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TOWARD STRATEGIES FOR STRENGTHENING THE POSITION OF WOMEN IN FOOD PRODUCTION:

An Overview and Proposals on Africa



United Nations International Research
and Training Institute for the Advancement of Women
(INSTRAW)

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at the request of INSTRAW



**United Nations International Research
and Training Institute for the Advancement of Women
(INSTRAW)**

AN OVERVIEW AND PROPOSALS FOR AFRICA
IN FOOD PRODUCTION
THE REGION OF WOMEN
TOWARD STRATEGIES FOR STRENGTHENING

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Introductory Note

The United Nations International Research and Training Institute for the Advancement of Women (INSTRAW) aims to promote through research, training and information activities, the full participation of women in the development process. This requires that the Institute monitor closely the current debate on development and international economic relations, and participate in the ongoing search for meaningful ways to address development issues in order to contribute through its work to the fulfillment of the objectives of the International Development Strategy for the Third United Nations Development Decade.

Pursuant to the search for solutions to development problems arising from the present world economic situation, it has been found necessary to study the impact of this situation on the role of women in the development process focusing on the interdependence between the international and national levels of the economy, thereby helping in taking into account women's participation and requirements in development processes.

In the course of developing this idea, INSTRAW undertook numerous activities, including a brainstorming session, which was organized at United Nations Headquarters on 25 July 1982 to solicit views of the specialists on the subject from within and outside the United Nations and a review of United Nations resolutions and decisions relevant to the status of women and their role in development, particularly, those adopted by the General Assembly, the Economic and Social Council and the Commission on the Status of Women, in order to determine the areas which needed further in-depth study.

As a result of surveying the area of women and development, it was found that the aspects to be further developed are: (a) to review and analyze the present model of development and different approaches and concepts so far used in these development strategies; (b) to identify the economic dimension of actual development theories and approaches especially where they merge into the social perception of the work and life of women; (c) to assess the benefits and losses to women that derive from the economic and social changes in present-day society; (d) to examine the linkage between the international and national dimensions, taking into consideration the economic, social and cultural aspects as they relate to women (e) and to examine problems emerging from the world economy and influencing national economic and social policies which affect the role, status and well-being of women.

The Board of Trustees of INSTRAW at its Third Session in January 1983 decided that the Institute should conduct a series of research studies on the role of women in international economic relations, concentrating particularly on the analysis of the interlinkages between the macro and micro economy and their impact on the role and status of women.

In this respect, the United Nations General Assembly requested that the Institute's activities continue to contribute to the full integration of women in the mainstream of development and that due attention be given to the interdependence of the micro and macro levels of the economy and its impact on women's role in the development process.

This programme has, therefore, been carried out by the Institute in two successive phases. The first phase consisted of the preparation of a series of

research studies on industry, trade, agriculture, technology, and money and finance, examining the interlinkages between the macro and micro economy and their consequent impact on women in collaboration with a number of internationally renowned academic and research institutions. The second phase consists of a number of meetings including a high-level meeting of eminent personalities to review the studies and to consolidate them into a publication of women in international economic relations.

In preparing these studies, the Institute drafted jointly with the collaborating institutions and individuals the outline of the studies, reviewed the various drafts of the studies and convened a consultative meeting in September '84 of the authors of the studies and experts in international economic to review and finalize the studies.

This study entitled "Toward Strategies for Strengthening the Position of Women in Food Production: An Overview and Proposals for Africa" is one of the series of studies prepared under this programme. The study examines the possibilities of strengthening the position of women in food production, taking the African case as an example. In this respect, it places the role of women, who traditionally have been the backbone of agriculture and food farming, within the context of the stagnation, negative growth and deterioration experienced by the African food and agricultural sector over the past two decades, and seeks to highlight the importance of formulating strategies which enhance women's agricultural productivity as an integral part of strategies to resolve Africa's food problem.

The views expressed in this study are those of the author, Dr. Achola Pala Okeyo, of the University of Nairobi who worked in close collaboration with the Institute in its preparation and to whom the Institute wishes to express its gratitude.

Part I

Introduction

Over the past two decades, African national economies have experienced stagnation, negative growth and even deterioration in their food and agriculture sector. For the majority this period has been characterized by shortfalls in food production leading to periodic and sometimes protracted shortages and even outright hunger. As technical advances toward the improvement of agriculture have not adequately responded to growing food needs a number of countries in the region, continue to depend on commercial food imports, food aid and external funding to offset prevailing food deficits. Such ameliorative efforts do not present a lasting alternative to the majority of African countries, particularly to the least developed countries of which Africa has twenty-two, and countries lacking oil and mineral resources to boost their foreign exchange reserves. The African food problem can be explained in part by over-dependence on the export of basic raw materials and minerals which makes the continent's economies subject to fluctuations in the world market with far reaching and detrimental consequences for national development. A number of other factors have also contributed to the region's food problems.

Reviewing the African food problem, Carl Eicher (1982) sees five definitive features framing the boundaries of the continent's food problem. These are: 1) low population densities (comparative to Asia), which constraints the use of available arable land for agriculture; 2) relatively small economies which experience special difficulties in consolidating the human and financial resources needed to administer scientific initiatives in agricultural production; 3) a colonial legacy deeply embedded in the structure of agriculture resulting in the low priority placed on food agriculture by national policy; 4) agrarian-based societies with small farms, the performance of which greatly influences the overall gross domestic product; and 5) harmful environmental conditions (.e.g. the presence of tsetsefly) which limit the expansion of agriculture.

An regionwide recognition of the continent's inadequate food and agriculture situation, at least at the political level, is to be found in the now well-known Lagos Plan of Action for the Economic Development of Africa 1980–2000 adopted by the Organization of African Unity states in 1980. The declaration, whose full impact at the national and regional levels is yet to be felt, acknowledges the need to reorient national development priorities by giving preferential attention to the food and agriculture sector both in funding and in the improvement of human resource capabilities within countries. This is in order to eliminate the basic weakness in African agriculture namely, low production, low productivity and inadequate technological capacity to improve agriculture. Moreover, the declaration calls for a restructuring and expansion of intra-African trade and exchange of resources for development as well as a commitment toward self-reliant development strategies favouring endogenous development alternatives up to the year 2000 and beyond.

This paper is based on the premise that inadequate attention has been paid to the role of women in the search for solutions to Africa's food problems. Yet in Africa, perhaps more than in any other region of the world,

women have traditionally been the backbone of agriculture and food farming. As their productivity in agriculture has increasingly stagnated or become weakened by transformative market forces, over the years, this essentially means decreasing productivity in agriculture and food production.

It is now therefore the moment for African governments to view the deterioration in African food situation as a symptom of decreasing productivity of women brought about by the promotion of commercial production at the expense of food farming and low investments in the food sector. Furthermore, it is time now to take the bold step to invest in improving the position of women in agriculture as an integral part of the strategy to improved food production throughout the continent.

This paper is based on a review of the author's own previous research and the secondary sources listed in the bibliography.

Part I states the objective and scope of this paper.

Part II reviews key analytic issues and constraints in women's participation in agriculture and food production.

Part III enlarges on Part II by examining the impact of key transformative forces on women's agricultural roles.

Part IV presents some policy options for strengthening the role of women in national food production systems; and,

Part V proposes some areas for follow-up by INSTRAW in the broad question of food and agricultural development.

Part II

The Role of Women in Food Agriculture: an Overview on Key Analytic Issues and Constraints

A. The Division of Labour by sex in Agriculture

A growing body of research and information has established that women play a crucial role in African agriculture. They constitute the backbone of food and agricultural production in small farm areas and provide a substantial proportion of family labour resources for cash crop production. Nor is this a recent phenomenon: women have been key in African agriculture for a period that is synonymous with the adoption of hoe agriculture and sedentary life styles by many of the African communities during the last five centuries.

