higher in particular regions within a country because of death, desertion, migration and polygamy. In Malawi the national average is about 30% but there are areas as high as 40%. These are de jure figures from the UNDA (see below).
 - (a) In the industrialized West, divorce is a major cause for the rise in women-headed households.
 - (b) In Turkey, Algeria, Morocco and Italy, it is the emigration of male and female labour to industrial centres of Europe.
 - (c) In Africa, it is male emigration to towns and cities in general. In South Africa and Zambia, and Malawi in past, men migrate to work in mines leaving their families behind.
 - (d) In Central and South America female headship is created by women migrating to the cities and by unstable serial unions.
4. The stereotype of the extended family as a welfare system fails to consider changing economic conditions in developing societies.

In many countries male unemployment and male marginality have prevented men from keeping their economic obligations towards their kinswomen. This has contributed to the breakdown of the extended family and the pauperization of female headed households.
5. de jure and de facto heads of households:

The de jure head of household is the legally recognized head. e.g., male-married or widowed female-widow, divorced, separated). The de facto head is someone who comes to assume the functions of economic responsibility for themselves and their children (e.g., married women whose husbands are absent for long periods of time, married women whose husbands have abandoned them).

6.

De Jure Female Heads of Households

Range in 74 countries	10-45%
Average	18%

1978 figures - Continent Averages:

Subsaharan Africa	22%
Central America and Caribbean	20%
North America	16%
Middle East	16%
South America	15%

1981 figures - Malawi (NSSA data)

Malawi	30%
LADD - average:	29%
- LRDP	20%
- Dedza Hills	39%
- Ntchou	38%
- Lilongwe Northeast	22%
- Thiwel-Lifidzi	36%
KRADD - average	15%
- Chitipa	14%
- Karonga	17%
BLADD	
- Phalombo	36%

Definition of head of household

A. General Considerations:

1. Head of household reflects the definition usually adopted by the statistical offices in most countries.
2. Where the cultural norm is male oriented, a son of 12 will be cited as head of household in the absence of a father.
3. In some places in Africa an elderly widowed/divorced woman may be identified as household head though she may not bear economic responsibilities towards household members. This perpetuates the notion that women-headed households are concentrated mostly among older women who look to their children to support them.

- 9 A female-headed or/- based household covers a range of domestic situations. Typically such a household is characterized by the absence of a resident male head. Visible examples are widowed and divorced mothers, less obvious are separated, abandoned and single mother and those households where men are drawn away as migrant labourers for considerable periods of time. Also a resident male head of household could lose his functions as the economic provider. Factors such as low wages, unemployment, limited access to jobs create situations where men are unable to maintain economic support of the household and mother-children families are likely to develop.

1. The widow

Usually the widow is extended the greatest institutional support. However, it is crucial to distinguish between the ideal system and the actual behaviour. In many patrilineal systems a widow becomes part of the property inherited by her husband's family upon his death. She is distributed to male kin. Problems arise in urban situations where it becomes impossible to provide. So the widowed women are left on their own. In societies where women go home to their families, economic pressures limit the amount the family can expend. Worldwide remarriage rates for widows are low. In societies where the age differences between husbands and wives are great, a large pool of widowed women is created who are considered unmarriageable. The discrepancy in the percentage of widowed males and females within an age group shows the magnitude. For example in Cameroon among 45-54 year olds, the proportion widowed is 1% among males and 19% among females. In rural Nigeria it has been estimated that if a girl of 15 marries a man 10 years older and if she survives to 50 the chances are one in two (50%) that her husband will survive until the end of her reproductive period. If she marries a man 15 years her senior, the probability is 30%.

Sometimes widows are considered a bad omen; they are associated with death and no one will marry them or care to have them around.

2. The Divorced Woman

Sometimes divorced/separated/widowed are lumped together. The structural position of the divorcee is ambivalent and institutional support and social acceptance may not be well defined. Usually it is easier for the man to divorce the woman. Remarriage is easier for the man than for the woman. Usually women are expected to assume the financial burden.

