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21535

Distr.  
RESTRICTED

ISED/R.67  
14 May 1996

UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

ORIGINAL: ENGLISH

DESIGN OF AN INTEGRATED DEVELOPMENT PROGRAMME  
FOR THE WOOD PRODUCTS MANUFACTURING INDUSTRIAL SYSTEM OF GHANA

US/GHA/94/077

GHANA

**Technical report: Participation of women\***

Prepared for the Government of Ghana by the  
United Nations Industrial Development Organization

*Based on the work of E. Sam,  
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Agro-based Industries Branch

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\* Mention of company names and commercial products does not imply the endorsement of the United Nations Industrial Development Organization (UNIDO). This document has not been edited.

## ACRONYMS

ADRA	Adventist Relief Agency
BRI	Building and Road Research Institute
FIDA	International Federation of Women Lawyers
FORIG	Forest Research Institute of Ghana
FPIB	Forest Products Inspection Bureau
GES	Ghana Education Service
GLSS	Ghana Living Standard Survey
GTA	Ghana Timber Association
IRNR	Institute of Natural Renewable Resources
JSS	Junior Secondary School
M.O.E.	Ministry of Education
MSLC	Middle School Leaving Certificate
NACVET	National Coordinating Committee for Technical and Vocational Training and Education
NCWD	National Council on Women in Development
NGO	Non-Governmental Organisation
NTFP	Non-Timber Forest Products
TEDB	- Timber Export Development Board
UNIDO	- United Nations Industrial Development Organisation
WFIS	- Wooden Furniture Industrial System
WITC	- Wood Industry Training Centre
WVI	

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## 1.0 INTRODUCTION

The programme concept "Integrated Development Programme for the Wooden Furniture Industrial System" (WFIS) was developed in collaboration between the Integrated Programme Support Unit and the Agro-based Industries Branch of UNIDO.

The proposed programme seeks to address several objectives in a holistic manner, through the development of a series of projects integrated together aimed at improving the wood and wood working (wood processing) subsectors of the industrial sector which will result in increased export earnings, adding value to local raw materials and minimising damage to forests.

From recent work carried out on forest inventories, the standing volume of mature and marketable trees has been estimated at 102 million cubic metres. Another 86 million cubic metres has been classified as immature. The safe allowable cut has been estimated to be 1.1 million cubic metres per annum, arrived at by the World Bank Forestry Sector Review in 1987. Recent developments suggest a somewhat lower level due to overcutting.

Log production, for industrial wood, extracted from the reserves and unreserved forest is currently between 1.1 - 1.3 million cubic metres per annum. Of this production over 60 per cent, about 770,000 cubic metres is for local wood usage with around 40 per cent (500,000 cubic metres roundwood equivalent) for export.

In addition to the above, an estimated 11 million cubic metres is used annually both locally and in urban areas for fuelwood and charcoal. This is 10 times the volume of logs extracted for timber and represents a considerable pressure on forest resources.

It is expected that optimum use of the forest resources and plantations will lead not only to much higher export value for the country, but also to a much more independent industry, not relying as strongly as it does now on volatile world markets for logs and other commodity products.

A diversified woodworking sector which maximises use of wood is also likely to generate considerable employment in small, medium and larger scale industry with a large variety of products. This in turn would create considerable opportunities for ancillary industries that, relying on the wood processing subsector, could develop products like glues, hardware, paints, varnishes and other finishing materials, tools and equipment, etc.

The programme is to achieve balanced development of the overall system from forestry, through sawmilling to tertiary wood processing (especially furniture making).

The role of women as active participants and beneficiaries within this industrial system is also to be analysed and properly incorporated into the programme.

The purpose of this report, therefore, is to outline briefly the participation of women in forestry, primary processing, manufacturing, marketing, training, R&D and commercial activities in the sectors; as well as potential areas for involving women as producers such as furniture making, production of unique packaging materials made of wood, or household appliances and handicrafts.

## 2.0 STATUS OF WOMEN IN GHANA: AN OVERVIEW

Women have been the target of recent development programmes in Ghana not only because they constitute 51% of the total population but also because of the realisation that for effective national development, the entire human resource should be fully mobilized to participate actively as agents and beneficiaries.

Ghanaian women in both urban and rural areas have, as a tradition, always been active and effective partners with their male counterparts in the socio-economic development of the nation. However, it is the differential role of women viz-a-viz men that adds a gender dimension to development.

If men and women had similar responsibilities inside and outside the household, were subject to the same constraints and demonstrated similar current living standards, then gender would be a less fruitful dimension along which to pursue development issues.

A number of studies have shown that for development projects to fully succeed, they should be specifically oriented towards both men's and women's needs and interests.

Contributions made by women to the development process and the need to work towards the integration of women in national policy and programmes formulation have been repeatedly emphasized both at national and international fora.

Ghanaian women are increasingly participating in social, economic and political life. They have been widely acknowledged for their entrepreneurial drive and economic independence. Indeed women make significant contributions to both home and market production in this country. There are no laws that discriminate against them.