By 1928, Baumann was already observing that women were growing the oldest root crops, kitchen vegetables, spices and were also acquiring new ones. In a study reviewing the division of labour by sex in African hoe culture (i.e. farming systems using the hoe as the key farm implement) he noted that women worked on the farm all year round while men performed mostly pre-planting tasks of clearing bush which occupies only a small part of the agricultural year. At that time, he observed too that there was already the tendency for men to be engaged in fruit-trees farming such as bananas, cacao, kolas. Thus over half a century ago men were already investing more time in the farming of crops which could be exchanged for a cash value in the market, while women continued to use the hoe and limited technology for food farming, a largely non-market activity.

Another important early study (1938) demonstrates the linkage between women's role in agriculture and the process of agricultural transformation.

Among the Kipsigis of Kenya, Peristiany noted that the village community or *kokwet*, operated as a co-operative economic unit. According to their myths, when the cattle were dying of thirst during a drought, the women found grain of elusine growing in elephant dung. They tasted it and found that it was sweet, so they planted the grain, and from that moment the Kipsigis were stronger than their neighbours.

Within the *kokwet* family agricultural work was clearly divided between men and women, both in terms of labour and decision making regarding disposal of crops. There were three distinct types of fields:

- a). A *kabungut*, was a small vegetable garden planted and cultivated exclusively by a woman and her daughters. They grew vegetables which formed a part of the food cooked with blood and meat;
- b) An *imbaret a' mossop* (field of the house) was owned by each married woman. In other words, each household had its own field. Work on this plot was done mainly by women assisted by relatives and members of the *kokwet* involving husbands in erecting fences and sowing. Grain from this field was stored in a separate granary over which the husband had no authority to take supplies for beer for his friends or sweethearts. Crops from the *imbaret a' mossop* fed the household, usually an independent polygynous unit, and were used for events concerning members of the family, such as initiation of children;
- c) An *imbaret ab soi* or *kapande* was the man's field. Before the introduc-

tion of maize it was sown with peek and millet, but by 1938, maize gained in importance and *kapande* had almost come to mean a husband's fields. These crops were mainly used to entertain men friends and to trade with commercial stores in the vicinity. They were stored separately, and cultivation was done by the man who owned the field and hired labour. Money from the sale of maize was used to pay poll tax and to buy clothes and cattle. It is interesting to note that the women's plots were entirely dug by hand, but the *kapande* was ploughed. This means that the men's fields were cultivated with a higher level of technology and were thus more productive and could be enlarged. As of 1938, when Peristiany could observe that the men's fields were rapidly mechanised and directly linked with the colonial economy, through the production of maize as a cash crop but the women's agricultural work remained the same without appreciable change in farming techniques. Crops produced by women were used to feed the household, while the men's labour and resources were drawn into taxation and cash earnings which men alone controlled.

Six years later in a 1944 study, Kaberry also showed how Bamenda women of the Cameroun were to a large extent responsible for food production processing and marketing. Observing the relative independence of the Bamenda women in food agriculture, she concluded that the improvement of their status was closely tied to and central to successful agrarian reforms in the country as a whole. Kaberry writes:

"Women as wives, mothers and daughters, produce most of the food and spend a greater part of the day on the farm. In this sphere of activity they enjoy considerable independence and have well defined rights; and it is in this sphere that there has been less change than in others... The *placing of agriculture in the foreground for detailed analysis reflects, then, its importance in the life of the women*. Changes introduced in this field will affect not only the status and position of women in marriage and the family but will radically modify the economy and the general standard of living. (emphasis added), (1944 p.viii).

Even in societies where men traditionally grew and managed the staple crop production such as the yam in West Africa, women were still known to be responsible for raising food crops. The case of the Ozuitem Igbo is pertinent here. Harris observed in 1943 that Igbo women always made sure that their husbands had low-lying land which they could use for food farming and even where a man did not own low-lying land, his wife insisted that he rent land for her to farm.

More recently Boserup (1970) stated that most of the traditional African agricultural systems are 'female' farming systems where women do most of the agricultural work related to food production.

Boserup observes that about forty years ago the 'female farming system' predominated in the Congo basin, large parts of South-east and East Africa and parts of West Africa. She goes on to explain that the 'female farming system' was more widespread in Africa before the colonial period and presents quantitative evidence of work-input according to sex in eight African countries. She shows that men spend an average of 15 hours per week on agricultural work, while women spend between 15 and 20 hours per week. In some samples from Gambia and Uganda, men work less than 10 hours a week in agriculture, while in other samples in Kenya, Uganda and Congo (Brazzaville), women do agricultural work for as many as 25 hours a

week. In percentage terms, it was found that women account for between 70–90% of agricultural work.

The apparent low participation of men in food agriculture in pre-market African economies is explained by the fact that men were engaged in warrior occupations —hunting, animal herding and deep-sea fishing. All these tasks which took men away from the home and from agriculture set the pace for the colonial economy to siphon off male labour toward cash crop farming, mining and plantation agriculture as an essential labour force once men's traditional occupations were undermined by changing circumstances.

The colonial legacy accounts perhaps for the single most far-reaching distortions of the African economies of which no country in the continent has fully recovered even up to this day. Forced labour, especially male labour for the plantation-mining cash nexus, greatly curtailed male contribution in food agriculture. At the same time, agrarian changes carried out for export purposes undermined women's role in agriculture in particular, by relegating food production to a subordinate status vis-a-vis cash crop production, thereby depriving this sector of essential investment in increased production.

The crux of the agrarian problem in Africa today, the solution of which the improvement of women's agricultural position is key, dates back to the colonial agrarian legacy. The colonial system, whatever its form, divided society into two: the *white* —or exploiting section, and the African— or exploited section. This dichotomy also can be extended to the subordination of female farming systems by a new colonial "male" farming system. In this way, the area of food production, in which women predominated, became the exploited sector from which the apparent surplus labour of African men was extracted to subsidize the colonial regime. This double exploitation (of men in the mines, plantations, etc., and women in food farms) set the pace for the beginning of the deterioration of food production in Africa.

In an illuminating article, Ominde (1963) reviews research priorities within the colonial paradigm of agricultural transformation. He shows that all constructive activities of the colonial agricultural programme in Kenya favoured the "success of commercial agriculture" which was to be the domain of the white settlers. Research concentrated on entomology, plant pathology, genetics and important commercial crops and animal husbandry in the alienated areas. At the outset, there was great need for experimentation with several types of crops before they could be grown commercially. In the African areas, on the other hand, attention centred on rehabilitative methods such as how to remedy soil erosion, and new methods of cultivation (e.g. ploughing across the slopes) were introduced with a view to arresting the deterioration of the soil. The fragmentation of land use was also considered an impediment to colonial agricultural policy in African areas. However, the main concern of experimental agricultural research rested with large scale commercial farming at the expense of African areas. The truth of the matter is that commercial farming could only really thrive if production in African areas did not increase to the point of becoming a major competitor in the local market and export trade. This perception precluded any possibility of serious investment in improving traditional agriculture, especially considering that women were the key actors in this field.

The persistence of this colonial paradigm in Africa today represents the greatest challenge to African development in agriculture. The Lagos Plan of Action while recognizing this problem does not really place women in the foreground for improvement of food agriculture. The role of women in development is discussed in another chapter and without a clearly defined conceptual linkage between proposals to improve the situation of women and the major food and agriculture problems of the continent. Since the

Lagos Plan of Action endorses research co-operation between INSTRAW and E.C.A. this presents an opportunity for INSTRAW's initiative for collaborative work on African women. The analytical point to elaborate is the proposition that deteriorating position of women in agriculture is symptomatic of the deteriorating food situation in the continent. The demonstration, analytically, of this linkage would provide a powerful leverage for raising the women's question to a higher level in development dialogue.