3. The Consensual or visiting Union

Low wages and high male unemployment are contributors to the male preference for non-legalized unions and the breaking up of such unions. Women shift to consensual unions to get whatever financial support they can for themselves and their children. Unions break up because of economic hardship. This is a common pattern in the Caribbean and urban West Africa although it is found elsewhere.

4. Single Mother

These women may be disinherited or abandoned by their families for becoming pregnant. Alternately, they may be involved in unstable "mutual consent" type unions. The economic situations can vary from family support to prostitution to desolate poverty.

ECONOMIC ACTIVITY RATES FOR WOMEN HEADS OF HOUSEHOLDS

1. Poverty appears to be more prevalent among families with female headships. The earning capacities of female heads is considerably lower than that of males. Also young working children have low wages. Women who are the most adversely affected by the consequences of marital/union disruption are the least likely to be literate or trained vocationally to enter the labour force in a productive capacity. The earnings of female heads come mostly from the informal sector of the economy and amounts earned in this sector are low.

2. Divorcees are more likely to be working than widows (5 times more likely in Turkey, 4 - Argentina and Costa Rica, 3 - Singapore and Iran, 2 - Syria and Morocco).

SOCIOECONOMIC FACTORS CONTRIBUTING TO THE RISE OF WOMEN HEADED HOUSEHOLDS

1. It is suggested that economic development increases the number of women-headed households.
2. Migration: One of the most prominent trends accompanying modernization in Third World countries has been migration triggered by economic opportunities during the early stages of economic development.
 - (a) The Industrial areas of Europe are pulling men and women migrants from the Middle East and North Africa.
 - (b) In Morocco, many migrated to Europe. A comparison of the 1960 and 1971 censuses showed that the number of households headed by women increased 33%. Fourteen percent of all households headed by women consisted of married women.
 - (c) In Yemen men went to work in the Saudi Arabian oil fields leaving the women under the auspices of younger and older men. The result is that women have to do more work. When the man was present, he did a lot of agricultural work; now the woman carries out almost all agricultural tasks.
 - (d) In Kenya on an irrigated rice scheme men migrate out but return only to organize labour at peak work periods. Women are left alone to tend both the rice and traditional food plots.
 - (e) In many places in Africa, men engage in wage employment away from the farm and return home upon retirement. Women are left in charge of agriculture.
3. Urbanization - In Latin America young women also move to the city seeking work as domestic servants and petty traders. They become involved in "visiting" type relationships or consensual unions.

DISCUSSION TOPICS AND SUGGESTED SOLUTIONS BY PARTICIPANTS

SUMMARIZED BY FRINWA KAYUNI

pic One: AN AGRICULTURAL DEVELOPMENT DIVISION WILL HAVE A DEVELOPMENT PROJECT SPONSORED BY AN EXTERNAL DONOR. WOMEN ARE TO BE GIVEN HOME ECONOMICS AND NUTRITION TRAINING ONLY. WHAT SHOULD BE DONE ABOUT THIS?

SUGGESTED SOLUTIONS

1. Discuss the possibility of integrating agriculture in home economics and nutrition training syllabus with the planners and implement the project.
2. Justify to the ADD's management, the importance of having the above mentioned integration; if women only have home economics and nutrition training, their agricultural production may slow down as may the rate of rural development.
3. Discuss the issue with editors and publishers of the Syllabus for Farmer Training at Day Training Centres (DTCs), Residential Training Centres (RTC), and Farm Institutes (FIs). Justify to them the hazards of giving only home economics and nutrition courses to women.
4. Write papers explaining women's work in agricultural development and dispatch them to the ADD's staff. This is one way they can realize the role of women in agricultural production and support the argument.

pic Two: EVALUATION UNITS COLLECT INFORMATION ON FARMERS. YOU NEED TO KNOW WHAT WOMEN ARE GROWING IN YOUR ADD TO PLAN EXTENSION TRAINING COURSES.

- A. WHAT ARGUMENTS DO YOU USE TO TELL MANAGEMENT THAT IF YOU DON'T HAVE ANY INFORMATION ABOUT WOMEN, THEY WILL REMAIN INVISIBLE AND YOU CAN NOT HAVE PROGRAMMES TO HELP THEM?

