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DEVELOPMENT OF FOOD PROCESSING PROJECTS TO PROMOTE WOMEN ENTREPRENEURSHIP IN EASTERN AND SOUTHERN AFRICA
ABBREVIATIONS

COMESA - Common Market for Eastern and Southern Africa
ECA - Economic Commission for Africa
ESAMI - Eastern and Southern Africa Management Institute
FAO - Food and Agriculture Organization of the United Nations
IGO - Intergovernmental Organization
IGADD - Intergovernmental Authority for Drought and Development
Kg. - Kilogram
MULPOC - Multinational Programming and Operational Centre
NGO - Non-governmental Organization
OAU - Organization for African Unity
SADC - Southern Africa Development Community
SADCC - Southern Africa Development Coordination Conference
UNDP - United Nations Development Programme
UNIFPW - United Nations Development Fund for Women
UNEP - United Nations Environmental Programme
UNFPA - United Nations Population Fund
UMDO - United Nations Industrial Development Organization
WID - Women in Development
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SECTION/SUBSECTION</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II RATIONALE FOR FOCUSING ON SMALL SCALE FOOD PROCESSING PROJECTS THAT ARE AMENABLE TO WOMEN ENTREPRENEURSHIP</td>
<td>3</td>
</tr>
<tr>
<td>III RECOMMENDED WOMEN FRIENDLY FOOD PROCESSING PROJECTS</td>
<td>5</td>
</tr>
<tr>
<td>(a) Overview</td>
<td>5</td>
</tr>
<tr>
<td>(b) Some Selected Projects</td>
<td>6</td>
</tr>
<tr>
<td>IV CONSTRAINTS IN THE DEVELOPMENT AND PROMOTION OF SMALL SCALE WOMEN FRIENDLY FOOD PROCESSING PROJECTS</td>
<td>11</td>
</tr>
<tr>
<td>(a) Overview</td>
<td>11</td>
</tr>
<tr>
<td>(b) Constraints</td>
<td></td>
</tr>
<tr>
<td>V THE ROLE OF GOVERNMENT, INTERNATIONAL, INTERGOVERNMENTAL, NON-GOVERNMENTAL AND OTHER INSTITUTIONS</td>
<td>12</td>
</tr>
<tr>
<td>VI CONCLUSION AND RECOMMENDATIONS</td>
<td>15</td>
</tr>
<tr>
<td>ANNEX</td>
<td></td>
</tr>
<tr>
<td>I Bibliography</td>
<td></td>
</tr>
</tbody>
</table>
I. INTRODUCTION

1. The mandate of this paper falls within the framework of the programme of work and priorities of the Lusaka-based MULPOC as approved in May 1993 by the Twenty-eighth Session of the commission/Nineteenth Meeting of the Economic Commission for Africa (ECA) Conference of Ministers. It reflects to a large extent issues and concerns already documented in various initiatives concerning the integration of African women in economic and social development programmes notably, the Abuja Declaration on Participatory Development: the Role of Women in Development in the 1990's; the African Platform for Action, (African Common Position for the Advancement of African Women).^A

2. It is common knowledge that the women in Africa, and indeed in the Eastern and Southern Africa Subregion, constitute some 50 percent of the national populations by average. In fact in a number of countries notably Botswana and Lesotho the female rural population ranges between 55 and 70 percent. Moreover, women provide 60 to 80 percent of the food supply while the subregion's ratio of female headed households is estimated at 35 per cent.

3. In a study of Gisenyi and Lusaka MULPOC/Subregions on "critical needs of African women and appropriate strategies", ECA found out that rural women spent on average 70 hours per week on domestic work and were mostly engaged in cooking (21 hours).

^A Adopted respectively at the fourth Regional Conference on the Integration of Women in Development and on the Implementation of the Arusha Strategies for the Advancement of Women in Africa, held in Abuja, Federal Republic of Nigeria from
6 to 10 November 1989; and at the Fifth African Regional Conference on Women, Dakar, Senegal 16-23 November, 1994. The study also revealed that in addition to their various domestic responsibilities, women played a major role in the rural economy particularly in agricultural production, animal husbandry, trade and handicrafts. Women were invariably associated with the cultivation, weeding, harvesting, processing and storage of food crops.

