

WOMEN, POPULATION AND FOOD IN AFRICA: The Zambian Case

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I. Introduction

The rapid increase of population and the drastic decline of agricultural production are among Africa's greatest problems, problems which must be solved if overall development is to be achieved. The population of Africa has been expanding at an annual rate of around 3.0 percent. Africa has also the highest fertility rate in the world, with a total fertility rate per women of 6.4 compared with 3.8 for the world as a whole, 4.4 for all developing countries and 2.0 in the developed countries (1). In Zambia, our study area, the average number of total live births amongst Zambian women of reproductive age was 7.4 per women, in 1969 with some provinces such as the Eastern and Copperbelt, having higher fertility rates than others (2).

Over the last two decades, Africa as a whole has undergone a drastic deterioration in agricultural production, increasing its dependence on food imports. Population growth has outstripped increases in food production by nearly 2 to 1 in this period, with declines in average food production per person. Food self-sufficiency ratios dropped from 98 to 86 per cent implying that each African had around 12 percent less home-grown food than twenty years earlier (3).

The general demographic situation for Africa indicates that food production has not kept pace with the rapid increase in population resulting in wide-spread famines in various parts of the continent. The situation described above leads most observers to regard Africa as having a food and population problem. Although Africa, compared to Asia, is very sparsely populated, it is considered as being over populated because population growth, at least during the past two decades, has tended to outstrip the continent's ability to provide adequate food supplies and social and economic services.

The population problem is usually attributed to women as the main cause of the problem because they bear children. As the solution to the problem, two major proposals are propounded: the curtailment

of women's fertility by contraceptive devices and Family Planning Programmes.

In this Paper, we argue that the role of women in the population and food problem has been greatly misconceived. Rather than the cause of the problem, they are viewed in a different light as a key to the solution of the food and population problem. It is argued that although family planning and other measures can and do benefit women greatly, birth control measures per se neither guarantee the solution to the food Crisis nor that of accelerated population growth because of factors that are specific to the African situation. Birth control measures, particularly in rural Africa, are not likely to have the same dramatic results that occurred in Europe and other countries largely because women in Africa face a different situation to that of their counterparts in Europe. It is further argued that since women in Africa form the majority of those involved in agricultural production, they can help solve the food/population crisis if certain measures to improve their status as producers and reproducers of children could be taken. Such measures would also greatly help to combat most of the factors that contribute to high fertility rates in Africa, particularly in rural Africa.

In this study, rather than the current emphasis on controlling women's fertility to reduce the birth rate, we have adopted a two pronged approach which emphasizes the combating of the root causes of high fertility and improved productivity by those involved in food production, particularly the women. This is important in view of the fact that small populations per se are not necessarily the answer to population related problem. As already noted, a country with a small population and a large land mass can be considered as overpopulated if it has no adequate resources and services to cater to the people. In this connection, even if current measures were to succeed in reducing the current birth rate by 50 percent, the population related problems may not necessarily be solved.

The study outlined below is based on data collected predominantly on rural women engaged in peasant farming in rural Zambia. The samples were taken from Mumbwa and Mazabuka districts in the Central and Southern provinces respectively. These are among the most progressive cash crop farming areas in the country. They were deliberately selected with a view to determining the nature of participation by female farmers and the impact of their situation on demography.

The women interviewed are operating under different conditions. Approximately fifty per cent of the four hundred women interviewed, are involved in some kind of agricultural assistance or settlement scheme; the other fifty per cent are struggling on their own. We opted to work with a variety of women farmers, to see, in addition to the objectives outlined above, whether there are differences between unaided women and women receiving assistance and to assess the impact of such assistance on development.

The importance of macro-studies cannot be disputed. However, micro-studies of this nature have their own advantages. Although the issue of women and rural development has been widely researched on a macro level in Africa and the Third World in general, individual country case studies, at least for Zambia, are still lacking. In the case of Zambia, although there is a large volume of literature on the economic, political and social situations, much of it is silent on women's issues. The few recent studies which have been devoted to women's issues do not focus on the relationships between women, population and food production. The undertaking of this type of study is justified by the need for data on which to base development policy and plans. In this regard, the data must reflect the situation and needs of individual countries.

The Paper is divided into two main parts. The first is a brief analysis of the food and population problem in Africa. It tries to trace the root causes of the problem, both historical and in their present form. Emphasis is placed on the current involvement of women in food production in patriarchal structures and the resultant impact on fertility and food self-sufficiency. The second and final section discusses strategies to solve the food and population problem.

II. The Food and Population Problem: Some Roots of the Problem

1. Women and Food Production in Africa: Historical Perspectives

The role of women as food producers has been adequately treated in some recent literature (4). The intention of this section is to give a brief analysis of the relationship of women to productive resources from a historical perspective and the impact of such relationships on demographic and other factors.

(i) The Position of Women as Food producers in Pre-colonial Africa (5)

Women have always played an important role in food production in Africa. Traditionally, the basic Unit of production was the household. The household economy was usually based on male-headed units of extended families. Before the introduction of the money economy, men and women worked together, producing for the household's consumption with a clearly defined division of labour based on age and sex. In addition to joint household production, in the particular case of Zambia women generally had land of their own where they grew crops like vegetables to complement the family food supply. They had considerable control over produce from their own gardens and from the household fields. They could distribute such produce as they wished either through barter for other commodities or as gifts to needy relatives.

Although patriarchy in Africa has existed since Pre-Colonial times, women's position during that period, especially with regard to access to and control of productive resources would seem to have been somewhat different from what it is today.

In pre-colonial Africa, women's position was slightly different especially with regard to their access to such factors of production as land. Both men and women had access to and enjoyed considerable control over land and its resources. This was largely due to the fact that in pre-Colonial African societies, the concept of private ownership of land, especially uncultivated land was not known. Unused land was free and both men and women had access to such land in accordance with the prevailing land tenure system in each area. The right to acquire unused land was generally not determined by sex. Consequently, women played a very important role towards food self-sufficiency in their communities.

In Zambia, the majority of the ethnic groups are matrilineal societies where traditionally women enjoyed a high social, economic and political status. In these societies women could inherit land through their mothers, they could receive land from the village headman or as gifts from their parents. A good number of them such as the Bemba practised uxori-local residence whereby the husband moved to the wife's village at marriage. He received land through his wife and such land was normally regarded as belonging to both man and wife. The woman was also entitled to her own share from the communal land. If the couple divorced, the man went back to his village and left the property with the wife(6).

Among the Tonga of the Southern Province, both uxori-local

residence and virilocal residence were practised depending on the wishes of the couple. If a woman moved to her husband's village, the husband was obliged to give her land. In case of divorce or death of the husband, the woman could go back to her people where she was given land by her family or village head. Generally among the Tonga, as was the case among most other African societies, rights in land were defined chiefly with respect to arable land. Members of the community held rights only in cultivated land. Unused land was free and land ownership was mainly undefined. If there was unused land within a neighbourhood which had not been subject to cultivation, anyone, including strangers, could use it without consulting anyone and the right to receive land was not determined by sex (7). Men and women were therefore equally eligible and many women had considerable holdings.