SUGGESTED SOLUTIONS

1. Show the Programme Manager data from an ADD that has women's programmes (e.g., Karonga).
2. Explain the various roles in agricultural production of rural women.
3. Emphasize the importance of helping to identify production priorities of rural women. Explain to the management that identification of priorities is not possible unless one has data on the women's agricultural production.

4. Propose women's agricultural programmes and show how they can benefit the ADP as a whole.
5. Explain to the management that one needs to know what women are doing in production in order to know what time and resources are available for income generating activities.
6. Indicate to the management that the women's programme is relevant to other programmes.
7. Ask the Programme Manager to enumerate surveys which have involved mainly women. If he can't, then that will justify to him how invisible women are.

B. HOW DO YOU CONVINCHE MANAGEMENT TO COLLECT DATA ON WOMEN FARMERS?

SUGGESTED SOLUTIONS

1. Put it on your work plan to collect ^{data} on women's production and justify why the data is going to be collected.
2. Ask management agricultural questions concerning women for which it doesn't have answers. In this way you will make management see the need for collecting data.
3. Present to the management agricultural data from evaluation sections which is not disaggregated into male and female farmers. This will make management see that data on female farmers is not available or very scanty.
4. Explain to the management that one needs to know the audience and needs of the ADP in order to develop a programme and evaluate its adaptability.
5. Take the Programme Manager or his representative on field trips so that he may see problems of rural women.

C. WHAT KIND OF DATA SHOULD BE COLLECTED?

SUGGESTED DATA TO BE COLLECTED

The data should distinguish between women farming as part of the family group and women farming on their own. Data on women farmers should be collected on the following topics:

1. Marital status (married, widowed, separated, divorced).
2. Sex of household head
3. Household composition (family size)
4. Types of crops grown and who are producing the crops
5. Acreage and yields
6. Inputs used and how obtained (purchased, credit or own supply).

7. Credit packages and takers
8. Credit repayment rates of men and women
9. Labour available for farming
10. Training in agriculture/education programmes
11. Sources of income and farm income for male and female farmers.
12. Division of labour by crop operations
13. Attitude of extension workers towards women farmers.

pic Three: YOU ARE AN OFFICER IN A SECTION THAT IS PLANNING A CREDIT PROGRAMME . YOU SEE THAT THE OFFICERS AND ASSISTANTS WHO WILL CONTACT THE FARMERS ARE MEN AND THE INITIAL LISTS OF FARMERS TO BE CONTACTED ARE MEN. YOU THINK WOMEN FARMERS SHOULD BE CONTACTED AS WELL.

A. HOW DO YOU INTRODUCE THE TOPIC TO MANAGEMENT/PLANNERS AND CONVINC THEM THAT WOMEN SHOULD BE CONTACTED AS WELL?

SUGGESTED SOLUTIONS

1. Arrange for a meeting with the Senior Credit Officer (SCO) of the ADD to discuss the importance of including women in the credit programme. The SCO with the approval of the Programme Manager will call a senior staff meeting where the issue can be discussed.
2. Collect statistical data on the numbers of women and men involved in credit for several sequential years in your particular ADD. Female farmers who received credit and are contacted by credit assistants generally are few in the ADD and the data should show their low rate of participation.
3. Use the above mentioned statistical data to convince management that the percentage of women who take credit will continue to be low as long as only male farmers receive first priority.
4. Discuss with management the role of women in agricultural production and the importance of including them in the credit programme with management.
5. Discuss with management the ways in which male workers can contact female farmers without arousing suspicions in the society.

B. HOW DO YOU INTRODUCE THE TOPIC OF CREDIT TO WOMEN TO EXTENSION PERSONNEL AND CONVINC THEM TO REGISTER WOMEN?

SUGGESTED SOLUTIONS

1. Arrange a meeting with the Senior Extension Officer (SEO) of the ADD to discuss the importance of registering female farmers in the credit programme. The SEO will call a meeting to discuss the matter with the extension personnel.
2. Discuss the role of women in agricultural production and how credit can help to improve their agricultural production and family welfare with the extension personnel.
3. Show extension personnel statistical data on the low percentage of female farmers and high percentage of male farmers involved in credit. Tell them that despite the women's contribution to agricultural production, they will always remain invisible as long as only male farmers are considered.
4. Collect credit repayment rates for men and women and show the data to the credit personnel. Women tend to have much higher repayment rates than men.
5. Show the credit personnel the data on the percentage of female-headed households, many of which are created as a result of male migration to different places. This justifies the importance of registering female farmers in the credit programmes.
6. Discuss the importance of increasing agricultural production in order for home economics classes to be successful with the credit and extension personnel. Increasing crop production is difficult if women are not issued credit packages.