Nevertheless, because of the norms which society has come to place on women, they have tended to move into sectors that lend themselves to easy entry and once they enter, it is difficult to get out even though other sectors may hold more feasible opportunities.

These norms include:

- (i) male dominated access to information,
- (ii) unequal patterns of reciprocal obligations (i.e. women have much heavier time burdens resulting from their reproductive and productive roles)
- (iii) poorer access to private savings and credit sources and
- (iv) barriers to formal sector employment.

## 2.1 SOME KEY SOCIO-ECONOMIC DEVELOPMENT ISSUES

### 2.1.1 Participation in Decision-Making

Although there are no laws in Ghana that directly or indirectly bar women from participating in political, social or economic life in the country, a deep-seated cultural perception of women as inferior compared to men has been and continues to be a major hindrance to women's advancement in the area of power-sharing and decision-making. Women's participation in the power structure in the country is still low, due also to lack of education and perceived need for it.

For example, to be a chief director or a managing director of a corporation requires a certain level of education and knowledge. Men always have an advantage over women in education and especially at the higher levels. At the family level, when parents are financially constrained in the education of their children, they always choose to send boys to school without considering the ability and potential of the girl.

The practice still continues with a girl being sent to learn dressmaking or typing while a brother goes to university. Even when a woman qualifies for a post and is appointed, there is still a tacit feeling that the woman is just being favoured.

In the area of politics, it is argued that women could equally stand for elections and be voted for. Most women in Ghana know very well the laws relating to their ethnic groups and religions more than they know of the legal provisions made for them in the country's constitution. The customary and religious laws inhibit women's participation in political and public life and make women accept minor positions.

Chieftancy continues to be a powerful institution in the country. In all ethnic groups, chiefs are usually males, although in a few instances the chief is a woman. In some areas the queenmother selects the chief and plays an advisory role, while the area is ruled by the chief and his elders (all men). There are still situations where major community decisions and life occasions (marriage, funerals) are taken by only a committee of men with women confined to the background. The traditional power structure continues to be significantly a male domain.

Queenmothers in various traditional areas have formed associations, and it is hoped that they will work to uplift the image of women in their communities.



Most villages and towns have development committees that initiate, plan and implement community projects like provision of school buildings, clinics, market places and others. These town or village development committees country-wide have only men as members or at best a meagre representation of women. Women are not prevented from being members. But household duties coupled with their traditionally accepted role make it difficult for women to participate.

Currently, participation of women in all aspects of public life is being encouraged. Women are being urged to take high positions at all levels of government, local, district regional and national as well as in non-governmental organisations, through various channels including formal and non-formal education by NGOs, the Trades Union Congress, FIDA, the media and the NCWD.

### 2.1.2 EDUCATION AND TRAINING

Women constitute the majority of the illiterate population, especially in the rural and urban poor areas.

**Table 1 : Levels of educational attainment of people aged 15yrs and above**

Highest level attained	Male	Female	All
-----	----	-----	----
Never been to school	29.1	49.8	40.3
Less than MSIC*	29.2	26.6	27.8
MSLC/JSS	32.6	20.3	26.0
Secondary & higher	9.1	3.3	6.0
-----	----	-----	----
Total	100	100	100
-----	-----	-----	-----

Source: GLSS 1992

\*MSLC - includes commercial/vocational training

From the table above, almost twice as many females as males have never been to school and less than half as many females as males have secondary and higher education. More males get into the formal educational system than females.

To enable women to play a more effective role in development, the highest priority should be given to increasing their level of literacy and education. Education and training, both formal and informal are probably the most critical factors influencing the effectiveness of women's participation in development.

By improving women's ability to acquire and use more information, education deepens their understanding of themselves, enriches their minds by broadening their experiences, and improves the choices they make as consumers, producers and citizens.

By improving women's confidence and their ability to create and innovate, it multiplies their opportunities for personal and social improvement.

Without education and training, women cannot have access to credit, technology and the skills they need to improve and increase their efficiency in production.

A better educated woman will absorb new information faster and apply unfamiliar inputs and new processes more efficiently.

**Table 2: Female participation rate at various levels of education in Ghana 1989/90 - 1992/93**

LEVEL	PERCENTAGE ENROLMENT			
	1989/90	1990/91	1991/92	1992/93
Primary	44.86	44.99	45.46	45.69
JSS/Middle	41.31	40.79	41.12	41.85
Senior Sec. Sch.	33.01	32.96	33.09	33.48
Teacher Training	42.38	43.93	33.80	32.90
All Poly (Full time)	21.90	23.20	26.70	18.60
All Poly (Part time)	32.50	31.60	34.40	-
Dip. Awarding Colleges	19.40	19.20	20.00	12.20
University of Ghana	19.80	23.10	23.60	24.20
University of Science & Tech.	16.50	17.70	17.60	17.60
University of Cape Coast	19.60	21.50	22.80	24.40
University College of Education	-	-	-	24.20

Source: PBME Division, M.O.E., Accra

Table 2 indicates that female enrollment at all levels lag behind that of their male counterparts. Furthermore, the female proportion declines with an increase in the level of education.