B. Women's rights in Land

Landlessness may be brought about by demographic pressure, inequality of distribution of land, or heavy capitalization and mechanization of agriculture. In the majority of cases these changes have pushed men into non-agricultural wage labour or commercial agriculture. Because they have limited opportunities for wage employment women have tended to remain in small sub-economic plots of land where they are exploited.

Experiences with various land reform programmes have not been satisfactory. For instance, in Ethiopia, the land reform programme which apparently starts off with an equity ethic has left women still dependent on the men and under the aegis of the old patriarchal forms. Similarly, in Ivory Coast, and Senegal, the programmes for appropriation and reallocation of land by the State have neglected women's interests. In Kenya, the land tenure reform does not fully recognise women's rights nor does it stipulate clearly, easily comprehensible and affordable means by which a woman could reassert her rights to use land should the male registered owner threaten sale. In some districts in Kenya, the trend toward replacement of food farming with cash crop cultivation is traceable to the period during which the tenure reform was enacted and implemented.

Where land consolidation has been carried out in Africa the result is sometimes mixed blessing for women. On the one hand, the traditional allocation of household fields to the wife or wives, once made, was nearly irrevocable so long as the women remained a member of the family. Her right to a field was recognized and guaranteed by the society in which the ownership of the land was vested. With the introduction of land consolidation, the Women's Security may not be guaranteed any more, because the community can no longer exercise legal vetos to protect a woman's land rights.

After consolidation, individual plots are usually fenced, and livestock cannot be allowed to roam about for pasture. This means that if the animals are kept, then women must cultivate or gather fodder and fetch water for them unless there is a well or stream nearby. This last alternative adds to the women's work burden. Yet, consolidation is sometimes advantageous to women in that it may reduce the distance women may have had to walk from one field to another under shifting cultivation. It may also foster better husbandry because of time saved from walking to the fields with the result that yields may improve even in food crops such as maize, potatoes, cabbages and beans.

Also the keeping of dairy cattle for commercial purposes would increase with the resultant improvement of diets because a considerable quantity of milk was consumed on the farms.

C. Access to Incentives for Agricultural Expansion

1. Credit and Finance

In general, women have few possibilities of getting access to capital especially to relatively large amounts. This is because the credit and finance

institutions can only give loans to those who display security such as land in order to get loans and in this the women are disadvantaged, as already been shown. Women are making appreciable efforts to deal with this problem. The Kenya Women's Finance Trust Limited for example, is attempting to acquire funds to enable it to stand surety for women borrowers. This effort could go along way to help the women improve their financial capabilities through borrowing from established lending institutions. Whether it can reach rural women effectively, is still too early to ascertain.

In other parts of Africa, women try to overcome their financial problems by engaging in marketing activities as a means of earning cash to meet their household expenditure and any other financial needs that may arise from time to time. A case in point is the well-known market women of West Africa from Ghana, Nigeria, Sierra Leone and Liberia. Here women have successfully participated in commerce. They sell imported goods like kitchen utensils, soap, fuel and sugar as well as fish and agricultural produce. Because they can accumulate capital they can participate effectively in banks and local financial institutions. In Nigeria, half of the women of Yoruba community are primarily engaged in commerce, while in Ghana women account for 80% of village and town trading. Sometimes these women form very strong and influential trading organizations such as the "Fish mammies" in Ghana and Liberia. In certain regions, women sell their produce from their harvests directly to large private companies or to the state.

Given the colonial paradigm of development and resource allocation the situation emphasizing equity in land use rights could not persist because it would be a negation of the colonial profit motive. Hence the colonial push for individualized land tenure with vague rights for former users. Land which was communally held became the object of property rights.

The colonial market economy, by supporting individualized tenure also created a new system of land inheritance. Increasingly land rights go to male heirs, while the daughters are almost entirely excluded on the spurious ground that women have never been involved in land distribution. They have also been excluded from access to legal information on the new land tenure systems nor do they have sufficient money to acquire independent plots of land. However, since women are still retaining responsibilities for feeding their families, these uncertainties in land rights are a disincentive to productive farming. The main problem is that women's current rights to use land are, however, not definitive, being limited to the length of time the land is under cultivation. Thus, each year, married women are dependent on the goodwill of their husbands and the availability of land in order to grow food. If only married women are to obtain use rights in land from husbands then one might ask how do the single mothers and divorced women manage?

Increasing privatisation of land, combined with the tendency to preserve land resources due to an apparent decrease in soil fertility in some areas has made women's access to land even more difficult. At the same time, the availability of female labour is a factor women must consider in their effective use of land. Because female labour is already over-burdened, women prefer land that is near the home and does not need too much work to clear. Inavailability of easy-to-work land with low labour-demand tends to cause women to switch, for instance, from yams to producing the less nutritious cassava.

Rural women have traditionally worked as members of family groups and on the basis of their roles as wives, mothers and daughters, they have been guaranteed some degree of economic security. The rural family is being severely restricted in its access to resources and is being gradually differentiated within itself by processes of technological change and agrarian reform. Institutional credit has been tied to land as a security and usually

unavailable to women. Lending and training opportunities have also not been oriented to rural women's priorities especially those from landless or poor families. Changes in patterns of land allocation might, therefore, reinforce existing inequalities between men and women and may lead to their insecurity in land.

Moreover, patterns of marriage and property rights usually discriminate against women; in addition, problems of intergenerational transfers and increasing pressure on the land add to the obstacles to women's access to land. Even where experiments with socialized land such as the "Ujamaa villages" of Tanzania show that women's access to land has improved, double obligations on the farm and in the home, continue to imply longer working hours for women than for men.

It should be noted that in the pre-market stage, the predominant emphasis in local economies regardless of marked social differentiation, was the right for individuals to use land which was held by male patrilineages. In some cases, land was held by emerging landed aristocracy but because land was not a scarce commodity, its usufructory value was the more emphasized.

Availability of credit is an area still requiring very serious and concerted action especially in the direction of ensuring women's credit —worthiness with major established lending institutions.

2. Farm input and land development

It is extremely difficult to separate the effects of technical change on the rural household from those stemming from the transition from a subsistence to commercial rural economy. In fact, these two processes are often closely linked since technical innovations as such are means for modernization of the economy.

Experience so far reveals that technical change increases the productivity gap between men and women. This is partly a function of the colonial paradigm which precipitated differential access to agricultural technology by sex. According to this system, development of technology for cash crop production was promoted and even where African small holders were allowed a modicum of cashcrop farming opportunities such as coffee in Uganda, know-how was given preferentially to men who were considered the "appropriate" farmers and who were in theory at least more involved in cash crop production. On the other hand, women never got the chance to use improved technologies. Their only farm equipment were hand hoe and machete. They contributed their own labour and seed selected by local husbandry methods. Consequently, men had better access to technical innovations which in any case were more suited to the crops they grew and later to their relatively large lands. Moreover, women farmers tend to have less of the prerequisite such as cash to buy farm implements and other inputs like better seeds, fertilizers and so on. They also lack loan security in the form of land title or a big stable salary nor do they own adequate acreages needed to meet certain programme requirements of minimum hectareage which makes adoption of technologies feasible. Furthermore, even when women do have these prerequisites they face discrimination in the provision of agricultural extension services because of the sex bias within agricultural ministries in personnel training and priorities for agricultural training of women farmers.

The predicted consequence of these factors is that productivity gap between men and women in agriculture could increase as women will remain in the subsistence sector using traditional technologies while men become increasingly involved in commercial production with modern technology. Generally speaking, one can say that women's access to these new farm

inputs is hampered by the historical division of labour by sex and the ways in which this has been transformed. Also women cannot enlarge and develop their land because of meagre cash income. At the same time, the men who have monopoly of land are still unwilling to allow women to have a fair share of use of land as a collateral to obtain loan facilities. Many men still see women's economic independence as a threat and resort to these measures as a means of exercising control over women's production.