c Four: AN ADD IS ABOUT TO EMBARK ON A SOYABEAN PROJECT. FARMERS WILL BE GIVEN FREE SEED AND TECHNICAL INFORMATION.

A. HOW DO YOU ENSURE THAT WOMEN AS WELL AS MEN FARMERS WILL GET THE SEED AND INFORMATION?

SUGGESTED SOLUTIONS

1. Educate the male and female extension workers on technical aspects of soyabean production so that both are involved in the dissemination of the technical information.

2. Educate both the male and female farmers in the villages on the technical information (soyabean agronomy) and make them understand that the package belongs to both spouses.
 3. Issue the seed to women through the female extension workers so that both sexes get the seeds. [Caution, the number of male extension workers is many times greater than the number of female extension workers.]
 4. Educate the male and female extension workers who do monitoring and follow-ups that the project is a joint responsibility of the husband and wife so they should both be involved in the project.
 5. Women's groups should be issued seed for their own and demonstration plots.
 6. Train women in soyabean agronomy and not only in soyabean recipes.
- B. HOW DO YOU ENSURE THAT POOR AS WELL AS BETTER OFF WOMEN FARMERS GET THE SEED AND INFORMATION?

SUGGESTED SOLUTIONS

1. The female and male extension workers should be involved in the issuing of seed and teaching of technical information because they know who are the poor and the better off farmers.
2. The workers at the grassroot level should be closely supervised to make sure that they give technical information to both poor and better off women because there is a tendency for extension workers to visit progressive farmers more than poor farmers.
3. The technical information can be imparted through mobile units and local leaders.
4. The extension workers should make home visits to give women the technical information and issue seed, because some women do not go to training centres or attend meetings. Extension workers should make regular follow-ups.

FURTHER REFERENCES AND MATERIALS

The following materials are taken from the Bibliography of Available Materials and are obtainable free of charge from the Office of Women in Development, USAID (Limit 5 to one person). The address is:

Attention: Eleanor Sajeski
Office of Women in Development
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AGRICULTURE / FOOD PRODUCTION

Agricultural Productivity Goals: A Case Study of Male Preference in Government Policy Implementation, by Kathleen Staudt, 1979

Declaration of Principles, FAO World Conference on Agrarian Reform and Rural Development, (Section on Women in Development) 1979

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Sex Roles in Food Production and Distribution in the Sahel, by Kate Cloud, 1977

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Women, Migration and Decline of Smallholder Agriculture by Elsa Chaney and Martha Lewis 1980

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Women's Agricultural Work in Rural Zambia 1979 by Anita Spring and Art Hansen

The Role of Women in Modernizing Agricultural Systems 1981 by C. Safilios Rothschild

APPROPRIATE TECHNOLOGY / ENERGY

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Successful Rural Water Supply Projects and the Concerns of Women, by Paula Roark for A.I.D. 1980

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Credit for Rural Women: Some Facts and Lessons, by the International Center for Research on Women, 1979

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The Memow Case: Case Studies of the Impact of Large Scale Development Project on Women: A Series for Planners, by Ingrid Palmer for the Population Council, 1979

Recognizing the "Invisible" Woman in Development: The World Bank Experience by Gloria Scott, for the World Bank (details of Projects included) 1979

Women-Headed Households: The Ignored Factor in Development Planning, by The International Center for Research on Women, 1978

Income Generating Activities with Women's Participation--A Re-examination of Goals and Issues by Marilyn Hoskins, 1980

A F R I C A

The Information Kit for Women in African by IWTC with ATRCW, 1981

These books may be ordered directly from the publishers. Prices are given in U.S. dollars. It is suggested the interested parties write first for current prices and currency transfers.