4. Yet, in spite of this contribution by rural women in productive activities, their access to wage employment is very limited which in turn curtails their sources of cash income badly needed for various home management responsibilities. These include buying clothes for themselves and their children, food items not produced by themselves, household utensils, paying school fees for their children etc. Consequently, the incidence of abject poverty is quite high among rural and peri-urban women which in turn leads to a high incidence of malnutrition in children, high infant mortality and concomitant suboptimal development in children.

5. Likewise, there is a parallel economic bias against the subregion's urban and peri-urban women most of whom have migrated from rural areas in search of better opportunities. ECA found that the participation rate of women in the urban formal labour market is extremely limited, with female participation rates ranging from

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10 to 15 percent of the total wage employment for most countries of the subregion*. The study further reveals that the majority of wage earning women were in semi-skilled and non-skilled jobs, with wage differentials as well as promotion opportunities in favour of men being prevalent in most countries.

6. Paradoxically, the policies of most governments in the subregion have done little to solve this imbalance on income earning potential between women and men. This is particularly true due to the fact that the development policies of most governments have tended to favour large scale enterprises at the expense of small scale enterprises. As a result only few women have relevant entrepreneurial skills for small scale enterprises much needed to boost income earning capacity of women. Hence some previous studies have revealed the need for further inputs to enhance management skills among women so that they are involved in more viable projects.

7. This paper examines the prospects of developing small scale food processing projects in various member states of the subregion with a view to enhancing women entrepreneurship. In Section II, we examine the rationale of focussing specifically on women friendly food processing projects. Section III, suggests the list of projects, albeit not exhaustive, which are amenable to women entrepreneurship. Section IV, examines the possible constraints while Section V, reviews the role of government as well as other cooperating institutions in facilitating progress in this scenario. Section VI gives conclusion and makes a number of recommendations for future action.

* Ditto.
II. RATIONALE FOR FOCUSING ON SMALL SCALE FOOD PROCESSING PROJECTS AMENABLE TO WOMEN ENTREPRENEURSHIP

8. The development of women friendly food processing projects is recommended for several reasons. First, the majority of women are situated in rural and peri-urban areas where agricultural production is their mainstay. Throughout the region, women are traditionally engaged in primary food processing, and their day to day lives include such activities as threshing grain, cleaning harvested crops for storage, pounding, cooking etc. Other activities closely associated with women include textile, garment and handicraft industries.*

9. Second, it is presumed that raw materials are available locally and as such little or no foreign exchange will be required for importing them. For example, during a survey of women as small scale entrepreneurs, in Zambia, ECA learnt that there were one hundred and three different raw materials which could form the core of the small business sector in food processing, Mineral and chemical processing, and other miscellaneous categories*.

10. Third, Food processing projects in rural areas have the potential for enhancing food security both in terms of extending the shelf life of perishable commodities, and also in terms of enhancing distribution of more perishable food commodities to more remote areas. Moreover, the projects so selected should not only

* ECA: Survey in Zambia, Cameroun and Ghana on Women as Small-Scale Entrepreneurs, 1980.
have the attribute of generating additional income to the respective women entrepreneurs, but should also be capable of easing the traditional work of housewives on food processing where possible in rural and peri-urban areas. This will help reduce the time wasted by this category of women in food processing alone which would then be used profitably in other fields of rural development.

11. Fourth, apart from generating income of rural and peri-urban women entrepreneurs and their employees, it is expected that the multiplier effect would benefit most rural and peri-urban farm families who will supply the bulk of the raw materials and labour among other things. Furthermore, the farming and rural communities in general would benefit from some of the by-products of these small scale food processing industries. For example, a maize-based processing plant would, in addition to producing mealie meal, produce by-products in a form of chicken feed using the husks and other ingredients.