The high drop-out rates in women's education can be attributed to economic and social factors. Parents show preference for a boy's education when confronted with inadequate resources and hold sway to the belief in the traditional sex-roles.

Most girls are compelled to help in the economic activities of their mothers and are overburdened with domestic chores to the detriment of their daily school attendance and private studies. Besides, strained relations with foster parents and financial problems compel girls to enter into trading and relationships with boys only to end up pregnant. This results in premature termination of education.

In addition, low motivation at school manifests itself in low achievement which makes girls consider education as a sheer waste of time. It is therefore essential to launch a programme for mass scale education, especially directed at higher enrolment and

retention of females. When schools open their doors wider to girls and women the benefit from education multiplies.

### 2.1.3 Skills Training

It is recognised that Ghana is not suffering from lack of institutions offering training for technical and vocational trades. Skill training is currently provided by a wide range of institutions run by various governmental agencies, non-governmental and private organisations with the leading role played by the Ghana Education Service (GES) and coordinated by the National Coordinating Committee for Technical and Vocational Training and Education (NACVET) .

Available statistics indicate that girls train more in the traditional feminine areas of Home Economics rather than in Technical areas as shown in Table 3.

**Table 3 : Participation Rate of Girls in Programmes Offered by SSS 3 Students - National - 1992/93**

<u>Subjects</u>	<u>Participation Rate (%)</u>
Agriculture	19.2
Business	39.7
Technical	2.4
<u>Vocational:</u>	
Visual Arts	29.0
Home Economics	80.7
Graphic Arts	29.7
Science	22.3

Source : PBME, MOE, Accra

## 2.2 EMPLOYMENT AND ACCESS TO PRODUCTIVE RESOURCES

### 2.2.1 Employment

employment in Ghana assures women equal pay for work, however, since educational attainment has a great bearing on occupational opportunities, women have found themselves pushed out of formal salaried employment avenues.

In the formal sector, women participate at low levels and mostly as unskilled labour. There are few women in professional, technical, administrative and managerial positions; in fact most of the skilled women occupy lesser positions than their male counterparts.

The informal sector, therefore, constitutes the most important source of employment for the majority of working women in all

sectors of the economy, including manufacturing. Women in the informal sector or in self employment are constrained by one or more of the following:

- The activities of the women are usually extensions of their traditional roles of food processing, sewing and handicraft production, and are, therefore, small scale.
- The low level of educational achievement limits the ability of women entrepreneurs to absorb managerial and technical information. Few keep accounts or records of their businesses, lacking sufficient skills for management and adaptation to changes which could maximise profits.
- Quite often the women are not aware of their technical needs, or technical assistance and training opportunities which could enhance their performance. Even when they are made aware, they lack the confidence to take advantage of them.
- They also lack information on governmental programmes to assist small enterprises and are also found to have limited knowledge of the market and its opportunities.

#### 2.2.2 Access to Productive Resources

In spite of the important and potential role of women in all sectors of the economy, especially as entrepreneurs, they are confronted with :

- limited access to entrepreneur training and availability of trainers and courses
- limited access to appropriate technology due to the general difficulty in choosing appropriate technology and adapting it to local conditions at affordable prices
- difficulty in accumulating capital and lack of access to credit facilities, especially those in micro and small enterprises
- limited access to relevant marketing and product development information
- threats by increasing competition from cheap or more durable imported goods.

Most women entrepreneurs get their start-up capital from family members, trusted friends or money lenders. Since the initial capital is small from the onset, it restricts development of their enterprises; and the enterprises survive day to day generating only a little income and without any long term planning, thus preventing them from acquiring improved tools and production technologies.

For women to be viable recipients of institutional credit, they must first be given assistance to enter the market and gain bargaining power.

There is need for careful analysis of their technical and market situation to ensure that their activities are financially profitable and that they have control over their production and income and how the household production system is organised.

There should be adequate provision of infrastructure, extension, training and marketing support to make women's enterprises more profitable; inadequate training means women are unable to utilise credit effectively.

Formal credit channels are often closed because banking procedures are complicated and banks often require substantial collateral to guarantee the loan.

This can be overcome by organising women beneficiaries into groups to provide group guarantees to replace individual collateral and by using the group mechanism for screening individual members' loans applications and for supervising loan recoveries. In countries where this has been tried, considerable success has been achieved.

### 2.3. GOVERNMENT POLICIES AND PROGRAMMES FOR THE ADVANCEMENT OF WOMEN

Government is committed to intensifying action to fully integrate women in the total development effort. The recognition that women occupy a special place in all efforts to promote their advancement led to the establishment of the National Council on Women And Development (NCWD).

The Council collaborates with numerous women's organisations and co-ordinates efforts aimed at mobilisation, education and development programmes oriented specifically towards women.

Special efforts aiming at the integration of women in rural development have included acquisition of land for women's groups, the stimulation of rural women to undertake sustainable income generating activities, the promotion of research, development and popularisation of labour saving devices and appropriate technology.

The NCWD is, however, plagued with problems of personnel, capital and material sources and therefore needs strengthening and capacity building to promote sustained advancement of women in Ghana.