3. Technical Training and Information

Women have always faced discrimination in access to agricultural extension services because of the colonial paradigm discussed above. Moreover, few governments have been able to reorient their agriculture ministries to cater for women's agricultural needs. Therefore, opportunities for training in agricultural colleges have benefited men more than women. Women joining these colleges are still largely to be found in home economics courses — teaching home making and not agricultural skills.

Comparatively, more women are now getting places in agricultural colleges than has been the case in the recent past. In some countries they now can get full agricultural courses just like the men have done. For instance, at the University of Lesotho, Botswana and Swaziland, female students of agriculture now learn to drive tractors, a thing that was never encouraged in the past. Sometimes increasing enrollments for women in these colleges is hampered by more basic obstacles like space allocated for girls and hostel amenities. Such architectural biases reflect an even more deep seated perception on the part of those planning agricultural schools that not too many women should train in agriculture.

D. Participation in Rural Institutions

Agricultural Co-operatives are basically institutions that serve to integrate the peasantry into the market economy. The main aim of co-operatives is to maintain low social differentiation rather than to increase it. As such the co-operatives were established with a need to look into the following:

- Government policy encouraging member identification with the co-operatives;
- Ensuring that co-operative members receive a fair share of the profits from the world markets;
- Removing additional financial burdens from the co-operatives;
- The land issue especially land allocation.

Although policy encourages member identification with the co-operatives, women members do not always identify with their respective co-operatives because they do not receive a fair share of the profits nor were they treated as members in their own right. Thus one finds that rural co-operatives as the key institution for increasing rural development have not been instrumental in developing rural women. Co-operatives organized by women for women have tended to improve women's access to credit facilities as well as strengthening women's voice in the co-operatives. For women to benefit from co-operatives the criteria for membership should be more flexible.

Part III

A Review of the Impact of Key Transformative Forces on Women's Agricultural Roles

A. Impact of Farm Mechanization

Advances in science and technology are often related to the challenge to control production as well as natural environment. However, technological changes sometimes exacerbate the already existing cleavages between social groups and between the sexes by redefining the power to determine the use of share of benefits accruing from new technological advances. Available information suggests that certain technological innovations in agriculture and related industries may lead to greater differentiation between men and women by undermining women's earning capacity, greater access to skills, and mastery over new machines.

The World Conference of the United Nations Decade for Women in Copenhagen, pointed out that technological changes, in most cases, led to concentration of women in domestic roles such as subsistence food production, household maintenance and child care, non market activities and non market productive work. The Conference also noted that when self-provisioning (subsistence) economies are incorporated in a market economy, and working operations become mechanized, men seem to assume control of the new machinery. For women this results in the loss of control over the means of production and economic resources and reduced opportunities to provide food and adequate care for their families. Moreover, these changes may result in harder work for longer hours on the part of women. The experience of many African countries is that existing methods of choosing and introducing technological improvements have the dual effect of increasing the female work burden while simultaneously undermining women's rights of appropriation over the results of their own labour.

It has also been shown that women workers may be displaced by the introduction of new technologies. For example, a study of Mea Irrigated Rice Scheme in Kenya shows that the introduction of commercial crops and the commercialization of food staples can have the effect of reducing men's ability to procure an equitable share of family produce and cash income, while increasing their working days, insuring their continued employment in labour intensive low-productivity work and reducing their control over the family's purchasing power.

In another Kenyan case study, it was found that the introduction of the plough in an area independent small farms gave men an greater opportunity to earn cash by virtue of their ownership of oxen needed to pull the plough. In the meantime, the same operation performed by women using hand hoes earned much less. The same study also revealed that the introduction of the plough necessitated new methods of sowing and cropping patterns which eliminated certain crops like squashes, pumpkins, various legumes of which women had control, leaving only crops over which men had control such as maize. While ox-drawn ploughs permit cultivation of large acreages its use transforms farming opportunities in such a way that crop mixes favouring women may well be eliminated. Frequently, the introduction of the plough is accompanied by reorientation of local farming systems away from producing small scale nutritious food toward producing for the commercial market with emphasis on mono-crop farming.

In the Bonake region of Ivory Coast, a study has shown that agricultur-

al modernization can undermine women's control over the returns of their family's and their own labour in cash and in kind. The study found that only 10–35% of the family income in modernized villages is allocated to women whereas in traditional villages (i.e. where no agricultural modernization has been introduced), the allocation is 50%.

In areas of commercial agriculture where new types of technology are in use such as coffee or tea plantations, women tend to have fewer opportunities to work as permanent labourers. They often provide much of the seasonal labour in addition to their work in subsistence farming. Often in these positions, they are not paid and even when they are, the wages are much lower than those of the men who are treated as more permanent labourers.

The sex bias in the use of new technologies also affects women's opportunities for technical training in agriculture. Training in farm mechanization is given mostly to men, with the view that it is only men who are able to use these new implements. In Uganda, for example, it was the women who began the cultivation of cotton, but when new methods of agriculture were introduced in 1923 only the men were taught. From that time men began to grow cotton for sale and the women fell back on non-mechanized food farming. In places where cotton was still grown by women, the Europeans neglected to provide agricultural instruction for women, while at the same time a large scale propaganda campaign was directed to the men concerning the benefits of growing cotton.

The plough and the tractor are being widely used in modernizing rural areas, both for tilling and sowing, while weeding, harvesting, and processing of the farm produce usually performed by women, are still done by hand.

Experiments with innovative forms of social organization such as "Ujamaa" villages of Tanzania show that it is in fact possible for women to gain under changed economic circumstances. According to the studies carried out by the Buhare Home Economics Training College in Musoma, they found that in "Ujamaa" villages in Tanzania, the division of labour between men and women tend to be more fair. Each individual received a share of profits from sale of crops produced according to the labour she/he actually expended. Women also had equal say in the management of villages, particularly with regard to the disposition of total profits of individual villages. These opportunities for change could provide better access for women and should be pursued.

All the new techniques of commercial agriculture such as development projects, agricultural assistance schemes, training in modern farm techniques and the acquisition of machines and land have been generally conceived with men in mind. In order for women to benefit and participate more actively in improving the African food and agriculture situation, more attention has to be given to their role in the solution of problems of food selfsufficiency. In other words, governments and international development efforts must start to *invest* in women to improve their productivity by enhancing their farming skills through opportunities in training and greater access to resources.

B. Impact of Commercial Agriculture and the High Yielding Varieties of Grain

Commercial agriculture and high yielding varieties of grain have been shown to benefit the richer, more progressive farmers and therefore undermine the concept of economic growth with equity.

The colonial legacy which is a plague to many African nations gives preferential treatment to men with regard to commercial agriculture. Wherever the colonizers went, they ignored female farmers and they also con-

cluded that the land women cultivated could be put to more productive use by expanding it for commercial agriculture. This restricted land available for the cultivation of food crops and increased women's work because they had to help their husbands with planting, weeding, harvesting, transportation from the farm to home of commercial crops. Needless to say this increased work load is by no means a wellcome change. Women had still to keep up with their farming obligations in the subsistence plots.

Among the Akwapin of Ghana, where men considered food farming to be an unworthy occupation and therefore left it to the women they moved into export agriculture because of the money to be earned. Among the Akim, nearly half the cocoa farmers were women farmers in their own right, but when companies were being formed for the express purpose of growing cocoa for export, many women suffered disabilities. It was considered unusual for a woman to be a company member in her own right. Also women seldom had returns from their work on cash crops. For instance, in Southern Ghana, women assist with preparation of palm oil, but it was not theirs to sell, and when they market it, it is on behalf of their husbands.