12. Moreover, the African platform for Action, African Common Position for the Advancement of Women which was adopted in November, 1994, emphasises the economic empowerment of women in line with the Nairobi Forward-looking Strategies and the Abuja Declaration. The Platform adds that this be done through stimulating, consolidating and coordinating the entrepreneurial spirit and skills of African women and providing adequate access to both formal and informal sector resources. Thus these projects once introduced in various member States of the subregion, will go a long way towards alleviating women's poverty, insufficient food security, and lack of economic empowerment in rural and peri-urban areas.
13. Finally, reducing consumption of expensive exotic foods. Developing new and innovative ways of preparing, storing and processing local foods; if successful, it could literally revolutionize health and nutrition, especially among infants and children. A SADCC (now called SADC) Study reveals that infants' malnutrition, Kwashiokor in particular, is rife in many areas of the Region and that incidence of these diseases was not due to "shortage of appropriate foods, but to the lack of knowledge on the part of Mothers as to how to prepare them to make the best use of indigenous resources in bringing up their Children".

III. RECOMMENDED "WOMEN FRIENDLY" FOOD PROCESSING PROJECTS

a) Overview

14. The Zambia Small Scale Industries Development Organisation programme, defines the small scale enterprise sector as an enterprise with identified fixed assets of a maximum of US$70,000. The University of Zambia defines this term as an entity with employment of up to 50 people. The ECA definition is more comprehensive in that it defines small scale enterprise as a modern sector business with an identified managerial specialisation as opposed to the informal traditional venture with identified fixed assets of up to US$250000. For purpose of this paper, the last

D) -ditto-
E) -ditto-
two definitions will apply except that in this case we are focussing on food processing projects that are amenable to women entrepreneurship or in short women friendly food processing projects.

15. Selection of women friendly small scale food processing projects will vary from country to country and from region to region due to a number of factors. The dominant factor is the availability of raw materials, particularly crops which in turn depends on climate, topography and to some extent culture. In short, the comparative advantage in raw materials coupled with the natural endowment of a particular country or region will have some influence on the type of food processing projects to be found in particular areas. Thus maize-based food processing projects are likely to perform best in maize growing areas whereas groundnut based projects are likely to thrive in groundnut growing areas. Furthermore, it is important to ensure that any project selected for the purpose is economically viable using conventional Projects appraisal methods such as Pay back period or cost-benefit analysis.

15. Another major factor is the availability of appropriate food processing technologies for the selected projects coupled with the availability of spare parts. It is important that production should not be disrupted due to lack of spare parts which may be needed from time to time for the repair the machinery. In this regard, it is considered necessary to ensure that local industry is adequately equipped with the necessary spares for the various projects which will be established.
b) Some selected Projects

(i) Overview

17. The list suggested below is by no means exhaustive. Apart from projects based on the various stapple food and oil crops suggested in the following paragraphs, potential women entrepreneurs could also develop meat, milk and fish processing projects provided a detailed research has been undertaken in potential location areas.

(i) Cereal-based Projects

18. Under cereal-based projects, there are maize processing and sorghum processing projects to name a few.

Maize processing

19. Maize is the single most important food crop which is consumed by the majority of the population in Eastern and Southern Africa. Other staple crops are rice, sorghum and cassava. The processing of maize into mealie meal is done manually by pounding in rural areas, by a combination of pounding and milling where there is a hammer mill, or completely by mechanized methods using either the rural technology such as the dehuller, or commercialized machinery for large scale production.

20. Women entrepreneurs wishing to go into maize based projects could choose between establishing hammer mill projects or small scale commercial/service milling using a combination of a dehuller and hammer mill. The dehuller polishes the maize to remove the husks and the polished grain is later ground into mealie meal using the hammer mill. In service milling, individuals bring their maize
to the milling plant to be processed at a prescribed fee. Customers are free to choose whether to get their maize dehulled only to allow them to take it home for soaking the samp in water before being ground into mealie meal, or milling it into flour soon after the dehuling process is completed.

21. It is important that in maize milling projects the following precautions are taken among others:

- the maize grain should have the correct moisture content with a range of 12-14 Per cent;
- the grain should be thoroughly cleaned to ensure that there are no foreign particles that will damage the milling plant. Either women labour or cleaning equipment could be used for this purpose;
- where service milling is combined with commercial milling, there should be enough raw and packaging materials all the time; and,
- ensure that the shifts are arranged in such a manner that commercial milling does not disrupt service milling and vice-versa.