In the area of education, the government has instituted a series of educational reforms which are aimed among other things at redressing the imbalance in education between girls and boys.

The new educational reforms seek to remove all forms of

discrimination against girls in the choice of subjects and careers. Both sexes are now being exposed to the same types of subjects and guided to make their own choices according to their proven abilities. Again reforms for basic and secondary education have made a radical shift in content by designing non-gender curriculum to sustain the interest of both girls and boys in the new thrust towards greater exposure to technical and practical orientation.

Science, Technology and Mathematics Clinics are organised during the long vacation every year by the Ghana Education Service of the Ministry of Education, with active participation of Women in Science and Technology (WIST), to encourage girls from the secondary schools to study science-related profession.

### **3.0 PARTICIPATION OF WOMEN IN FORESTRY, WOOD AND WOOD PROCESSING**

#### **SUBSECTORS**

The following information has been compiled from discussions with a number of persons involved in the Forestry and Wood Products Industries including Government institutions, Trade associations Non-governmental organisations, and enterprises.

#### **3.1 FORESTRY**

Ghanaians have since long had their lives connected to the forest for their livelihood. Women depend on the natural forest for their own and their families' livelihood. They are totally dependent upon fuelwood for domestic use and economic activities.

Fuelwood and charcoal accounts for about 85% of the total energy consumption in Ghana as in many other developing countries.

In this respect women have been encouraged through a number of awareness creation activities to participate in agroforestry and afforestation programmes (tree planting and nursery raising) to provide a continued source of fuelwood and also help protect the environment from desertification.

There are a number of ongoing programmes involving the Forestry Department, the AgroForestry Department, and a number of NGOs including ADRA, WVI, and local private organisations who have organised women in various communities throughout the country, especially in the northern savannah areas, to go into tree planting as pure stands of woodlots or as part of their cropping practices in alley cropping, wind breaks, border plants or "livestaking" (climbing support) for yam production.

Among the ongoing programmes is the ITTO's Women and Tropical Forestry Development Programme being implemented by the Forestry Department and the 31st December Women's Movement. Women also constitute the primary collectors and processors of Non-Timber Forest Products (NTFPs) - products derived from the

forest other than timber including the following:

(i) Chewing sticks, (ii) Bathing sponges, (iii) Chewing sponges, (iv) Marenthacae leaves, (v) Forest foods, mushrooms (quite scarce), snails (seasonal), wild yam, palm fruits, game (bush meat)

(vi) Plant medicine, (vii) Spices, (viii) Domestic utensils (spoons, mortars, pestles, stools, baskets), (ix) Ropes,

(x) Alcoholic beverages, etc.

Women are the main sellers or dealers of such non-timber forest products constituting about 90% of the total.

### 3.1.1 Forestry Department

Within the Forestry Department, the institution which is involved in the overall protecting, maintaining, managing and renewing of the resources of the permanent forest estate (reserves) women are also employed as professional foresters or auxilliary staff and labourers in the following branches: training, planting, community forestry, research and extension and public relations.

**Table 4 : Employment Status of Women in the Forestry Department**

	Male	Female	Total	% Female
	----	-----	-----	-----
i. Professional Foresters	63	3	66	4.5
ii. Semi-Professional Foresters	32	1	33	3.0
iii. Technical Foresters	543	39	582	6.7
iv. Sub-Technical Foresters (Forest Guards)	1362	53	1415	3.7
v. Auxilliary Staff & Labourers	1821	543	2364	23.0

Source: Forestry Department Records

Table 4 indicates that only 4.5% females are professional foresters while women represent 23% of the total auxilliary staff and labourers.

The women, right after school (Forestry School, Sunyani) are attached to the nursery division of the department whilst the men are sent to the ranges or the stock survey teams.

### 3.1.2 Association of Women in Forestry

Professionals and technical officers (about 200 in the whole country) have come together to form The Association of Women in Forestry with their headquarters in Sunyani Forest School

- to seek the welfare of women in forestry
- to make the nation recognize the efforts and importance of women in the forestry sector.



### 3.2 LOGGING AND HARVESTING ( Primary Processing)

Logging essentially involves felling, trimming, bucking and long distance transport of logs to processing centres. Generally, all wood-based industries depend (either directly or indirectly) on the output of logging for their supply of raw material.

Logging was formerly carried out with simple tools such as axes and handsaws and extraction was done by rolling the logs over long distances into rivers which served as medium for transport. Thus almost all forests around rivers have been depleted.

Now powersaws have replaced the manual methods. Skidders equipped with winches and cables are used to extract the logs economically over a wide range of terrain conditions. (Bulldozers are generally used for the construction of skidding trails and roads). Mobile loaders equipped with loading forks load logs on heavy-duty hauling rigs which are used for the long distance transport.

This is considered amongst the most hazardous of occupations and accidents are rampant - usually fatal if they occur - and although it is an area that is considered the exclusive right of men, a few women were found to be involved.

The women who entered the logging industry did so during the time when the clear felling system was introduced to rid the forest of overmature trees and allow the younger ones to grow. The new entrants into the logging business included market women with the requisite capital to invest either alone or in partnership with other men. Some of the women also entered through family connections, that is, they entered because it was a family business.