A very striking situation regarding women's access to land existed among the Lozi of the Western Province of Zambia where the land tenure system seems to have favoured women more than the men. Among the Lozi, daughters were given land for their gardens by their parents. When a daughter got married and moved to the husband's village, she retained her rights to the land during her absence from the village. She also received land from the husband in his village and the produce from her fields were absolutely hers (8). If the husband died or they divorced and she went back to her village, she continued using land held before marriage in her village with full rights. This rule, however, did not apply to sons. If a man moved out of his village, he lost the rights in land and his land could be re-allocated to someone else. If he returned to the village at a later date, he had to apply to the village head for a new piece of land (9), a situation which did not apply to women. In this way, whether a woman was married, single, divorced or widowed, she had easier access to land than the men.

Even among the few patrilineal societies such as the Ngoni of the Eastern Province where the family system was highly patriarchal, women had access to land. Men had strong claim only to land which was already cultivated, and this was the land which they inherited from their fathers, uncles or brothers. Women, as in matrilineal societies had access to unused land which they received in their own right from their families.

These cases indicate that women had some control over land and its products, in traditional African societies. Evidence exists, for example, which shows women distributing their products through trade for their own benefit. Many early European accounts, for example, show

women exchange farm and other products for cloth, beads or copper bangles to decorate themselves. Indeed, women's agricultural produce virtually helped those early travellers in Africa to survive the hardships of hunger (10).

(ii) The Impact of Colonial Reforms and Migration on Female Producers: Socio-economic Transformations Under Colonialism.

Women's rights to productive resources were seriously affected under Colonialism. The Colonial governments introduced new concepts of property, land tenure and new legal systems which were detrimental to the Colonized peoples as a whole and to women in particular. Capitalist features of land tenure and property ownership were introduced to facilitate the governing of the Colonized peoples. The Colonial regimes introduced property laws which were rooted in rights of private ownership of land.

During this period, rights in land became more and more privatized and such land could only be inherited or utilized by direct descendants of the title holder. In countries like Kenya, Zimbabwe and Zambia, the settler system of agriculture was introduced. Through this system, large tracts of land were alienated and reserved for European settler farming. Africans were moved to less fertile areas where they were given new land. This process is often viewed as having adversely affected both men and women equally. This is true only to a limited degree. Whenever land was given out to the resettled families, the rules regulating traditional land tenure were replaced by the land tenure systems of the colonizers. Thus the new land was always assigned to men as heads of households, according to the patriarchal systems existing in the metropolises. Consequently, women generally became dispossessed and their economic position began to decline.

In countries like Zambia, certain areas were not affected by settler farming and resettlements. This was particularly the case in the Western Province (then Barotseland which was a Native reserve) the Northern, Luapula and North-Western Provinces. Women in these areas were affected by factors such as migration and the Colonial reforms in the land tenure system. During the Colonial period the British administration was anxious to secure Zambia (then Northern Rhodesia) as a labour reserve for the mines and settler farms in Northern Rhodesia and countries south of the Zambezi. As in most other African countries, measures like the introduction of Hut Tax were introduced to force men to migrate from the rural areas in search of employment.

Prior to 1953, Women were not allowed to migrate to the mines either to accompany their husbands or in search of employment. During this period, the Colonial administration tried very hard to discourage female migration by enacting specific ordinances which restricted the movement of women and children. These ordinances were strictly enforced by the Native Authorities who were based in the rural areas. Among the Ngoni for instance, women were not allowed to go outside their tribal area without a special pass which was normally never granted to them. Similarly among the Chewa of Eastern Province, women going out of the province were expected to be in the company of husbands or to produce marriage certificates and single women were particularly affected (11). Women were generally not allowed to accompany their husbands to the Copper mines which were the largest employers of migratory labour.

As might be expected, the policy of internment and segregation of the local populations brought a lot of changes in the traditional African economy. It was earlier noted that traditionally, the household economy, was manely based on male-headed units of extended families producing for the household. Within the colonial economy, the new needs and demands for migratory labour undermined the traditional division of economic responsibilities within the family. Because of the massive migration of men from the rural areas, it was mainly the women who kept the fundamental sector of the village economy going. While the men were being absorbed in the new European economy, women were tied to farming and represented the core of the labour force engaged in subsistence farming in the various communities. Employment opportunities for women in the formal sector were virtually non-existent under colonialism.

Contraditions Under Colonialism

Because of the massive migration of men from the rural areas, many households became female-headed, and women formed the bulk of the food producers. However, owing to the patriarchal nature of the colonial regime, the special role that women were poised to play in agricultural production in the new situation, was not recognized and women's potential was never fully tapped - a legacy that was to be perpetuated by independent African governments.

Although peasant production generally suffered under the Colonial regimes, female producers faced a particularly hard time. We have already noted, for instance, that in areas where European settler farming was introduced, land was always allocated to men in the new

settlements. Later during the Colonial period, especially in the case of Zambia, when the regime started to encourage African farmers to produce, productive resources such as credit, agricultural services and other inputs were always directed at the few men remaining in the rural areas (12). In such cases men increasingly began to produce for the market while women continued to produce for the subsistence needs of the household. In areas which had suffered massive male migrations, the female-headed households were completely omitted from access to productive resources.

The rejection or neglect of female producers was a contradiction because, while female agricultural producers exceeded males in numbers, productive resources were directed at their male-counterparts who were in a minority. During this period most areas experienced serious shortages of "able-bodied young males". In the Western Province, for instance, particularly prior to and after the depression of the mid-thirties, "It was a common experience to find 40 to 50 per cent of the adult males absent from the villages at work at any one time" (13). In the Sesheke district, "approximately 60 percent of adult males (were) out of the district in 1938" (14). Areas like the Northern Province usually recorded much higher rates of migration of adult males.

Since women were not allowed to migrate to the towns, at least up to 1953 in the case of Zambia, this meant that almost 100% of the female population was available in the rural areas. Unfortunately, they were the most neglected and under productive among agricultural producers because such productive resources as were available for Africans were always aimed at male farmers who were in a minority. These factors - massive migration of adult males and the inability to recognize female producers' potential role in agricultural production, under the changed socio-economic conditions, was one of the main factors influencing population and food trends among African communities, and which was to continue after independence. Some studies during that period note for example that:

"The outflow of native labourers (mostly young males), from the tribal villages has had serious effects upon the economies of the home areas. The problem of raising sufficient food to support the population, at all times pressing, has been aggravated by this out-migration" (15).

One of the main reasons that was to perpetuate the food and population problem in Africa was the failure by both the Colonial and subsequent independent regimes, to recognize and tap the potential

role women were poised to play in the absence of the majority of men.

(iii) Patriarchy and the Current Situation of Female Producers: Effects on Fertility

Women continue to form the bulk of the food producers in independent Africa. In Zambia, although the numbers of women migrating to urban areas has increased since 1953 when the ban on the migration of women was lifted, the ratio of male migrants, especially those from remote rural areas, tends to be generally higher than that of female migrants. The number of women in wage employment continues to be low compared to men according to 1980 data, only about 7% of women are in wage employment (16). The situation has therefore changed very little since independence. The bulk of women workers are engaged in the informal sector, particularly the agricultural sector. In the informal agricultural sector, women account for some 60 to 80 percent of peasant farmers. In other African countries a much higher proportion compared to men, is involved in agricultural production. In a number of countries like Kenya, Tanzania, Madagascar, Cameroun, Rwanda, and Chad, women in agriculture account for at least 90 per cent of all women workers (17).