**Sorghum Processing**

22. Apart from maize, sorghum is used as a staple food by some societies in the subregion. For example, it is commonly used in Botswana and parts of Zimbabwe. It is also grown by some non traditional sorghum consumers as a precaution against drought.
Where sorghum is extensively used as a staple, women have welcomed the introduction of mechanised processing of the sorghum grain which brings much relief to the womenfolk. It has also been observed in Botswana and Nigeria that women are prepared to go and wait for a long time on long milling queues than to go into hand processing of sorghum for home use.

23. Similar dehulling and milling plants used for maize are recommended for sorghum provided they are adopted for sorghum grain size. Like in maize processing, sorghum processing starts with cleaning to remove foreign material from grain, dehulling to separate the fibrous outer skins or bran from the endosperm and grinding to reduce the dehulled grain to flour.

24. It should be noted however that in sorghum processing just as in maize processing, the husks or bran could be used directly as, or processed into poultry and livestock feed. Hence the need to ensure that the bran is properly packaged and sold as a by product.

(iii) Oil Extraction Projects

25. There is a wide variety of crops which can be used as raw materials in small scale oil processing projects. UNIFEM lists* three categories namely oilseeds, nuts, and mesocarp. The oilseeds family includes castor oil, cotton, linseed, Niger, neem, rape/mustered, sesame and sunflower. The nuts category includes coconuts, groundnuts, palm kernel nuts, and shear-nut while the mesocarp group includes oil palm(wet). Admittedly, not all these raw materials are available in all countries of the subregion while those available will exist in varying amounts in the various member States.

26. It goes without saying therefore that there is need to ensure that production patterns of the various oil seeds and nuts are carefully studied before a decision is made on a particular project. It would appear that for the time being we should focus on fewer raw materials that are familiar in the subregion notably sunflower, coconuts and groundnuts while efforts should be made to research and try new ones.

**Sunflower Projects**

27. Sunflower is widely grown in most countries of the Eastern and Southern Africa Subregion. Like other oilseeds production of oil using sunflower seeds starts with the grinding of the seeds into a paste which is then heated and later mixed with hot water and mixed into a paste. As the paste cools down oil is extracted from the paste. UNIFEM recommends the use of expellers due to the large amount of pressure required in processing of oil.

28. The oil expelling project could consist of an appropriate mill which could be used to produce oil for commercial use and at the same time provide a service to the local community by grinding pastes for manual producers at a prescribed fee. There are also bye products which include soaps, snack foods, and cosmetics which will enhance the profitability of the project if exploited.

**Coconut Projects**

29. Coconuts require to undergo a preprocessing stage before oil can be extracted using either expellers or ghanis. In the preprocessing stage, the coconut is first grated using a grater. Where expelling method is used, the coconut meat must first be dried to copra which is then reduced to smaller chips by chipping
or grinding prior to oil extraction. Small scale women friendly power driven expellers exist and have a capacity of 3 hp, with a production range of 8 to 45 Kg per hour depending on the type of machine.

30. Ghanis are mainly used in India and other parts of Asia in processing oil from mustard and sesame seed. Unlike oil expellers which use a horizontal shaft to press oil from the coconut chips, the principle in ghanis is that of pestle and mortar and can be used for coconut and groundnut processing. The by product in coconut processing is the cake which is essentially the copra from which oil has been expelled.

**Groundnut Projects**

31. Apart from coconut (copra), groundnuts have a high potential of oil production ranging from 38 to 50 per cent as compared to cotton seed (15-25), sunflower (25-40). The copra, however, has the highest potential estimated at 64 per cent. Oil processing based on groundnuts starts with the shelling of the kernels after which the nuts are grilled before being placed in the oil expeller. The shelling is better done mechanically in commercial production as hand shelling could be tedious.

32. The processing of groundnut oil using an expeller requires the introduction of a certain amount of fibre in the form of shells or groundnut cake from a previous process. The residue which is in the form of groundnut cake, can be sold for use in groundnut soup or fried and sold as a snack. The marketability of the by-products will largely depend on the local cultural values which determine the tastes and preferences of the consumers.
Roots, Tuberscal Plantains

33. Food varieties under this project would include Cassava, Potatoes, Yams and Bananas. These crops are grown as food stapples in various parts of the subregion and could constitute some viable food processing projects for potential women entrepreneurs to the extent that adequate research has undertaken.