The women loggers don't encounter any discriminatory practices but the timber industry has a lot of ups and downs such that it takes great nerve to stand on one's feet and that discourages a lot of women.

In 1978, a government decree SMCD128 authorised the then Ghana Timber Marketing Board to register all women involved in the timber trade. They were 42 in all with 5 from the Greater Accra Region, 35 from the Ashanti Region and 2 from the Western Region.

As at 1986, the Ghana Timber Association (GTA) had 674 members as loggers. Out of this 15 were women; 11 from Kumasi, 1 from Sunyani, 1 from Akim Oda, 1 from Apinimang/Kade and 1 from Duayaw Nkwanta. Each had one concession with lease holding lasting 25 years. However, Bibiani Logging and Lumber Corporation (BLLC) had 2 concessions.

#### 3.2.1 GTA LADIES CLUB

The Ghana Timber Association has a ladies club which brings all women loggers with concessions and probably sawmills, buyers of offcuts and rollers (cores from veneer peeling) and those with export marks but no property mark under one umbrella to make their voices heard. Nationwide, they number about 60. Their aim is to foster the spirit of unity and oneness of women in the timber industry.

The Club intends to buy a plot at the Kumasi Wood Village Estate to set up a secretariat and a workshop to encourage women in the timber industry.

The Club has also acquired plots of land in various parts of Ashanti and Brong Ahafo Regions for plantation developments.

### **3.3 MANUFACTURE OF WOOD AND WOOD PRODUCTS**

#### **3.3.1 Sawmilling, Plymilling, Veneering (Secondary Processing)**

Information picked up on visits to several of the sawmills, ply and veneer mills indicated that few women were employed in this area.

Most of the women were employed in the administrative sections and a rather insignificant number in the factory floor as labourers. The highest number of female employees were found at Mim Timbers Ltd, about 7% of the total staff strength (122 out of 1800).

In all cases the women were mainly in the drying and packing sections in the case of veneering; and sanding and packing in the moulding sections.

No women were involved in operating the machines or doing any skilled technical work.

A few women were found in managerial positions, either as owners or as part of a family business. They maintained that a woman needed to be tough and devoted to duty to be able to manage the wood industry business.

Some of the reasons given for the absence/small number of women in the production sections were that:

1. Most of the mills are export oriented and demanded rigorous and sufficient productivity attitudes towards work. However, women always have a conflict between motherhood or fulfilling domestic activities/obligations and wholetime careers.
2. By far the single most crucial problem with women is absenteeism and they always had a problem with regular attendance which isn't in the best interest of productivity and meeting contract deadlines.
3. Women had the tendency of engaging in malingering lateness,

converging when supposed to be working and making up during working hours.

4. There was the tendency for the young men to flirt with the young women
5. Women considered the wood working industry too rigorous and time demanding and therefore showed no interest.

### 3.3.2 Furniture and Other Wood Products (Tertiary Processing)

Among the products of tertiary wood processing are furniture and joinery, furniture parts, moulding, flooring, toys. The industry is made up of some 200 active manufacturing companies of which 40 belong to the medium/large scale class.

UNIDO reports that the furniture export market requires high standards of design, high quality of raw materials, interchangeable parts, good packaging and regular and on time delivery.

The furniture industry in Ghana basically developed from small carpentry workshops and traditionally training as a carpenter was always the domain of the boys whilst the girls learnt how to sew. The technology of furniture making remains essentially labour intensive but high quality imposes requirements of precision, craftsmanship and design.

There are a few women manning managerial positions in some furniture industries but there are absolutely no women in the technical and operational work, except at Scanstyle Mim Ltd., where a woman was found operating a drilling machine.

A few women are employed along finishing lines doing sanding or spraying.

### 3.4 MARKETING OF WOOD AND WOOD PRODUCTS

This is an area that holds a lot of potential for women. The Forest Products Inspection Bureau and Timber Export Development Board are the 2 statutory bodies that supervise the export and marketing of wood products.

FPIB is responsible for grading and quality control thus ensuring that only high quality products are exported or marketed to help maximise foreign exchange and reduce expenditure. It basically consists of the administrative division, commercial services, training, finance, audit, project unit, data processing, public relations and the timber inspection divisions.

The Kumasi office happens to be mainly for timber inspection and no women are involved in that. Rather, they form the supportive

staff performing clerical duties. It is assumed that the inspection, measurement and grading of wood and wood products, whether at check points or in the mills, are too rigorous for women and the women themselves are not interested in this sort of job.

TEDB publishes market intelligence and reports to inform the trade on developments on the international market with regard to prevailing market prices, direction of trade, stock levels and prices in importing countries. They vet and approve all export contracts. It consists of the market intelligence department, export promotion department, research and statistics, data processing (technical), then administration, finance and internal audit.

The story is quite the same about women forming the bulk of the support group but not specifically active in the technical field.

However, there is one female marketing officer trained at IRNR, UST) making quite an impact. Her experience shows that lack of interest and the social prejudice on gender roles for jobs account for the imbalance rather than discrimination. A considerable potential for women lies in sales promotion.