Women's Role in Economic Development by Ester Doserup

Order from: Griffin Books, St. Martin's Press, Inc. 175 Fifth Av
New York, N.Y. 10010 (cost \$4.95)

Women and World Development Bibliography by Mayra Buvinic (first annotated bibliography of its kind, includes introductory analysis of women's status in 1976). (Cost \$2.50)

Development as if Women Mattered: an annotated bibliography with third world focus by May Bihani (cost \$3.00)

Women and World Development by Irene Yinker and Michele Bo Bramson (12 essays by various noted WID experts, done in conjunction with IWY Conference, 1975). (cost \$3.50)

Order from: Overseas Development Council, 1717 Massachusetts Ave., N.W. 501, Washington, D.C. 20036

In addition - ATRCW (African Training and Research Centre for Women) of the ECA (Economic Commission for Africa) has a long list of publications that are available free of charge by writing to:

ECA/ATRCW
P.O. Box 2001
Addis Ababa, Ethiopia

Their publications include:

- Women and Development in Africa: An Annotated Bibliography 1978. Bibliography Series
- Women, Law and Agrarian Reform in Mozambique, 1981
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WORKSHOP ON WOMEN AND DEVELOPMENT
WOMEN IN AGRICULTURAL PRODUCTION PROJECT
CHITEDZE AGRICULTURAL RESEARCH STATION
MARCH 9-10, 1982

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Mrs. C. Gonthi - Ministry of Education, P/Bag 328, Lilongwe 3.

NATIONAL WORKSHOP ON WOMEN AND DEVELOPMENT FOR WOMEN'S PROGRAMES
OFFICERS AND OTHERS INVOLVED IN WOMEN AND DEVELOPMENT IN MALAWI.

March 9 and 10 the Library, Chitadze Agricultural Research Station, P.O. Box 158, Lilongwa.

The Workshop is sponsored by the Women In Agricultural Production Project, USAID, headed by Dr. Anita Spring, University of Florida and Chitadze Agricultural Research Station, and will be conducted by Dr. A. Spring except where noted.

TUESDAY, MARCH 9

- 8:00am Opening Remarks: Mr. M. Mwisila, Chief Agricultural Development Officer, Ministry of Agriculture.
- 8:30am Women and Development and Women's Programmes in Malawi: A Brief Introduction
- 9:00am Recognizing the "Invisible" Woman In Development.
- 9:30am Break
- 10:00am Focus on Women and Agricultural Development
General Involvement of African Women in Agriculture.
Effects of Development Projects on Woman Farmers.
Malawian women's involvement in Agriculture.
Film.
- 12:00-1:00pm Lunch - Colby College
- 1:00pm Namow Case: A Case Study of the Impact of Large Scale Development Projects on Women.
- 1:30pm Discussion Groups
- 2:00pm Report Back
- 2:30pm Break
- 3:00pm Current Research on Agricultural Labour in Malawi
Mrs. S. Sackson, Bunda College
- 4:00pm Combining Agricultural and Home Economics Programs for Women: Dilemmas and Innovations
Mrs. A. Lagumen, Bunda College
- 4:30pm Career Structure for Women in Agriculture:
Preliminary Remarks
Mrs. S. Phillipot, Bunda College
- 5:00pm Close

WEDNESDAY, MARCH 10

- 8:00am Special Topics:
Women Headed Households
Women and Handicrafts
- 9:30am Break
- 10:00am National Machinery
- 10:30am Malawian Policies Concerning Women
Dr. D. Hirschmann, Chancellor College
- 11:30am Evaluation Frameworks
Food and Agricultural Organization Recommendations for the
Integration of Women in Rural Development
- 12:00 Lunch - Colby College
- 1:00pm Farming Systems Research and Women in Malawi
Dr. A. Hanson, Chitadze/USAID Project
- 2:00pm Extension Services and Women in Malawi
- 2:30pm Break
- 3:00pm Discussion
- 4:00pm Reports
- 4:30pm Workshop Evaluation
- 5:00pm Close
- 5:30pm Reception - Dr. Spring's Residence