Lack of Access to Factors of Production

Despite their important role in food production, women are the least productive in Africa's rural areas. This is largely due to the fact that although direct colonialism has disappeared from independent Africa patriarchy still persists. Patriarchy, as some observers have correctly pointed out, lies fundamentally in men's control over women's labour power. This control is maintained by excluding women from access to some essential productive resources (18). As in the Colonial period, women lack access to factors of production. Most productive resources continue to be male-oriented. Under the capitalist systems of production which most African states inherited from the Colonial past, access to factors of production largely determines the extent to which people control the fruits of their labour as well as their status in society.

1. Land

As already noted, one of the most important factors which affects productivity is land and control of its resources. In Africa today, Land is not only a means of production, it also serves as collateral for credit and as a criterion, for inputs such as agricultural extension,

irrigation, chemical inputs and so forth. In most independent African states, land continues to be assigned to husbands who are recognized as heads of households, so that most African women have limited or no access to land resources and other productive resources.

In the case of Zambia, this may seem as an unfounded allegation in view of the Land Reform that was introduced in 1975. Through the Land Act of 1975, the Zambian Government introduced changes that under certain circumstances would ensure equal access to factors of production like land, for both men and women. It introduced a land reform program that makes unoccupied land "free" for all Citizens of Zambia. But certain conditions persist which limit women's access to land and the extent of their participation in rural development. The main problem constraining women's access to land are the modes used in allocating such land. By the Land Convention Act No.20 of 1975, all land in Zambia is vested in the President, and land, can be obtained only with his consent (19).

Primarily, therefore, the President as owner of the land is the only person with the absolute power of disposition (20). The President, however, delegates his powers to other bodies such as district councils and the Ministry of lands to allocate land on his behalf. It is at these lower levels that problems arise. Some councils, for instance, require the consent of the husband if a married woman applies for land. In most cases husbands are reluctant to give such permission because they prefer the wife to work on their land which is normally dedicated to cash crops. The tendency to grant land title to males, therefore, continues. Consequently, most women work on land that they do not own and their control of such land and its resources is limited. In the sample area, although all the women interviewed regard themselves as farmers and are very heavily involved in agricultural activities, a substantial number of women have no land of their own (Table I).

The incidence of landlessness seems to be highest among women who are not being aided in anyway. In Mumbwa, among women who are not receiving Government or SIDA aid, 52.8 per cent have no land of their own; in Mazabuka, 36.7 per cent of the unaided women have no land. Among the women who are involved in farming schemes which are receiving some aid, the incidence of landlessness is low, but the majority of the women received the land from their husbands. Among the aided women in Mumbwa, 50 per cent got their land from spouses, in Mazabuka 56 percent of the women in aided settlement schemes obtained land from their husbands. The implication, is that even in aided schemes, the source of land for women is not of concern

to the donors except in a few instances (Table 2). As in the Colonial days, land title tends to be directed at the man. The needs of female farmers are rarely of concern.

The lack of access to and control of resources such as land, has contributed greatly to the problems of female producers and these problems have mainly contributed both to the food crisis and the high fertility trends. Lack of land for a substantial number of women who are the main food producers in Africa, is a major constraint on their productivity and their potential to contribute towards the food self-sufficiency of the continent.

Recent research has for instance indicated that there is a relationship between fertility and lack of control of productive resources such as land. Some data based on agricultural communities in Third World Countries indicated that women who have lost access to and control over the productive process tend to display higher fertility rates than women who have not experienced that kind of loss. The shift from communal ownership of land with usufruct to private ownership is regarded as having drastic effects on women. As land passes into private ownership it is argued, women are squeezed out of independent access to land and to the means of production. The marginalization of women as a result of this process, is associated with high fertility. The incentives for numerous children are said to be rooted in a woman's search to gain power in the domestic arena once she has lost her productive resource base in the economic sphere. Among strategies used by women to gain domestic power is "the control of men (through sex and children) and the direct control of children" (21).

2. Agricultural Technology and Labour

In rural Africa, both male and female peasants generally lack access to labour-saving technology. Most literature on farmers' access to technology, however, discloses that female peasant farmers are more seriously affected. The literature indicates that discrimination is practised in the farming technologies employed by men and women. In women's farm work, for instance, the hoe is still the dominant implement. Where draft animals have been introduced into farming, they are driven by men. There has been little mechanization of the work done by women. One study conducted in Botswana where draft animals are widely used, and where women are traditionally the major producers of food stuffs, showed that 59 percent of the households headed by women had no access to draught animals, as compared with

only 28 percent of the families headed by men (22).

In most countries where draft animals are widely used and are owned by men, the men hire them out to the women at ploughing time. As a result, the women suffer from loss of income. Primarily, because they often must pay rentals to the owner of the farm animals and secondly because they are not in a position to choose the most appropriate time for ploughing their own land.

The situation of women in the study area, compared to male-farmers, is not very different from that persisting in other parts of Africa. The Mazabuka and Mumbwa districts, are for example, among Zambia's most progressive farming areas. Mazabuka, in particular, is situated in the Southern Province which has a long and successful agricultural history. During the colonial era, the Southern Province was one of the first areas to experience large scale commercial farming and extensive innovations in agricultural technology. Of particular importance was the adoption of ox-drawn implements that enabled them to increase the acreage under cultivation and to transport their produce on ox-drawn scotch carts. In 1936, for example, a district officer estimated the total of African owned plows on the Tonga Plateau at 43,000 and by the early fifties, more than 50 percent of the African farmers had plows of their own (23). Today, the percentage is bound to be much higher since the area continues to be very progressive agriculturally.

The current situation of women farmers in the study areas, however, indicates that women have been left out insofar as access to technology is concerned. About 70 percent of the four hundred women interviewed reported that they must rent certain types of equipment in order to do their work (Tables 3). The equipment rented by women from farmers in the area consists mostly of tractors, ploughs, farm trucks, scotch carts, shelling machines, cultivators and planters.

The majority of the women (54.5 percent) have to pay fees for the equipment that they rent from other farmers. The women who do not pay for hired or borrowed equipment either are married to the owners or have close relatives, like fathers and uncles, from whom they can borrow free of charge.

Whether they pay for the borrowed equipment or not, women borrowers generally operate under constraining circumstances and are not able to plan for the major events of the agricultural calendar, such as plowing or general soil preparation. They can borrow or rent the

equipment only after its owner has finished using it.

The inadequacy of technology for female producers seems to have a positive effect on their fertility. Labour-saving tools are normally applied to tasks generally done by men, such as land clearing and ploughing. The tasks generally done by women, such as weeding are still labour intensive, yet certain technologies such as ploughs and cultivators tend to increase the acreage that larger labour force that could carry out these additional chores. In the areas surveyed for instance, household generally needed a large labour force. As a result, children are highly involved in farm activities. This is partly due to the fact that peasant households especially those headed by women, generally lack labour-saving equipment. The most reliable source of farm labour is, therefore, one's own family. This need is strengthened by the fact that most households in the area have their own plots of land, so that there is "no labour pool of landless peasants" available for hire (24). Most farmers in the area must therefore rely on their family for labour.