Commercial agriculture can be said to have influenced male labour to migrate to the big plantations of the settlers during colonial times and more recently, to the large farms owned by the rich indigenous inhabitants who bought them from the settlers. This trend deprives the women of the male labour and as such increases their work burdens in food farming. When it is sometimes difficult to find substitute labour for felling trees, clearing bush and ploughing, women often have to take on these tasks as well. In addition, women have to bring up children and carry on with domestic responsibilities. From the foregoing review, it can be seen that farming improvements tend to favour the males while the females tends to experience negative consequences thereof. For women, this situation brings about more dependence on men as cash earners because in seeking paid work women are usually disadvantaged due to their relatively low level of modern education.

To improve women's status in agricultural production, they must therefore be given more consideration in planning agricultural change. In addition, more women must be trained as technical agricultural extension workers so that they can teach new methods to their fellow female farmers.

C. Impact of Male out Migration and the Situation of Female — Needed Households

As it has been said elsewhere in the paper that in most of traditional Africa, women were the backbone of rural farming. Except for the yam producing areas, they were responsible for growing subsistence crops for feeding the family. The men only helped with more strenuous tasks like cutting trees and clearing bush. This gave the rural woman a very important role to play in terms of production within the family. However, the colonial era and subsequent agrarian changes have reduced the value of their role in agricultural production.

This change in the importance of the women's role as farmers may be traced largely to the introduction of the cash economy and subsequent male migration to fulfil the labour requirements in the commercial sector. The impact of male migration both to the mining and urban or plantation centres was felt both in the way it affected women's role in agriculture but also in the whole rural community. In 1931 when about 60% of the able-bodied males among the Bemba of Zambia were away in the mines, agriculture was disrupted and marriage difficulties increased. The women, old men and children could not cope up with agriculture and as a result very serious food shortages arose throughout a wide area. The women were therefore left to do double the amount of work in order to feed their families in the absence of

the men. Where men and boys formerly did the clearing, now the women had to do the clearing.

In Kenya, the 1960 census in Vihiga District of Kenya revealed that 30% of the land individual parcels remained uncultivated as a result of migration. In Kenya as a whole, until recently, more than one third of rural households were headed by women. In areas where there is extensive migration such as among the Soninke's in Senegal, or the Mossis in Upper Volta, because of isolation from transport system and less suitability for growing export crops, the women have the entire responsibility for growing crops as their husbands tend to leave home to sell their labour elsewhere. In Lesotho, where two thirds of the men work as migrant labour in the South African mines, most of the year, women spend up to 10 hours a day in the field at the height of the hoeing season.

In Ghana, with the introduction of cocoa and the increasing importance of predominantly male migration, there was a general change in the sexual division of labour. Women took over more responsibilities for food crop production. These changes affected the household economy and the division of labour within the household and brought many women into much more central position for the survival of many rural families. Almost half of the Ghanaian households are now headed by women and most of them have no male members. This makes the women solely responsible for the daily maintenance of themselves and their children. The situation has affected the household consumption levels.

A series of surveys and more intensive study in rural and urban areas of Botswana over the past 10 years has concentrated attention on the female headed household which include widows, unmarried women and women whose husbands are labour migrants. Such female headed households are said to be the direct result of two linked processes in Botswana's economy: the lack of income opportunities in the rural areas and the out migration from rural areas of adults, in particular adult men. Survey results (1970) indicate, for instance, that households headed by women held fewer cattle, ploughed and planted fewer acres, had more dependants per adult worker and fewer wage earners than male headed households. Thus they were found to be among the most disadvantaged segments of population in Botswana. Dispossessed of adult male labour, over-burdened with the tasks of childcare, domestic maintenance and crop production, these women bear the brunt of the phenomenon of labour migration. But not all the effects of migration by men are negative, however. In the Luapala Valley of Zaire for instance, while men returned home from the mines, they encouraged their wives to keep more fowls and goats. They also grew various vegetables and planted fruit trees in order to improve the quality of the food and diet. In this case, migration stimulated positive change through exposure to new ideas and consequent creation of new food and beneficial dietary habits.

D. Impact of Agricultural Pricing and Marketing Policies

Agricultural pricing and marketing policies can at times affect production of food crops. For example, if the government encouraged the production of a cash crop such as cotton, by increasing the producer prices, this might induce the growers to increase the production of the cash crop by either intensifying production through more farm inputs such as fertilizers, high graded seeds, ploughs, tractors. It may also induce farmers to put land under food cultivation to cash crop cultivation. Also family labour could be concentrated in the cash crop production at the expense of food production. As a result this would lead to serious food shortages or possibly famine

because of the tendency to allocate more land, labour and capital to cash crops rather than food crops. Conversely, where the Government pricing policy of cash crop is discouraging due to low producer prices, the farmers feel that the production of the crop is forced, hence feels that he is not going to buy what he can afford to produce and will thus concentrate on the production of subsistence crops whose surpluses can be sold at relatively better prices, such as maize.

In the Nyanza Sugar belt and Western Province of Kenya, during the 1970's, the government increased the prices of cane to encourage the farmers to increase sugar cane production so that the country could become self-sufficient in this commodity and have surplus for foreign exchange earnings. This interfered with the production of food crop because many farmers extended their sugar cane production into the food farms. They also diverted the family labour to the sugar cane fields, thereby neglecting the production of food crops. Other farmers altogether abandoned food production in favour of the sugar cane, because they thought that they could use the income from sugar cane to purchase food. They did not realize that there could be other difficulties such as late maturing of cane, transportation problems, loans to be paid and delay in payment to the farmers and over-production leading to marketing problems. This increased sugar cane pricing policy led to food shortages in the sugar belts and in the end, food had to be brought from elsewhere in the country to meet the sugar belt area's demand for food which increased the food prices due to the transportation and handling costs.

Consequently, changes in commodity pricing (specially cash crops), perhaps accompanied with subsidy arrangements, to compensate farmers, could help in increasing land and labour available for food crops thereby boosting its production. Also labour could be diverted to other crops whose marketing systems are efficient such as where there is no delay in payment and transportation is efficient and subsidized.

The attitude of the farmers and intra-household priority setting is also important. For example, if the man thinks that the price incentive for the cash crop is good, he might attempt to divert family labour toward the production of the cash crop. The women, aware that she neither stands to gain, especially from a non-edible cash crop, nor get much from the cash crop sales, would tend to be inefficient or may go slow and cause the production of that particular crop to fall below adequate levels.

When the marketing policies are rigid, this can also affect production. For instance, if the marketing policy gives the monopoly of purchase of a commodity such as maize to the Maize and Produce Board only, then there would be a disincentive for the production of that kind of crop since in most cases the Board purchases the maize cheaply from producers. Low sale prices coupled with delays in payment to farmers, may cause illegal marketing of the maize produce. These together with poor pricing and marketing policies should lead to lack of incentives and lack of entrepreneurship in production. These kinds of disincentives may also adversely affect food production insofar as they would have an impact in the local economy causing women farmers to reorient their prioritizing.

Part IV

Some Policy Options and Strategies

A. Incorporating an Analysis of Women's Productive Role in National Food Strategies

Following the spirit of the Lagos Plan of Action, a major objective of development policy in Africa at present and in the near future is to meet an ever increasing demand for food, stemming from shortfalls in food production and a rapidly expanding population. The agricultural sector must, therefore, continue to play the leading role in the Continent's development and nearly all the Continent's food requirements will need to be met from its production if Africa is to pursue the path to self-reliant economic and social development.