### 3.5 TRAINING

The manpower needs of the forestry and timber industry are presently served by:

1. Institute of Renewable Natural Resources, U.S.T.
2. Sunyani School of Forestry
3. Sawdoctoring, Ehwia now converted to Wood Industry Training Centre (WITC)
4. Forest Products Inspection Bureau (FPIB) provides some training in grading of wood products for its own staff and for the timber industry.
5. Technical Institutes and Polytechnics - relevant skills in carpentry and joinery, upholstery and woodwork.

#### 3.5.1 IRNR, UST

##### Management Level Personnel

IRNR, U.S.T. is the only institution offering university level education and training for the forestry (forest management) and

forest industry sector.

Established in 1982, it offers a 3-year BSc in Natural Resource Management, a programme that allows specialisation in

- forestry
- wood science and technology (structure and properties of wood; wood processing, utilisation and marketing)
- wildlife
- freshwater fisheries

Specialisation is in the 4th year. The majority of graduates are employed by the Forestry Department.

IRNR also offers a 2year postgraduate course in wood technology and management designed to train potential managers for the wood industry.

IRNR has been responsible for the few trained female professionals in the wood industry. The institute in fact has a policy that encourages women. The policy is to allocate 50% of the places to women but, since the courses are science oriented and fewer females apply for science, the institute gets to admit few females. Even those who enter may do so as a last resort and tend to divert on completion.

Generally, human resource development is one of the hardest hitting problems of the Ghanaian wood industry. Statistically, in 1985, at the start of the programme women formed about 7% of the total graduates trained. By 1992, they had increased to 10.8% as indicated in Table 5 below. It is hoped that as the trend grows more women would be trained to play an active and meaningful part in the wood industry.

Table 5: Past Students of IRNR, UST, Kumasi (as at Sept, 1992)

	Male	Female	Total	% Female
	----	-----	-----	-----
1986/87	83	10	93	10.8
1987/88	100	9	109	8.3
1988/89	105	7	112	6.3
1989/90	101	9	110	8.2
1990/91	107	11	118	9.3
1991/92	156	18	174	10.3
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	652	53	606	8.9
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Source : IRNR Records

**3.5.2 Training of Technicians, skilled/semi skilled/unskilled workers**

(i) The Sunyani Technical Forest School trains Technical Officers for the management of the forest. The percentage of females over the 10 year period from 1982 - 1992 is only 10.25% as shown in Table 6 although the proportion has increased somewhat in recent years.

**Table 6: Technical Forestry School, Sunyani (As at Sept.1992)**

	Male -----	Female -----	Total -----	% Female -----
1982	26	2	28	7.1
1983	22	0	22	-
1984	23	2	25	8.0
1985	24	3	27	11.1
1986	42	3	45	6.7
1987	64	5	69	7.2
1988	64	5	69	7.2
1989	56	9	65	13.8
1990	55	8	63	12.7
1991	60	10	70	14.3
1992	77	13	90	14.4
				-----
			10 Year Average	10.25
				-----

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**Source : Forestry Department Records**

**(ii) Technician Training for the Industry**

- there is as yet no institution for the training of wood industry technicians. The Wood Industry Training Centre at Ejisu, Kumasi is being established for this purpose, and Accra Polytechnic has recently developed courses.

**(iii) Timber Inspection and Grading**

- training provided by FPIB in timber grading to its own staff and for staff from the industry or staff intended to be employed by the industry.

Training is open for all genders but only men tend to apply.

At the Kumasi Technical Institute the boys train as artisans whilst the girls train in upholstery.

This is a very promising and viable area for women in the furniture industry. At present, upholstery such as fabrics, webbing, springs and brad nails are all imported. Only polyethane foam is produced locally.

**3.5.3 Wood Industry Training Center (WITC)**

The Wood Industry Training Centre near Ejisu in the Ashanti Region happens to be a kind of stop gap arrangement to upgrade the manpower used in the sector.

The TEDB under the forest management project, "Forest Inventory and Management", funded by the World Bank and implemented by the UK/ODA, acknowledge that human resources form the engine moving the industry and since the performance is low, it was decided to adopt a non-secular system of training involving seminars, conferences, workshops, short courses and consultancy. Since the industry is dynamic, the centre is not intended to be a regular institute but one which assesses industrial need (by visiting enterprises and determining their performance or efficiency) and the practicability of the skill to the industry eg in sawing. It will form part of a training and development scheme for professional and technical officers to enhance their technical competence and management expertise for higher and efficient productivity.

### Limitation

Unfortunately, the centre is going to be open (at least in the short term) for those already in the timber industry, thus very few women are going to benefit.

A mechanism should be provided to train those employed or unemployed female youth interested in the wood working industry to give them the chance to play an active and meaningful part.

## 3.6 RESEARCH AND DEVELOPMENT

The Forest Research Institute of Ghana (FORIG), Kumasi is the only known research institute that carries out research in forest and forest industries. The Building and Road Research Institute (BRRI), U.S.T., Kumasi is also known to do research (to some extent) into wood for building and construction purposes.