This dependency on family labour causes conflicts in the labour allocation of married women especially those who own their own plots of land or gardens. Whereas husbands mainly grow cash crops, such as cotton, sunflower and maize, women tend to concentrate on food crops in their gardens. Wives are expected to work on their own gardens as well as their husbands plots, in tasks such as weeding, sowing, harvesting etc. Because most men tend to cultivate more than one cash crop, they require substantial amounts of labour. The ability of Women to mobilize men's labour is limited to tasks such as ploughing. The only labour they are able to mobilize fully is that of children, particularly female children for female-related tasks. Many women in the sample claimed that they did all the tasks related to land-preparation (including ploughing in some cases). On the other hand, they were expected to help in weeding, planting and harvesting their husband's fields.

Even if hired labour were readily available, most women could not afford to hire workers since men dominate and control cash-crops while the women are engaged predominantly in subsistence farming. To a great extent, therefore, women can neither completely control their own labour nor mobilize additional labour for their own fields. This situation is made worse by the lack of labour-saving equipment, which helps to account for the fact that women barely produce above subsistence levels.

Lack of access to productive resources like labour-saving techniques and lack of control over one's own labour tends to have a positive effect on fertility in rural Africa.

Recent research has indicated, for example, that the high rate of fertility in agricultural communities is partly a response to women's workloads (25). Numerous children are perceived as lessening the burden of women's tasks in household enterprises domestic chores and productive activities (26). Some data on agricultural communities also indicates that high fertility among rural women results from the perceived economic value of children to the household (27).

The value of children may also be analyzed in terms of the mother's time cost. Older children offer low-cost substitutes for the mother's time. For the women in Mumwa and Mazabuka, the time-costs of child rearing are minimized by the availability of substitute labour from older children and kinfolk (28).

As already noted, many children are also needed for farm work and other essential services. Most women as we have seen, depend on labour intensive methods of production but cannot afford to hire labour. Hence, the need for sufficient household labour. Further, women tend to have a myriad and taxing work-loads, and children seem to feature prominently in the distribution of tasks (Table 4). In the sample areas, virtually all the women interviewed regard themselves as farmers; they are all heavily involved in agricultural activities at all levels, from soil preparation to food processing. Women appear to be very heavily engaged in seasonal activities such as soil preparation, hoeing, ploughing, ridging, stumping and logeburning. It is often stated in literature without any empirical evidence that men tend to be significantly more involved in heavy tasks such as ploughing and land clearing. This study indicates, however, that, at least in the Zambian sample areas, there is a high degree of participation by women in such tasks. Approximately 25.4 percent of the four hundred women interviewed claimed that they do the ploughing on their own fields without the assistance of the husband; 27.7 percent claimed to be doing the ploughing together with the husband; 21.8 percent said that household labour consisting of husband, children and the wife, was used, and only 1.7 percent said that the husband and children ploughed without the wife's participation. The majority of the farmers who own ploughs use Ox-drawn equipment such as ox-ploughs, ridgers and cultivators which women borrowed and which they can handle. Ploughing with powered equipment for the tiny number who own tractors (6 percent in the sample area) is done by men.

The women also seem to be much more involved than men in planting, weeding and applying fertilizers and pesticides as well as in the final stages of production, such as harvesting, shelling and storing of crops. Men's participation in food processing, such as pounding or grinding grain and cooking, is almost zero. Food processing, harvesting and storing are traditionally considered to be "women's work," which probably explains the high degree of women's participation in these areas. But women seem to be participating extensively in activities such as stumping and ploughing, which traditionally have been done by men (Table 4).

In addition to their agricultural activities, women must perform other functions such as fetching water and fuel wood for energy. Traditionally, women are the drawers of water, and they perform the majority of the tasks which require the use of water, such as watering gardens, washing clothes, bathing children, house cleaning and cooking. Women also spend a lot of time fetching wood or other fuel and hauling it over long distances.

In most of these activities, child labor plays an important role either directly or indirectly. As already noted elsewhere, older children provide low-cost substitutes for their mother's time. They help to look after the younger children and perform some household chores while the mother is out in the fields or fetching water and fuel for cooking. Child labor is also directly involved in a number of agricultural and other activities, such as herding cattle, milking cows, cooking, weeding and kraal building. Children are highly valued, partly because of their contribution to household labor, and a woman's desire for a large family is partly tied to the important role that children play in the economic activities of the household, particularly those for which the mother is responsible. Men on the other hand normally prefer large numbers of boys for male-related tasks such as herding, milking and the building of shelters or kraals for animals. In a number of instances, a woman may be required to go on reproducing until the desired number of male and female children has been reached.

The situation of women in rural Africa today, gives a very different picture from that existing in the industrialized countries where fertility rates are very low. In these countries the economic value of children in the homes is minimal. Most household chores like washing clothes, sweeping etc. have been mechanized, while farming activities are the domain of men. The women do not have to walk long distances for water and energy while they have increasingly

participated in gainful employment in which the contribution of children is not required. These and a combination of other factors have contributed to the low-levels of fertility in the developed countries.

The problem of labor in rural Africa is intensified by the high rate of migration to the urban areas or other parts of the province. In both Mumwa and Mazabuka, a high percentage of young men and women are away from home, working in the towns. In the sampled households 61.7 percent of the sons were away from the villages during the 1983-84 period; 67.9 percent of the daughters were also away from home. Most of the young men leave home in order to seek employment or education elsewhere; most of the absent girls are accompanying their spouses who are working away from home.

The absence of large numbers of sons and daughters tends to make older women seek more children to make up the labor force. Women therefore tend to reproduce as much as is biologically possible. The desire for more children is strengthened by a lack of labor-saving technologies which make women's work easier and quicker. In the sampled area 70.4 percent of the women over the age of 49 desired more children, while 77.2 percent desired between six and eleven children. Most women are also married in polygamous unions - another factor causing high fertility rates and which is partly related to labour needs. Although it is sometimes argued that polygamy lowers fertility, in the sample areas at least, families in polygamous unions were found to be just as prolific as the monogamous unions. The incidence of polygamy is very high in these areas. At least 43 percent of the four hundred women interviewed, are polygamous and about 10% are married to husbands with three or more other women (Table 5).

In most cases, one man may have as many babies as the wives in his homestead. One of the main reasons that motivates men to enter into polygamous unions is the need for a large labour force to work on their farms. Most husbands grow labour intensive cash crops such as cotton, sunflower and maize. In the absence of labour-saving tools, the tendency is to engage as much female and child labour, as possible. Most women who enter polygamous marriages are still of child-bearing age; because the tendency in polygamy is to marry new wives who are younger than the existing ones, most new wives are very young - many still in their teens. The incidence of early marriages for women is therefore quite high. As in most Third World Countries early marriages in the area, are, in fact, a major factor contributing to high fertility rates, since women start producing

children at a very early age and continue until menopause. In our study, about 71 percent of the respondents had married between the ages of 14-20 years, and only 29% were married after the age of 20 years.