A realistic agricultural development strategy must therefore be aimed at the continued expansion of productive investment, with primary objective of ensuring food selfsufficiency and alleviation of poverty through growth in agricultural output. For this reason, a policy is needed to ensure steady increase in the supply of improved varieties of seeds and keep prices to the farmers at a minimum and within every farmer's reach. Attention should be given to the continued search for more improved productive crop varieties and livestock breeds that are directed towards varieties suitable for arid and semiarid areas of Africa, only then would food production rise. In this context, the question of policies affecting women's role in food production must be looked at very critically since women are the backbone of food agriculture.

One policy alternative that is increasingly being adopted by African countries in the concept of a national food strategy. Within the United Nations, a major initiative toward this approach comes from the World Food Council, a body which was established by the General Assembly in 1974 to co-ordinate food questions.

A food strategy may be designed to support rural development and agrarian reforms, co-operative forms of production, and other measures and initiatives aimed at strengthening the food and agriculture sector along the lines of conclusions and recommendations contained in the Declaration of Principles and the Programme of Action recently adopted at the World Conference on Agrarian Reform and Rural Development held in Rome in 1979 and endorsed by the GA at its 34th session and by the World Food Council in 1979.

In specific terms a national food strategy is seen to offer a more comprehensive approach to food and hunger problems and differs from previous approaches in several ways:

- it links more directly consumption needs to production objectives as a basis for meeting these needs;
- it emphasizes the integration of policies and project activities and avoids fragmentation of efforts;
- as a continuing process designed to sustain adequate priority for the food sector, it includes provisions for strengthening the institutions necessary for its implementation;
- it facilitates national decisions over time covering the whole range of activities affecting food;
- equally, it facilitates the increased and co-ordinated international assistance needed for its implementation.

The World Food Council reports that between 1979 and 1982 over 50 developing countries opted for a national food strategy as a new approach to increasing food production and national food self sufficiency. Of these, 20 are African countries. As of 1982 Cape Verde, Gambia, Kenya, Mauritania and Nigeria had prepared their initial strategy. Cameroon, Madagascar, Mali, Morocco, Tanzania, Upper Volta and Zambia were expected to complete initial strategies by late 1982—early 1983. By that time Benin, Congo, Liberia, Rwanda, Senegal, Sudan and Uganda were considering offers for technical assistance for strategy preparation and Somalia was expected to reach assistance agreements on this matter later in the year.

International assistance toward this initiative is increasing. Ten* country governments from developed countries, as well as the Interamerican Development Bank, the United Nations Development Programme (UNDP), the African Development Bank, the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), the International Labour Organization (ILO) and the World Bank are involved in food strategy assistance.

National food strategies have been endorsed by the United Nations General Assembly and by a number of UN organizations and meetings. Of particular relevance is the endorsement of the food strategy approach by the Conference of Least Developed Countries held in Paris in 1981 which saw this as a necessary and viable alternative for these countries to boost their agricultural output**. The concept has also been endorsed by the Commonwealth Heads of Government, the African French-speaking Heads of State, and by the European Economic Community. In 1982, a meeting of 44 developing countries in New Delhi, India, gave full support to this approach as a priority for resolving national food problems and for global negotiations. Clearly this is an approach to development which has established adequate backing both in terms of resources and political will to enable it to move ahead.

Since the food strategy approach represents a renewed effort to stem a growing food problem in developing countries and since its policy elements are just now being laid out it provides an important point of intervention for the women's question to be given priority within the framework of a major national concern.

In 1974 WCARRD proposed specific recommendations for action necessary for the full participation of women in rural development and agrarian reform. It concluded that:

recognition of the vital role of women in socio-economic life in both agricultural and non-agricultural activities, in accordance with the goals of the United Nations Decade for Women, is a pre-requisite 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 to disseminate this information in order to promote greater awareness of women's role in society (WCARRD Rep. 1979).

*) Australia, Belgium, Canada, Denmark, France, Federal Republic of Germany, Japan, the Netherlands, the United Kingdom, the United States of America.

**) Of the 36 countries designated as 'least developed' countries, 22 are in Africa. For these countries regional and international co-operation is absolutely essential if they are to make significant economic changes.

All these recommendations are fully pertinent to concerns towards strengthening the food sector.

The food strategy concept provides a framework for the widest possible understanding and incorporation of the key role of women in food production and rural transformation as a whole. For this is one of the few opportunities in which a national policy option is being discussed at a time when enough evidence exists to show that women are key agricultural producers though often neglected and frequently disadvantaged by technological innovations in agriculture. It is an opportunity to "integrate" women in agricultural development policy.

It is evident from the number of governments and international development assistance agencies ready to support national food strategies that a substantial amount of capital and technical know-how is being invested in this exercise. A selection from the 20 African countries already engaged in strategy preparations could provide INSTRAW with a significant opportunity to contribute to the research and training component of this important national and international initiative.

B. Other Policy Areas Requiring Positive Changes for Women

1. Land Policies

Improving women's agricultural productivity depends to a large degree on improving their access to resources such as land which is a key factor of production. The few systematic studies that assess the impact of agrarian reform and rural development on women, indicate that increasing landlessness and individualized forms of tenure tend to discriminate against women.

Since land policies have neglected women, it is necessary to design policies that enable women to own land or at least have clearly stipulated rights over land commensurate with their producer role. Provisions should be made to review the nature of women's land rights following land tenure reforms, with a view to future legislation guaranteeing women right to family land in the event of a husband's death or of separation or divorce. Moreover, it is important to review the possibility of extending agricultural credit to married women in their own right without the necessity either of land as collateral, or the physical absence of the husband. On the assumption that the provision of credit and accompanying physical and training inputs could help to increase farm incomes, such a measure would help to assure women of an adequate income from farming, independent of an uncertain provision from husbands. In addition, such a measure could have the effect of stimulating women's interest in better husbandry if they could be assured of rewards that this might produce. Without this essential commodity (land) at their disposal, women cannot be expected to produce enough food to feed the family and much less a surplus for export.

2. Agricultural and Technical Training Policies

One of the factors which has limited women's efficiency in their work has been the lack of access to technical information and equipment applicable to their farming needs. As has been stated earlier, commercialization and mechanization of agriculture have often marginalized women by one of several means: by reducing the amount of paid work and other income-producing activities; increasing pressure on family labour especially female labour; making food supply more problematic or reducing women's share of

influence over the allocation of family resources. Men have learned to manage and control the more innovative and productive sources of farm power, heavy equipment and modernized marketing systems in agriculture and fisheries. Cash cropping even without mechanization has frequently increased the demand on family labour and created competition in labour availability between family foodcrops and cash crops. Often the latter have enjoyed a greater investment of skills, resources and training. In so far as men tend to control cash crop farming, women hardly benefit from agricultural training geared toward cash crop production.

This factor is a hindrance to project implementation because of the sex-bias in provision of training related to new technology which relegates women to the traditional, less productive tasks. Sometimes there are cases where training courses have been given to men for farm operations performed exclusively by women thereby restricting women even further from possible improvements in their traditional modes of work. Lack of attention to women farmers training needs, lack of fair distribution of farm inputs and lack of credit and finance facilities cripples women's performance in agricultural activities. Therefore, policies geared towards increasing women's access to technical information and training should be recommended and insisted upon. Already some governments have programmes for improving rural literacy level. This effort needs to be stepped up and sustained if women have to increase the productivity of their agricultural labour. This calls for a policy to improve the flow of information to the farmers. The extension services of the Ministries of Agriculture, and Co-operatives should be strengthened through the expansion of programmes for staff training and through dissemination of research station findings to extension officers and more effective demonstration of approved management systems. Greater attention should be given to more effective and widespread group extension techniques involving demonstration farms and field days. Also arrangements should be made to schedule these activities at times when women can attend.