### 3.6.1 FORIG

Staff here are grouped into the research grade (graduates), technical grade (diplomates) and the supporting grade. The different category of staff is indicated in Table 7.



**Table 7: Employment Status of Women in FORIG, Kumasi  
(as at Sept 1992)**

	Male -----	Female -----	Total -----	% Female -----
Research Officers	23	2	25	8.0
Technical Officers	58	10	68	14.7
Administrative & Accounting Staff	31	19	50	38.8
Tradesmen, Field & Laboratory Staff	269	38	307	12.4

According to the Head of the Tree Improvement and Seed Technology Division, interest rather than discriminatory tendencies account for low numbers of women. Certain utterances from male counterparts sometimes are derogatory but striking a good working and human relations with co-workers bring respect and acceptance.

The women normally opt for the less rigorous activities such as nursery instead of field work.

The greatest problem faced by women is the clash of interest between fulfilling domestic and family obligations and regular job attendance. Promotion of a researcher depends greatly on the number of works published. After normal working hours, male counterparts have time to stay and do extra work whilst the females go home to attend to domestic chores. Thus the men get promoted more often on the merit of their work rate.

Also during treks on field work, it is quite inconveniencing when accommodation is scarce and the female has to put up with all the men.

The same problems were outlined by the technical grade staff. However, the supporting grade staff (typing, clerical, accounts) were predominantly women. The story is the same with BRRI.

### **3.7 WOOD TRADE AND COMMERCE**

Traditionally women did not own property so they always dealt with investments that dealt with direct returns. Commerce in Ghana has for a long time been dominated by women and when it comes to buying and selling wood and wood products, they play a very important and meaningful role.

They have traditionally been the collectors of dead wood used for fuelwood (for domestic or commercial purposes). Although the process of conversion of wood into charcoal may be done by men, women have always been the retailers or marketers of charcoal

which forms a high percentage of domestic energy use in the country.

They also retail chewing sticks, baskets, wooden mortars, pestles, wooden utensils and a host of others. What the female labour force lack in skill (due to lack of education) they make up for in buying and selling.

Women dominate by far as the commercial agents for the transfer of mill residue to small scale furniture shops or carpentry shops .

### 3.7.1 Local Marketing of Forest Products

Species for local use are the same as those in demand for export. The local market uses fall-downs from the export market.

The marketing of timber on the local market is done direct from sawmills and plywood plants to:

- individuals for their own use eg. construction, furniture, manufacture, carving or engraving, etc.
- wholesale dealers or timber depots who buy timber in bulk from mills or chainsaw operators and store it to air season or sell it green to users. Such depots are in regional capitals.
- timber depots from whom smaller retailers buy quantities of timber and sell it in other villages and towns to builders, carpenters, etc.

In the timber markets in Accra, Tema, Kumasi and Takoradi, there are small scale sawmills that only resaw and plane chain saw timber for a fee from wholesalers and retailers. Some of these are owned by women.

The most important market areas in Ghana are

(i) Accra/Tema (ii) Kumasi, Bolgatanga and Sekondi/Takoradi. Kumasi and Takoradi are the main timber producing centres. Concentration is highest in Accra/Tema where most of the construction industry and furniture manufacturing are based.

In recent years teak from Forestry Department Plantations has become commercially important for power transmission poles especially for the government's rural electrification projects. Ghana requires an average of 30,000 poles per annum for the project.

Women are involved in the haulage of the poles from concessions to the Wood Treatment Plants, especially DUPAUL, Takoradi.

## 4.0 CONCLUSION AND RECOMMENDATIONS

Women form more than half the population of Ghana but their participation in the Forestry and Wood Products Industries has been found to be low compared to their male counterparts.

However, since the Forestry and Wood Products Industries hold a major key to the development of the national economy, it is imperative to meaningfully plan, develop and improve on women's involvement in the sector.

The wood industry has for a long time been considered as comprising hard physical work and therefore traditionally men were engaged in it. There were social and cultural prejudices against women exerting physical strength; they were rather involved in the cultivation of food crops and collecting firewood and other forest products.

Also, the sector has always been science-biased in terms of logging and processing, but the percentage of women in science and technical areas has been relatively low and therefore their role in the wood industry has been minimal.

Nevertheless, women's involvement or participation in the wood industry can not be ignored or overlooked any longer. As can be seen, the few women engaged in the sector are making significant contributions and indeed act as leaders, dispelling the notion that some professions belong to men.

It is therefore important to make a conscious effort to encourage women to take interest in the industry through training, the development of programmes and provision of incentives for women who show interest in woodwork.

Women could also be trained as machinists, sprayers and as designers of wooden furniture. Also, for the export market, the furniture industry requires more professional and technical expertise for production planning, orderly processing, strict control of materials and processes, machine and tool maintenance, material handling, wood drying, dust extraction and compressed air facilities, inventory control, costing and pricing as well as transport; all of which are areas where women could contribute.