3. Education and Cultural Factors

Other factors, such as cultural and traditional practices also contribute greatly to fertility trends and pose a big problem to population control in Africa. Lack of education for the rural masses in Africa is one of the main contributory factors in this regard. In Africa, as in most Third World Countries, illiteracy is highest among women. Because of the high rate of illiteracy in the rural areas, couples tend to perpetuate cultural and traditional practices and beliefs towards fertility. Lack of Education denies men and women access to new sources and kinds of information which help to change certain attitudes and beliefs towards fertility.

The impact of education on fertility in Africa has not been closely studied. It is, however, generally feared and assumed that the economic and cultural factors which give great emphasis to fecundity and to the extended family, may negate the expected effects of education on family size. This fear would seem to be confirmed by the fact that urban educated women in Africa tend to register much higher rates of fertility than their counterparts in other parts of the world.

However, although education per se does not necessarily produce a drop in the birth rate, education, like a number of other factors, can play an important role in changing attitude towards fertility, by exposing the people to new sources of information, new ideas and values towards fertility.

It is important, however, to emphasize at this point that it is not necessarily any type or level of education that can result in low fertility. Available data, for instance, indicates that there is little or no correlation between education and fertility when the groups compared are people with no schooling and those who have up to 4 to 6 years of primary education. This may explain the current situation among so called educated urban African women. The majority rarely attain more than 4-8 years of study. The level of education which probably has to be reached to reduce fertility sharply, may be as high as 10 to 14 years of schooling (29). A number of studies indicate that there is a relatively high correlation between high literacy rates and low birth-rates.

The majority of these studies show that in almost every country, the more education women have, the fewer children they bear. For example in a 1972 study from Jordan of women aged 30- 34, illiterate women were found to have an average of 6.4 children while those with a primary school education averaged 5.9. For secondary school graduates, the average was 4.0; and for University degree holders, only 2.7 children. Studies in Turkey and Egypt showed the same pattern. In Turkey, the average number of children ranged from 1.4 for college graduates to 4.2 for unschooled women. In the Egyptian survey, women who had finished university averaged less than four children compared with more than seven for illiterate women (30). Evidence also exists showing that the countries with the lowest birth-rates in the world also have levels of female education. In Eastern Europe and Scandinavia, the Soviet Union, Germany, Britain, Japan, Canada and the United states all have almost equal numbers of boys and girls enrolled in school at least up to Secondary level. Some of these countries e.g. Denmark, Finland, Russia etc, graduate more girls than boys from high schools (31). In Africa, particularly in rural Africa, lack of education contributes to high rates of fertility.

In rural Africa, high fertility among other factors, is still largely anchored in the traditional value system, which socializes women as bearers of children and to favour having large numbers of children. Lack of education is a big factor in perpetuating such value systems. These values and systems are still being passed on to present and future generations. Among the Akan of Ghana, for example, there are fertility rites involving blessings and protection for women so that they may be abundantly fertile (32). One of the prayers in girls' puberty rites goes like this: "May the elephant give you her womb, so that you may bear ten children" (33). Further, because most African traditional societies believe that their dead ancestors still exist and influence life on earth, they hold that reproduction as a means of replacing the ancestors, is a person's primary function; there is a taboo on a person who dies without issue. A case in point is the Bemba of Zambia. Women who died without issue were traditionally buried in a special way (34) which brought embarrassment to the family. The family, therefore, anxiously awaits the birth of the first child as soon as a couple is married and they become more satisfied if the woman proves to be very prolific thereafter. In most African societies, there is also a great attachment to and zeal for many children, not necessarily because of the "human capital" factor but because children bring status. Fatherhood, particularly, is a source of social and political power. Motherhood is also important in many African societies, a woman has

no social status until she becomes a mother and in some traditions a woman ceases to be a "girl" only after she has produced at least four children (35). A childless couple will explore every avenue to discover the causes of their sterility and find a remedy (36).

Traditional practices are still very strong, particularly in the rural areas, where life-styles have not been so drastically altered as in urban areas. Many Africans still live and behave in ways that are greatly affected by their culture or social class. The attitudes of the younger generation toward fertility are still strongly influenced by those of the older generation. Epstein, has shown, for example, how women's attitudes toward fertility may be conditioned along certain lines in different cultural contexts in rural African and Asian societies. She demonstrates how a woman's position in society changes as she passes through different phases of the life cycle.

Her role differs in each succeeding phase: early in life she is trained by older women to accept the social and cultural norms of behavior; at marriage, she must adapt to the role of young wife and mother; as her children begin to leave home and she grows older, the constraints on her behavior lessen and she begins to influence the training of succeeding generations; in the final phase, when a woman's children are married and have children of their own, she perpetuates the cultural traditions and norms (37) including the traditions that advocate high fertility.

This situation persists in rural Africa today. In our study area of Mumbwa and Mazabuka in rural Zambia, only 5.4 percent of the four hundred respondents have more than seven years education most of the women interviewed came from household of ten or more people, and households range from one to thirty members. A recent study on the Mumbwa area showed the average size of households to be 9.5 members (38). More than 70 percent of the women in the study areas desired many children. Among the women receiving aid from SIDA in the Mumbwa area, 56 percent of the women desired at least nine children. Another study based on the Mumbwa area has found that, among women who have had many children, there is still a strong desire for more children. The desire to have more children was held almost equally strongly by all women below the age of 40 years and was the strongest among women aged 15-29 years (39).

Lack of education also adversely affects the productivity of rural women. Agricultural training, like all the other productive resources, is male-oriented. In our study area, for instance, the large majority of

women (73.5 percent) have never attended a formal agricultural training course. The few who have received some training consist mainly of those women who are receiving some kind of aid from donor agencies like SIDA in the Mumbwa district. The SIDA aided Schemes in Mumbwa provide some training and extension for participants in improved crop management. The majority of the women, as already noted, have never attended any training and they depend on outdated production methods.

The result of the lack of access to productive factors is that, although women put in enormous amounts of time and work, their labour is not very productive and this factor greatly contributes to the food crisis in Africa since women are the Chief food producers. In the study area, almost all women (96.2 percent) grow maize, which is the staple food crop. A substantial number also grow other food crops like beans and groundnuts. Although crops like maize, beans and groundnuts can also be grown as cash crops, the great majority of women do not produce enough surplus for sale. The inability of most women to produce a saleable surplus is largely caused by the lack of access to productive resources. These give rise to a number of problems such as the small sizes of the land cultivated by women because of insufficient labour and lack of labour-saving techniques.

Other factors, like lack of credit for desirable inputs, also greatly limit the amount of surplus women can produce (40). The inability to produce a surplus limits women's contribution to food self-sufficiency of the African Continent. This is a serious problem in view of the fact that women constitute the majority of those engaged in food production in rural Africa.

In view of the constraints outlined above, current approaches to population related problems face formidable obstacles and are most likely to have very slim chances of success. There is great need, therefore, to work out new approaches and strategies to solve the population and food problem in Africa.