Cassava Processing

34. An example of such projects is one on cassava processing. A Zambian study showed that traditional processing of cassava into flour was a very tedious and time consuming process which consisted of up to seven steps.

These includes peeling the fresh root, washing, slicing, grinding and sieving. The soaking and drying processes were found to be particularly lengthy each taking from 4 to 7 days depending on season. In certain areas, the freshly peeled cassava is fermented to allow for fungal growth before it is washed, dried and pounded.

35. In small scale cassava processing, potential entrepreneurs would need to invest in improved pre-processing equipment and appropriate hammer mills. In West Africa, cassava processing is enhanced using grating machines which have a capacity ranging between 400 to 1000 kg roots/hr, in addition to hammer mills.

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A Ministry of Agriculture, Food and Fisheries in Cooperation with Zambia Agricultural Training, Planning and Institutional Development Project (ZATAIDP)
IV. CONSTRAINTS IN THE DEVELOPMENT AND PROMOTION OF SMALL SCALE WOMEN FRIENDLY FOOD PROCESSING PROJECTS.

(a) Overview

36. Constraints in the development and promotion of small scale women friendly food processing projects are similar to general constraints associated with all other small scale enterprises. It is imperative that constraints are addressed adequately either through introduction of related policies or otherwise in order to ensure success in this subsector.

(b) Constraints

37. There are quite a number of potential constraints which may be inimical to the development of the proposed food processing projects. The following constraints which were identified by ECA* in the study already referred to earlier are by no means exhaustive:

i) Lack of capital including long-term and medium-term. This is prevalent in almost all member States and may apply to most potential women entrepreneurs in rural and peri-urban areas. Often, rules of most lending institutions for capital discriminate against women.

* ECA: Survey in Zambia, Cameroon and Ghana on women as small scale entrepreneurs, 1980
ii) Lack of training programmes, and general shortage in technical and managerial skills. The general imbalance in education programmes which have tended to favour men have exacerbated the shortage in technical and managerial skills among women.

iii) Inadequate support in marketing from either government or other agencies. This affects both local and export markets. It is imperative that a proper mechanism be put in place to ensure efficient marketing of the various products.

iv) Prevalence of policies that create a general bias against women entrepreneurs in society. This constraint evolves from lack of recognition of women's rights and human rights in general for most policies.

v) General lack of foreign exchange much needed for the importation of equipment and spare parts. This is still a major factor in a number of countries, despite the liberalization of foreign exchange control, since the capacity to earn foreign exchange is limited.

vi) Lack of credit facilities and if available, they are subject to high interest rates. Often the collateral required by lending institutions is out of reach for most women entrepreneurs. This leaves the option of borrowing from high interest private lenders.

vii) Family responsibilities which prevent women entrepreneurs from giving maximum attention to their businesses. African women have heavy family responsibilities in addition to increasing new roles, due to the prevalent culture that defines the role of the woman in her home. The responsibilities are greater for women headed households which account for 35% of all households.
V THE ROLE OF GOVERNMENT, INTERNATIONAL, INTERGOVERNMENTAL, NON-GOVERNMENTAL AND OTHER INSTITUTIONS

38. Government, international organizations, intergovernmental organizations, non-governmental organizations and other institutions have respective roles to play in the development of food processing projects to promote women entrepreneurship. Governments will be particularly useful in developing the enabling environment through developing suitable policies through appropriate legislation. International organizations and other institutions will be instrumental in areas of funding, training and research.

39. It is gratifying to note that most member States of the Eastern and Southern Africa Subregion have some governmental machinery in place that specializes in women's affairs. This machinery tends to have a number of roles depending on the level and set up in a particular country. Thus, in some countries, it has the roles of coordinating women activities at various levels, conducting research and to disseminate information on women, among other things. In other countries, the machinery has played a further role of developing infrastructure for women, building data bases in addition to effecting improvements in various aspects of the women affairs.