Emphasis should also be given to on-the-spot training of women farmers on improved crop husbandry, the use of fertilizers and other inputs, crop rotation, on-farm storage and processing of farm produce, record keeping and financial management. It is now a well known fact that women are not adequately served by extension workers. In most cases the extension workers are male and hence they mainly concentrate on male farmers and progressive ones too. These discriminatory attitudes, and practices demoralize women farmers. It is important, therefore, that policies toward women farmer's training needs make a special effort not only to improve women's access to technical information and credit and finance facilities but also to re-orient agricultural incentive systems and personnel to desist from prejudicial approaches and attitudes which are frequently defended on spurious grounds of culture and family. This means for instance, re-orientation of Home Economics courses away from viewing women merely as cooks and housewives but as agricultural producers. But more specifically, women should be trained as extension officers so that they could train female farmers.

The training and staff placement of women extension officers in Home Economics serves to reinforce rather than eliminate women's lack of technical agricultural know-how. Home Economics is often subordinate to the core programmes even within the agricultural ministries themselves. Yet this is where new mandates and changed approaches to improving food production are being initiated. There is no doubt that the subordinate and somewhat anachronistic role of Home Economics in these ministries does much to harm possible initiatives to improve farming conditions for women. The women officers in these ministries are also in a low position vis-a-vis the

hierarchy within the ministry. Sometimes they are even unable to implement even bad programmes because of their subordinate positions. This colonial legacy has to change. A new image is needed for women farmers as well as extension workers.

International development assistance agencies could also avoid reinforcing this retrogressive extension approach to women's farm work. Previous international development assistance in agriculture has exported, to receiving countries, attitudes and practices which fell far short of the realities of national farming communities and have at times even pulled women in these communities behind. By increasingly advocating housewifery and domestic programmes in nutrition and health, these agencies have often neglected to see that women's home-making roles and their agricultural roles are mutually supportive.

A new image is therefore needed both in national policies as well as international policies and programmes for agricultural change.

3. Appropriate and Labour-saving Technology

Women's work input into agricultural marketing and familial obligations frequently far exceeds the working hours of the day. A typical woman's working day starts at dawn or earlier and sometimes exceeds 16 hours a day.

To date efforts to introduce new technology or labour-saving innovations have in some cases increased women's work load, partly because of inadequate extension training for users and partly because of lack of immediate repair facilities to replace damages.

Alternative sources of cooking fuel, improved food storage methods, refrigeration, effective farming tools would reduce the pressure of work on women with tangible benefits for their farm work. Ways should be found to finance innovative labour-saving devices even on an experimental basis to assess their real effectiveness at the practical level.

One aspect of labour-saving not normally considered under agriculture is improved low-cost day care services even in rural areas. Although traditionally women have 'managed' these activities within the familial set up recent changes and especially school education is creating new patterns and difficulties with child care for working rural women.

In this connection national cultural policies and programmes could be directed to a more expanded role for rural men. In particular cultural policies enabling rural men to take on more active interest in farming and community development and the sharing of parental responsibilities in a practical sense could help alleviate women's work burden and improve their health and productivity.

C. Mobilization of Women

Traditionally African women have worked together in women's groups and as individuals. For in order to mobilize themselves for specific agricultural, marketing and political endeavours women have often banded together. Therefore, there has never been a question of passivity or apathy among rural African women.

More recently, governments have supported women's groups as a means of mobilizing women. However, one criticism about women's groups is that they have been found to exclude the poorest women from landless families or those with very little land. They also tend to exclude single household heads. This means that a programme for assisting rural women to step up

their food production through women's groups would only be more successful if they were required to be more broad based in their collective self-reliance. A policy is needed to provide more democratic guidelines for women groups to incorporate the mass of women in rural areas irrespective of her status. Membership criteria for these groups could also be revised to enable women with no means to join.

In the area of co-operative development, women should be encouraged by specific investment incentives to join and benefit from these rural institutions. A policy is needed to facilitate effective women's own co-operatives which they will operate by themselves and for which they will receive proper training in management and financial matters. This will eliminate the reticence of women in using co-operatives because for so long as they have been viewed as dependants of the male members.

Policies to strengthen "women's" co-operatives would look into the following:

- a) encouragement of member identification with the co-operative and a serious look into alternative mechanisms of acquiring loans, buying farm inputs and finally marketing the produce;
- b) ensuring that co-operative members receive a fair share of their profits from the sale of the surplus crops;
- c) ensuring that co-operative do not place additional financial burdens on the members;
- d) ensuring that the co-operative address land reform issues since this is the greatest problem faced by the rural African women. Here national women's groups and associations could provide the lobby for required legislative enactments.

D. Strengthening the Role of Women in Post Harvest Food Conservation Strategies

Seasonality of food production dictates to an extent the pattern of food production and availability. Many parts of Africa experience food scarcity just before food harvesting starts, and during the weeding periods. In areas where adequate rainfall and good soils facilitate adequate food production, the effect of seasonality on food production and the storage methods that are feasible and easy to utilize in the rural areas. Because of the seasonality of food production, African states should have a policy that ensures that enough food is stored at the farm level to last until next harvesting season, before any surplus can be sold. In any case, it is the men who like to sell food crops before they ensure that enough is in the store. As such the women should be given charge of new food storage techniques to minimise these trends towards premature sale of food.

Food conservation, to avoid destruction of food by pests is important. Women farmers should be trained in the correct use of pest control measures such as constructing pest proof granaries, use of pesticides, insecticides and fungicides. These pests, insects, birds, rodents and fungi destroy substantial proportions of the crop on the farm and as such aggravate the already difficult food situation. *There is need for specific policies on the prevention of health hazards of agricultural chemicals while subsidizing farmers to purchase them.* This information is an important aspect of consumer protection. In addition to food preservation and storage which takes into account the seasonal food distribution factor, it is important to consider transporta-

tion of food from the farms to storage places, usually within the farmers home. Policies for improvement of rural access roads are therefore an integral part of this effort. Unequal regional development as reflected in inequalities in infrastructural amenities such as access roads, or electricity often render food distribution and storage in some areas difficult, consequently affecting sale prices for food. This is a common problem in predominantly cash crop growing areas.

At the international level programmes for prevention of post-harvest food loss are receiving increasing prominence both in financial terms and in legitimacy within development assistance projects. In 1977 the FAO biennial conference approved a proposal by the FAO Director-General for the reduction of post-harvest food losses. The conference also adopted a resolution to set up a Special Account to finance the action programme. The target for funds of the Special Account were initially set at 20 million dollars. By 1978 the Prevention of Food Losses Programme was operational. By 1979 a total amount of 12.1 million dollars had been transferred or donated to the Special Account.

Two years later 75 project requests had been received for a total amount of 17 million dollars, of which 43 had been approved by the DG for an amount of 9.7 million dollars. Eight more projects were also approved for submission to Trust Fund donors wishing to contribute to the programme through Trust Fund arrangements. Of the 43 approved projects 19 are in the African region, 10 in Asia and the Far East, 7 in Latin America and 7 in the Near East.

Thus prevention of Post-Harvest Food Losses is clearly a major and growing programme area in which INSTRAW could participate in a research and/or evaluation capacity.

In both this programme and the food strategy proposals FAO and the World Food Council are fully involved. Substantial amounts of money are being devoted to these two activities. The question INSTRAW could be asking is where are women in these two undertakings, how if at all do both efforts incorporate an analysis of the position of women in food production? Are women seen as part of the solution to both these important food related issues? The framework suggested by the Prevention of Food Loss Programme and the Food Strategy idea could be invaluable as entry points in suggesting policy-level interventions.

E. Improved Data Base on Women

Programmes, projects and policies that affect women require accurate information in order to be fully effective. Usually two types of information is needed: existing data, already collected by local administrative data systems may not be easily available for programming purposes. These data could be analyzed to highlight sex (male/female) break-down and made available. Additionally new data may need to be collected where this is considered to be essential.