III. The Need for New Approaches and Strategies

In the fore-going sections, we have argued that several factors including, mainly, unequal access to productive resources contribute to the food and population problem in Africa. Rural women who are the principal food producers are also those who are most negatively affected from their unequal access to factors of production. Most women, as we have seen, have no land of their own and instead work

on land provided by their husband who consequently maintains control over the final product. Additionally, women still depend on inefficient tools of production and most labor-saving techniques are controlled by men, while credit for inputs and agricultural training are male-oriented. As a result, women do not produce enough to feed their families and rarely produce a surplus for the market. Under such circumstances, the food problem is bound to continue amidst a growing population and in spite of large number of women who are already mobilized to contribute to agricultural production but are unable to do so because of the constraints described above.

The important question, then, is what should be done to improve the situation of the rural masses, particularly the women so as to end the food problem and to achieve the desired population trends?

1. Some Current Strategies

Several approaches and strategies to the food and population problem have emerged especially since the World Conference on Population (1974) and the United Nations (FAO) World Conference on Agrarian Reform and Rural Development (1979). These include the "neo-Malthusian", the "Integrationists" and the "radical" approaches, to name only a few.

The "neo-Malthusian" approach views the fundamental problems as a race between population growth and increased agricultural production. The basic solution, according to this view, is population control and the improvement of agricultural technologies (41). In the ensuing population control programs, women are the main targets and are subjected to birth control measures which usually pay little or no attention to the effect of such measures on the women's health. As already noted, this approach to the food and population problem is inadequate for reasons that are partly rooted in the cultural practices of the people and partly tied to women's needs which necessitate large numbers of children. The approach is particularly inadequate because there is often too much emphasis on controlling or reducing numbers while it fails to recognize and eradicate the root-causes of high fertility rates and of the deteriorating food situation.

Since the publication of Ester Boserup's pioneer work (42), there has been an upsurge of literature on "the Integration of women in development", as a strategy. These advocate the integration of women into the current development process generally, and into rural development in particular, in order to boost agricultural production

by giving women equal access to productive resources. The integrationist approach was widely acclaimed by International bodies such as the United Nations and donor agencies (43).

Recently, however, the "Integration of women in Development", approach has been questioned by radical feminists, particularly from the Third World (44). This group of writers argue that currently, Africa is experiencing the type of development known as dependent development, in which the men are not doing very well either. Africa, they point out, is dependent the West for food and other imports; it experiences unequal terms of trade with these countries. Consequently, the situation is deteriorating instead of improving because of these dependent relationships. It would, therefore, be futile for Africa to try and integrate women into a dependent structure which has failed to work. In any case, it is argued, women are already integrated into these structures and special programmes designed for women by aid agencies usually worsen the situation. Since African women are already integrated into the dependent structures (albeit unequally so), what is needed is a radical restructuring of the whole system in order to end neo-Colonialism and the dependent relations which persist between developed and developing nations, as well as patriarchal attitudes and structures.

2. The Problem of Patriarchy

The latter issue, patriarchy, as a problem in the African Crisis should be given more serious consideration than has hitherto been the case. It is possible, for instance, that should radical structural changes manage to remove neo-Colonialism, imperialism and dependency in Africa, the women question and related problems would persist due to patriarchy. It is useful, in this connection to draw lessons from the past. African men and women, jointly fought colonialism and imperialism together. After independence the position of women barely changed while the majority of their male counterparts moved into the positions of the former dominating and oppressive class - the Colonial masters. The subordination of women persists because while direct imperialism and colonialism disappeared, patriarchy, which is the main basis of sexual discrimination, remained. Women are, therefore, faced with the problem of patriarchy as well as that of dependency and neo-colonialism in Africa.

It may be possible, for example, to end the current dependent neo-Colonial structures in Africa through radical changes, but the problems of women would persist even if the current capitalist

structures were to be transformed into socialist ones, because of patriarchy. Patriarchy can, and operates in all forms of social systems. It has been usefully defined as:

"a set of social relations between men, which have a material base, and which though hierarchical, establish or create interdependence and solidarity among men that enable them to dominate women. Though patriarchy is hierarchical and men of different classes, races, or ethnic groups have different places in the hierarchy, they also are united in their shared relationship of dominance over their women; they are dependent on each other to maintain that domination. Hierarchies "work" at least in part because they create vested interests in the status quo. Those at the higher levels can "buy off" those at the lower levels by offering them power over those still lower. In the hierarchy of patriarchy, all men, whatever their rank in the patriarchy, are bought off by being able to control at least some women" (45).

Patriarchy, as the main source of sex discrimination, transcends all other criteria, such as race and class, on which discrimination against women is based. Only some women, in a particular setting, are discriminated against on the lines of race and class. A good example is South Africa where all non-whites, men and women are discriminated against on the basis of race and class. However, Apartheid is so organized that there is systematic domination of women by men in all racial groups and classes as demonstrated in the following table showing teachers' salaries:

	White	Coloured/Asian	African
Men	R322	R235	R132
Women	R288	R212	R123 (1)

The worst affected are black African women, and the picture might re-emerge after Independence. Progressively men are more highly paid in all the racial groups and class categories. All women are discriminated against on the basis of sex. African men held a slightly higher status than their female counterparts. They are discriminated against mainly on the basis of race and class, while the African women suffer all the three main forms of discrimination based on race, class and sex.

This reveals a different situation from that emphasized by Marxist and neo-Marxist analyses which put emphasis on class as the main basis of oppression of both men and women in the oppressed working class. Men and women in this class are viewed as having a similar or equal status. This is the main issue on which Marxism and Feminism, in fact, differ (47). Feminism insists that women are the most oppressed and discriminated against in all classes. Because of the failure to recognize this, Marxism has been labelled as "sex-blind" (48).

Patriarchy penetrates all known Ideologies (49). It persists in radical socialist structures of the World as well as in capitalist systems. Although socialism has done a lot for women, for example, the social structure is pervaded by patriarchy whereby men dominate the positions of power and the subordination of women persists in a number of spheres. A female Russian critic of the prevailing situation in Communist Russia, for example, refutes the allegation that women have achieved equality with men under Communism in Russia:

"Since childhood, the idea that we Russian women are the most fortunate women on earth has been drummed into us: "You have been provided with everything. The Revolution has eliminated all forms of oppression. Equality between the sexes has been achieved". I was quite young when I understood all these claims to be false... The Revolution had not managed to eradicate patriarchy. In some ways women in the Soviet Union are plagued by the same problems which plague women everywhere. We get little or no help from men with house work and children. We are not adequately represented in the political arena (women comprise 25% of party membership; there are no women in the Politburo). Another problem is KGB harassment of women working in the feminist movement. Methods range from interception of mail and interruption of telephone calls or surveillance of apartments... interrogations, threats, arrests, prison sentences and exile..." (50).

Patriarchy, therefore, pervades the major Ideologies of the world - capitalism, socialism and apartheid, to name a few. It can and does operate in all kinds of social systems. It exists in Africa in the current neo-colonial and dependent structures and is bound to continue thereafter. It is therefore important, when working out strategies to solve the problems under consideration, to isolate the real enemy, in order to eradicate the root causes of the problem.