40. Additionally, however, governments do need to ensure that foreign exchange is made available for purposes of procuring spare parts, and assisting women entrepreneurs in developing inventories for spare parts as well as regional units for preventive maintenance.

41. Among the United Nations Agencies that have been actively involved in women in development programmes are: UNICEF, UNIDO, UNIFEM, UNEP, UNFPA, UNHCR, FAO, UNDP, ECA and the World Bank to name a few. Of all the UN agencies, UNIDO has a major role to play in the development of these women friendly agro-industrial food processing projects. Moreover, UNIDO has a unit established in 1986 in its Department of Programme and Project Development, whose
specific role is to "promote and coordinate the Secretariat's activities in the area of women integration in industrial development." The Agency's activities have consisted of advisory services to governments on policy measures and specific projects to promote the integration of women in industrial development; development and dissemination of appropriate food processing technologies for rural women; and, entrepreneurial and skill development for women entrepreneurs.

42. There are a number of non governmental organizations (NGO's) in many member states which have been formed during and since the United Nations Decade for Women. These national NGO's which include professional associations, cooperatives, religious organizations, and general purpose women organizations among others will be able to facilitate in one way or another the development of the proposed food processing projects to promote women entrepreneurship. Their activities include conducting research, training workshops, and the implementation of specific organizational objectives.

43. Furthermore, there are a good number of agencies representing foreign governments which have hitherto been instrumental in the functioning of most NGO's in Africa. Activities supported by


B) ECA: Survey in Zambia, Cameroon and Ghana on Women as Small Scale Entrepreneurs, 1980.

C) Those agencies that have been associated with the women in development (WID) programmes include: The NORWEGIAN Agency for international Development (NORAD), Swedish International Development Agency (SIDA), Finnish International Development Agency (FINNIDA), the Danish International Development Agency (DANIDA), Canadian International Development Agency (CIDA), the United States Agency for International Development (USAID), OXFAM and the Ford Foundations.
these agencies, include improving women’s living and working conditions, providing opportunities for women’s participation in the political, economic and cultural life and providing financial support to government’s women projects, notably, in the areas of training, agricultural projects, credit schemes, and appropriate food technology.

44. Last but not least, are the Intergovernmental Organizations, notably, the Common Market for the Eastern and Southern Africa (COMESA), Southern Africa Development Community (SADC), Intergovernmental Authority on Drought and Development (IGADD) and the Eastern and Southern Africa Management Institute (ESAMI). At the regional and subregional levels, these institutions have varying programmes under their respective WID departments. For example, ESAMI, which has already conducted a series of training programmes and workshops for women managers, entrepreneurs and others in leadership positions in business and industry could facilitate this endeavor by providing similar training to potential women entrepreneurs for the food processing projects.

VI. CONCLUSION AND RECOMMENDATIONS

(a) Conclusion

45. The need for the development of food processing projects to promote women entrepreneurship in the Eastern and Southern Africa subregion is real and urgent. If satisfied, it could go a long way towards reducing the existing imbalance between men and women, and contribute towards the attainment of lasting food security in the subregion.

46. Selection of various small scale women friendly food processing projects will depend to a large extent on available raw materials and cultural values besides profitability which will be determined by feasibility studies. There are a number of constraints which will need to be addressed, through the
development of relevant policies, training programmes as well as mobilization of support from the various international, regional and non-governmental agencies.

(b) Recommendations

47. The following recommendations are submitted for consideration by the symposium.

(i) As a first step, member States should promote food processing projects with the specific aim of promoting women entrepreneurship in the subregion besides enhancing food security and raising the standard of living of rural women.

(ii) Member States are further urged to carry out feasibility studies on selected projects to ensure their economic and financial viability. Interested international or non-governmental agencies could assist by funding both the feasibility studies and the projects' initial phases.

(iii) In order to ensure that impetus is maintained, it is recommended that a feasibility study of a small subregional unit to advise member States be undertaken before the end of 1997 if resources permit. The terms of reference of the study should also include development of a project proposal.

(iv) It is recommended that a smaller group of experts meet during 1988 to examine the outcome of the feasibility studies together with any other proposals from member States. Furthermore, the experts group meeting should meet yearly thereafter to take stock of achievements in the subject.
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