In the past five years some progress has been made to accumulate statistical information on women and to prepare baseline data for development planning and project evaluation. However, there has not been sufficient progress in long-range, basic research on issues of women and development, even with improved research methods on general problems of development. The "invisibility" of women's roles in the production and distribution of goods and services remains a problem both for analysis and planners of national and international development. This "invisibility" is, to a great

extent, the result of biased concepts and analytical models used in social research and data collection which exclude many of women's actual and vital roles in the economy and society.

Long range basic research can correct biases in the assessment of changing women's roles and status and the manner in which these changes affect their productive roles. The recent emphasis on programme-oriented research on women and development has expanded empirical knowledge about certain neglected groups (e.g., rural women, migrant women, women-headed households, etc.) and has thrown up challenges to some of the dominant theories and analytical models of development and the quantitative indicators used for measuring socio-economic change. Little work has, however, taken place to use these new insights in developing improved analytical tools. Moreover, development policy analysts have not taken adequate notice of the impact of this body of information on women. An improved data base on processes of agricultural transformation and their impact on women is essential to guide new approaches to planning for the agriculture*.

Monitoring and evaluation of on-going projects can also generate useful information as to how women are being affected by agrarian reform projects. Even where projects include components relating to women, it is particularly useful to gauge their effectiveness in meeting stated goals. That is to say effort should be made to go beyond mere reporting on what women projects have been undertaken to show how they benefit women in measurable terms. Project designs should include provisions for monitoring and evaluation throughout the life of the project.

Changes in women's socio-economic position can provide indications as to positive or negative growth in the food and agriculture sector. A combination of long range basic research yielding time series data and evaluative research on the situation of women can provide useful insights in documenting changing agrarian conditions.

*) Specific research priorities in this area are suggested in Achola O. Pala "The Role of African Women in Rural Development: Research Priorities" Discussion Paper No. 203 Institute for Development Studies, University of Nairobi.

Part V

Proposals for Instraw Follow-up

Given its mandate on training and research for the advancement of women it is necessary for INSTRAW to direct its work on food production, food systems (the terminology goes not matter) toward three specific areas as follows:

1. Policy

For many years now social science research has been faced with the difficult problem of how to bring research findings to bear on transformative forces in society. Policy makers often frown on academic research primarily because social science 'problems' are sometimes not priority problems of society. In developing countries and in Africa particularly so much of the social science research is motivated by academic endeavours which frequently are based in the metropolitan centres of Europe and America and which at times are hastily and ill-adapted for use in local situations. Frequently, too, research findings are presented in bulky form requiring time and much attention on the part of policy makers to read and digest.

Since policy making even in one seemingly unified field such as food and agriculture is not a monolithic exercise the way to influence policy changes is literally to "walk, talk and write" the ideas into policy making meetings and documents. This can be done when a new policy is in the offing such as the now-accepted food strategy policies; or it can be introduced as a supplementary to a planning document.

The first focus should be on *national food strategies* with the primary aim of facilitating an accurate incorporation of an analysis of the role of women in food agriculture and the implications of their low and deteriorating position on the future of food agriculture in the Continent. This should receive support from a number of countries especially in view of the OUA's Lagos Declaration which places agriculture squarely in the forefront of Africa's future development.

2. Training

INSTRAW could play a key role in facilitating positive attitude formation among senior government planners through training seminars organized at the national and regional levels. These training seminars should be short term but should also be repeated over a long period of time (2-3 years) in order to ensure continuity in planning with women in mind. This period is also essential as government officers tend to change not infrequently over a planning period.

Such seminars could be organized for agriculture and food ministers and other key ministers in collaboration with the Economic Commission for Africa and the Organization of African Unity. In order to save money and resources INSTRAW could liaise with regionally based women's associations with technical expertise in the subject area. In Africa the Association of African Women for Research and Development (AAWORD), in French Association de Femmes Africaines pour Recherche et Developpement (AFARD)

based in Dakar, Senegal offers collaborative possibilities. AAWORD is a professional association of women from Africa who are working on African development problems and committed to efforts to improve the condition of the mass of African women through development research. Such a regional group could be brought into an agreement with INSTRAW and ECA as well as any UN bodies working at the regional or national level (e.g. FAO, ILO, UNDP) all of which are involved in financing food strategies. In this way, they can begin to sensitize high level government officials, on these matters. Other regionally based professional groups such are CODESRIA* and OSSREA**. The former is based in Dakar, Senegal and the latter in Addis Ababa, Ethiopia, the home base of the ECA.

INSTRAW should also consider supporting grassroots training projects for women in post harvest food conservation techniques. This can be done through funding of local women's groups and co-operatives.

This exercise can be undertaken on a pilot basis initially with the hope of extension to other areas depending on lessons learnt in the pilot phase.

3. Research

Considering the centrality of land to agrarian questions in Africa the top priority for INSTRAW research should be devoted to women's access to land and the impact of agrarian reform on women's productive roles.

Access to Land

Given a particular level of agricultural technology and a land tenure system, a lack of access to land for women can affect both the organization of labour and agricultural productivity. Traditionally women in most African societies do not have the final right of disposition of land. Although they have always used land for crop production by virtue of being a daughter or wife of a particular man, different patterns may be emerging now. Research into this area could profitably focus on the following questions:

- a) what is the relative priority given to export and food crops in land allocation. The shrinking of land allocated for food crops might lead to loss of land rights for women with negative consequences for food production;
- b) What is the nature of differential access to land according to families? Is there an emerging pattern of differentiation based on land ownership?
- c) In connection with (b), what are the trends toward landlessness? Is there an emerging rural landlessness? How does this affect the women?
- d) What is the effect of land tenure reform on the position of women? Are there any women who are registered owners of land? What policy directives are needed to achieve this status? Do women who own land exercise their statutory rights to the land? Is there any discrepancy between the legal rule, i.e. ownership by first registration, and the social through her father or husband? Does ownership (i.e. statutory rights) enable women to apply their land titles to the acquisition of industrial or commercial loans? If not, why? Does ownership lead women to

*) Council of Development, Economic and Social Research in Africa.

**) Organization of Social Science Research in Eastern Africa.

take a more active role in the production, distribution and marketing agricultural produce? What policy initiatives are needed to achieve equality access to land for women within families?

The land problem is often tied to the structure of incentives in the agricultural development e.g. extension and training, finance and credit and therefore represents a key area where detailed information is needed. Time series research, policy research, and evaluation of innovative land reform programmes could help in crystallising strategies for how to improve the situation of women in the field of food and agriculture.

The three areas covering policy innovation, training and research should provide rich ground for INSTRAW collaboration at the national and regional levels toward enhancing the position of African women in food agriculture—a key development concern to the year 2000.

Possibilities for training and research co-operation exist with such regional institutions like the International Centre for Insect Pathology and Entomology (ICIPE) in Nairobi, Kenya. ICIPE is a research institution with an international board and research personnel. Although its initial orientation was toward studying insect pests and pest control, ICIPE is now keen to assess the social impact of its own work and is directing attention to the conditions of small farmers and their needs for technical information on pest control. It collaborates with international development assistance agencies in its work.

The Eastern Africa Management Institute based in Arusha, Tanzania, also offers good possibilities for collaboration in training seminars on the subject of women. Already the Institute has been running a course for the past three years aimed at sensitizing senior government officers on issues concerning women's actual and potential contribution to national economies.

Another institutional set up offering collaborative possibilities is the Pan African Institute for Development (PAID) based in Cameroun and performing training functions for middle-level development personnel. PAID is at the moment pursuing ways and means to increase its institutional capabilities for strengthening the role of women in African development.

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