3. Women, Population and Food: Status of Women as a Determinant of Fertility and a Factor of Productivity in Rural Africa.

We have argued in this paper that due to patriarchal structures and attitudes in the distribution of productive resources, the productivity of rural women has deteriorated. This situation is a major contributory factor to the root-causes of the food and population problem.

It has also been stressed that patriarchy, is primarily, the root cause of women's subordination and low status. It is, for example, not neo-Colonialism or Imperialism, that denies women access to land, agricultural services and inputs in independent Africa today, but patriarchal control and attitudes. Whether such resources are provided by local African institutions or foreign sources, they are nearly always directed to men. Such action overlooks the important role that women have the potential to play towards self-sustained development, in particular, towards food self-sufficiency and the desired population trends.

Measures must therefore be found which will attack the root causes of high fertility and low productivity in rural Africa. Such measures will have to take the status of the producers of children and of food, in rural Africa, into very serious consideration. This is important since the status of women is generally considered as a major determinant of fertility (51). The literature on the causes of low fertility, for example indicates that fertility tends to be lowest mostly in those countries where levels of living are highest and where the economic value of children has declined (52). Among the main reasons advanced for the decline in fertility and family size in these regions are changes in the status and role of women. This is true of women from both socialist and capitalist countries. Regions now characterized by low fertility rates formerly had much higher rates. In European countries such as Britain, children were once of high economic value. They participated in farming activities at an early age, and were extensively employed in handicraft and mechanical industries during their early development. But partly due to the general improvement in the situation of the people and particularly of the women, attitudes towards high fertility began to change. One of the main reasons advanced for this change of attitude was the greater degree of participation of women in gainful employment and increased education (53).

In the case of rural Africa, the chief occupation of women is agricultural production. This, as already noted, is still labour intensive and demands a lot of participation by children largely due to lack of labour-saving techniques. Agricultural production can become "gainful" employment for rural women if they had access to the productive resources (54) that are being directed mostly to production of export.

There is great potential for agricultural production to serve as gainful employment for rural women in Africa if patriarchal control of productive resources were eradicated. This would play a big role in enhancing the status of women.

Rural women are already highly involved in agricultural production and, they could help to solve the food and population problem if their work became more productive. Women constitute slightly more than 50 percent of the total population, with a female/male ration of 1.2/1. A very positive aspect of women's situation in Africa today is that while their counterparts in the Western industrialized countries have been booted out of agricultural production, a very high proportion of Africa's women are still involved. As a percentage of women workers, for example, the rate of women working in agriculture is more than 90 percent in Madagascar, Kenya, Uganda and Tanzania; in Rwanda, Chad, the Central African Republic and Cameroon, women in agriculture account for 96 percent of all women workers (55). In Zambia, some 60-80% of women workers are involved in agricultural production (56). Women also spend enormous amounts of time on agricultural work. According to some estimates, rural women work from 15-16 hours per day, especially during harvest time when they spend long hours in farming(57).

Moreover unlike most male farmers, the majority of women concentrate on the production of food crops while men tend to concentrate on cash crops such as cotton, sunflower, tea, coffee, cocoa, palm oil etc. The concentration on cash crops has generally contributed to the food crisis in Africa today, as the continent tends to give priority to the export market while neglecting food production for home consumption. Production for the export market has other detrimental effects on food production for domestic consumption. Export crops absorb the best and most productive resources such as land, water, modern technology and know-how, scientific knowledge and skills. They also have priority influence on imported inputs like

pesticides and fertilizers. Consequently, food for domestic consumption has a secondary role.

The general indication, therefore, is that a substantial portion of the labour force in the rural sector in Africa consists of women. Since women's contribution to food production is so vital, structural changes are urgently needed to eradicate the root causes of low productivity. We have already noted that the subordination of women and the problems that stem from that situation would continue even if neo-colonial and dependent structures in Africa were to be replaced by radical socialist structures, because of patriarchy.

Genuine structural changes would only result if, in addition to the eradication of neo-colonialism, imperialism and dependency, democratic structures are worked out to end patriarchal control. The aim of such structures should be to ensure women's equality with men within the non-dependent structures. Such structures should ensure the equal participation of women in all spheres of social and economic life particularly in decision-making.

This is important since decisions generally influence the trend of change in any society. We have noted for instance, that lack of labour saving devices for women's work is partly contributory to the food problem and to the high fertility trends in the continent. This is partly due to the fact that the available labour saving techniques, often referred to as Appropriate Technology, are male-dominated and male-oriented. This situation largely stems from the fact that the research and policy-making regarding such technologies is mostly done by men from industrialized countries. Such men also bring with them the prejudices about women and technology found in their own societies. Consequently, because of the patriarchal attitudes and control, most of the material on appropriate technology does not deal with women's needs.

This situation is bound to repeat itself when the determination of research priorities and policy-making in this regard, is predominantly done by Africans themselves, and women's needs will continue to be neglected. It is argued, in the case of industrialized countries for instance, that despite the relative advance in the design and provision of labour-saving equipment for women in the home "the appropriate technology movement demonstrates its prejudices about women's capabilities and roles; neglects women's needs and desires, and excludes women from power, decision making and control". Most of the attention is focussed on the traditionally male technologies of energy

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and transportation, while the research and decision-making is under men's control (59). It is felt that if the patriarchal structures were to go and women were equally involved in setting the priorities and making decisions, the needs of both men and women would be addressed and the variety of labour-saving techniques for all sections of society would improve.

Similarly in the case of Africa, if patriarchal structures and control persisted in a new self-sustained independent Africa, population related problems, including that of food, might continue because the root causes of the problem will not have been addressed.

Structural changes aimed at removing patriarchy in all spheres are therefore very crucial. Such structures should ensure egalitarian access to and control of productive resources. This would help to boost the productivity of both men and women. Increasing the productivity of women, in particular, would greatly contribute to the food-self-sufficiency of the continent. Increased productivity and reduced workloads could eventually lead to lower fertility rates as the importance of children in women's economic roles begin to drop. Equal access to such factors as education, will expose both men and women to new production methods in agriculture, as well as to new information regarding fertility. This would help to reduce the cultural barriers and beliefs which emphasize fecundity. Above all, an end to patriarchal structures would contribute greatly towards enhancing women's status, which as we have seen, is a factor in productivity and a determinant of fertility.

Notes:

* University of Zambia, School of Humanities and Social Sciences - Department of African Development Studies - Lusaka/Zambia.

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4. Notably S. Muntemba: "Women as Food Producers and suppliers in the 20th Century: The Case of Zambia", Development Dialogue, 1982: 1 - 2.

5. This section relies predominantly on oral information; it also draws on some studies on Zambia and other parts of Africa in particular: S. Muntemba, op.cit.; J. Bukh, The Village

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34. A childless woman was buried with a piece of charcoal inserted into her anus.
35. Cutrufelli op. cit.
36. Cutrufelli, op. cit.
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46. Source: Women's International Democratic Federation, "Appraisal by the Women's International Democratic Federation of Progress Achieved and Obstacles encountered in attaining the Goals of and objectives of the United Nations Decade for Women: Equality, Development and Peace in Africa," Paper presented at the Regional Intergovernmental Preparatory Meeting for the World Conference to Review and Appraise the Achievements of the United Nations Decade for Women Equality, Development and Peace; Third Regional Conference on the Integration of women in Development. (Arusha, Tanzania, 8-12th October, 1984).
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APPENDICES:

Table 1 - Whether Earning is Done on Own Land

	Total	Mumbwa		Mazabuka	
		Aided	Unaided	Aided	Unaided
Yes	69.4	100.0	40.6	89.0	63.3
No	28.9	0.0	52.8	11.0	36.7
No Response	1.7	0.0	6.6	0.0	0.0

Table 2 - Sources of Land

	Total	Mumbwa		Masabuka	
		Aided	Unaided	Aided	Unaided
- Given by Husband	37.0	50.0	10.4	56.0	37.2
- Given by Father	17.5	21.2	12.3	8.0	26.0
- Given by Headmen/chief	21.1	16.7	47.2	12.0	10.7
- Bought	0.7	0.0	0.9	1.0	0.7
- Inherited	7.1	3.0	9.4	3.0	10.0
- SIDA provided land	2.6	7.6	3.8	1.0	0.7
- Other	7.1		3.8	19.0	4.0
- No response	6.9		12.3	0.0	10.7
- Totals	100.0	100.0	100.0	100.0	100.0

Table 3 - Number Borrowing Farm Equipment

	Total	Mumbwa		Mazabuka	
		Aided	Unaided	Aided	Unaided
Yes	70.4	70.8	71.7	72.0	64.7
No	28.4	16.7	28.3	27.0	34.7
No Answer	1.2	4.5	-	1.0	0.6
	100.0	100.0	100.0	100.0	100.0

Table 4:

Type of Stumping & respon- sibility	Burning logs	Hoeling	Ploughing, Ridging & Harrowing	Planting	Weeding	Ferti- lizers	Applying Pesti- cides	Harves- ting	Storage	Shelling	Bagging	Trans- portation to markets	Pounding/ Grinding grain	Cooking	Milking	Herd- ing Cattle & Goats	Kraal Building
Husband	6.4	1.2	2.1	1.4	8.5	8.7	1.9	8.5	8.7	8.7	8.7	6.4	8.8	8.2	16.4	16.1	19.4
Wife	28.6	29.9	25.1	28.4	29.9	28.4	16.1	26.3	26.5	25.8	24.2	14.7	56.2	58.3	2.6	2.1	1.9
Husband & wife	25.8	27.5	27.7	28.8	28.8	25.4	21.1	28.9	28.7	28.9	28.2	17.5	1.2	8.5	4.8	4.3	3.4
Husband & children	1.9	9.8	1.7	8.9	8.5	8.2	8.5	8.5	8.7	8.7	8.2	6.6	8.5	8.5	15.6	16.4	16.1
Children	3.3	9.8	1.2	1.2	8.9	1.2	1.7	8.9	8.7	8.7	8.7	3.1	1.9	2.1	15.2	16.4	11.6
Wife & children	8.5	18.9	18.2	11.4	12.3	12.3	7.6	11.8	12.6	11.6	11.6	6.6	35.5	35.1	1.4	1.2	1.7
Husband, wife & children	15.2	21.8	21.1	22.3	22.7	28.1	16.4	22.8	22.8	22.8	28.9	13.3	8.8	8.2	1.7	1.4	1.7
Relatives	6.4	3.1	3.6	1.4	8.9	8.9	1.2	1.4	1.4	1.4	1.4	4.8	2.4	2.6	7.6	8.3	8.5
Hired Labour	5.7	2.8	5.9	4.8	2.8	2.6	3.1	4.3	4.8	4.8	4.7	11.4	8.2	8.2	8.5	8.7	1.7
No Response	6.2	8.9	1.2	8.9	1.7	16.1	38.6	3.3	2.6	4.8	7.3	16.4	2.1	8.2	35.1*	33.2	33.6

* Mostly those not using fertilizers and pesticides.

Table 5 - Number of Other Wives in Polygamous Marriages

Number of Wives	Percentages
No other wife	55.9
One other wife	5.5
Two other wives	16.5
Three other wives	6.2
Four other wives	2.7
Five other wives	0.5
Six other wives	0.5
Seven other wives	0.2
Eight other wives	0.2
No response	11.8

RESUME

l'étude analyse d'un point de vue historique le rapport femme/moyens de production et souligne l'effet sur la démographie. Remettant en question l'opinion qui fait de la femme la principale cause du problème démographique, l'auteur affirme que l'on a très mal compris l'incidence de la femme sur la situation en matière de problèmes démographiques et alimentaires. Elle est la solution aux problèmes démographique et alimentaire et non leur cause. L'auteur soutient en outre que dans le cas particulier de l'Afrique, des efforts, tels que les mesures de contrôle des naissances, déployés actuellement, ne constituent pas nécessairement une solution à la croissance démographique galopante, ni à la crise alimentaire. Deux processus connexes, la privation de l'accès aux ressources productives pour les femmes et le développement concomitant du patriarcat consécutivement aux mutations socio-économiques survenues sous la colonisation, constituent, entre autres, les origines historiques du problème alimentaire et démographique. Les changements apportés au régime foncier, l'introduction des cultures de rapport et le système des migrations de travailleurs sont les plus importantes de ces mutations. Toutes ont apporté à leur tour des changements dans la division sexuelle du travail et ont fini par saper le secteur de la production vivrière qui incombait désormais aux femmes. Ces différentes situations n'ont cessé de se dégrader en Afrique après l'indépendance. La migration masculine et l'agriculture commerciale a modifié les besoins en main-d'oeuvre, et l'affectation de la main-d'oeuvre familiale à ces différentes tâches. Le volume de travail revenant aux femmes s'accrut car elles devaient à la fois se charger des tâches productives et assurer la reproduction. Par conséquent, pour satisfaire à la demande en

main-d'oeuvre infantine il fallait maintenir les niveaux de fécondité élevés. Les facteurs connexes contribuant à maintenir hauts les taux de fécondité sont le mariage précoce, la polygamie, l'analphabétisme et la perpétuation de pratiques culturelles et traditionnelles qui mettent l'accent sur la fécondité.

S'appuyant sur des études de cas portant sur deux provinces de Zambie, toutes les deux spécialisées dans l'agriculture commerciale, et exploitant des données relatives à d'autres régions d'Afrique, l'article démontre que le problème alimentaire et démographique en Afrique tient essentiellement au fait que l'on n'a pas reconnu les potentialités de la femme en matière de production agricole. Cette lacune, qui émane d'une conception patriarcale est la plus grosse pierre d'achoppement sur la voie de l'auto-suffisance alimentaire en Afrique.

En conclusion l'auteur de l'article réclame des changements structurels qui entraîneraient la suppression du patriarcat et favoriseraient par conséquent l'accès en toute égalité aux ressources productives, et leur maîtrise, ainsi qu'une égalité d'accès à l'éducation et à la formation. Une telle mesure, affirme l'auteur, réduirait les taux de fertilité et accroîtrait la productivité en réduisant l'ampleur des tâches imparties aux femmes ainsi que l'importance du travail confié aux enfants.