In order for their involvement to be quantified or appreciated as a whole, the following recommendations are suggested:

- Women should be encouraged to discard the notion that some professions are traditionally for men through workshops and the creation of awareness in the academic requirements and prospects in the wood industry. Those women who are in leadership positions should contribute to this.
- Due to the importance of the wood industries in Ghana more females should be encouraged to take wood-work courses in the basic school system where understanding the rudiments or the basic characteristics and properties of wood can better orientate them psychologically.
- The few women in the industry should be used as role models in workshops for awareness creation and also for training attachments to entice more women into the industry.

- Long term loan schemes should be set up to encourage interested entrepreneurs to acquire portable or simple mills and equipments.
- Women should be assisted in having access to technical know-how by being trained in basic industrial production methods and techniques including fabric cutting, sewing and upholstery for furniture.
- Women at the community level should be organised to form partnerships to make use of mill residues for charcoal or as animal bedding for poultry for sale; production of packaging materials and building materials for construction.
- More women should be introduced into the industry by first letting them take interest in the less rigorous areas of the industry eg design, intermediate and finishing operations.

#### **4.1 POTENTIAL AREAS FOR INVOLVING WOMEN AS PRODUCERS**

##### **4.1.1 Development of Plantation Forests**

Increased development of plantations will help reduce women's dependency on the natural forest and increase incomes from

- fuelwood and charcoal burning
- transmission poles for electricity distribution
- increased crop yields from agroforestry practices
- growing of forest trees and shrubs for sale.

##### **4.1.2 Utilisation of mill residue**

It is an acknowledged fact that judicious use is not made of the large volumes of the residues from logging and milling processes in Ghana.

Available information indicates that usually, after trees are felled the butts and the crowns forming a significant volume, are left in the bush to rot. When logs are sent to the sawmill, less than half of the volume of the raw material is recovered as sawn timber.

The residue:- offcuts, trimmings, slabs, edgings and sawdust among others, could serve as raw materials for simple rural enterprises and small businesses that women can participate in, including:

- charcoal production using appropriate kilns in both rural and urban areas
- charcoal briquet production
- reconversion and milling into usable small items
- handicrafts and simple decorative products
- production of local building materials for construction

- packaging materials: fish boxes, fruits and vegetable containers and fishsmoking trays

#### 4.1.3 Marketing and Distribution

The production cycle is completed when goods are distributed to places where they are needed. Women, traditionally have dominated in the marketing of foodstuffs and other goods because they possess the expertise and the skills for the complex organisation of the distributive trade.

Women can therefore extend these skills to the marketing of wood and wood products and establish a well organised distributive system throughout the country.

To enhance their distribution women can later be encouraged to market products from their own established finishing and assembling plants after acquiring the basic training in the areas of:

- Design and upholstery
- Finishing
- Assembly
- Quality control
- Packaging and despatch

#### 4.2 POSSIBLE PROJECT COMPONENTS

- (i) Provide technical support to the on-going agroforestry and afforestation programmes for increased nurseries and demonstration plots
- (ii) Establish appropriate structures for creating awareness and for training more girls and women in proper production processes:

##### Awareness Creation:

- Provide technical assistance, consultants/trainers to organise and run workshops to create awareness for girls and women to recognise the importance and potentials in the forestry and wood products industries
- Link up with on-going Ministry of Education's Science & Maths Clinics for Girls Project by providing Mobile Vans, Video films and other materials, to increase the coverage of Career Counselling of young girls in the Junior and Senior Secondary Schools to pursue Science and Technical Subjects

- Provide methods to overcome any resistance and prejudices to the employment of women where opportunities are available in the wood processing sector.

#### **Training**

- Establish appropriate structures and linkages for providing training to interested girls and women in basic industrial production methods and techniques.
- Develop business advisory support and access to finance for women entrepreneurs to increase their importance throughout the forestry and wood products industries.

(iii) - Develop/disseminate simple technologies for the establishment of rural cottage industries for the utilisation of mill residues.

#### **5.0 ORGANISATIONS AND INSTITUTIONS FOR POSSIBLE LINKAGES**

- Women in Science and Technology (WIST)
- Ghana Federation of Business and Professional Women (GFBPW)
- National Women Training Institutes under the Department of Community Development
- National Coordinating Committee for Technical and Vocational Education and Training (NACVET)
- EMPRETEC - Entrepreneurship Development Foundation
- The African Centre for Human Development
- Ghana Regional Appropriate Technology Industrial Service (GRATIS/ITTUs)
- Opportunities Industrialization Centre (OIC)

Appendix

List of Institutions, Companies and Persons Contacted

1. **Government Institutions:**

- Forestry Department                    Mr. J. B. Darko  
  D/Chief Conservator of Forest  
  
  Mr. Dzoboku  
  Rural Forestry Division
- Agro Forestry Department              Mr. Anane  
  Mr. Richard Twumasi  
  Mr. Felix Hammond
- Extension Division                      Mrs. J. Dennis  
    (Women In Agricultural  
    Development)
- Ministry of Education                  Mrs. Georgina Quaisie  
  Mr. Darymple Hayfron  
  Chief Director  
  Mr. Aggrey
- National Coordinating                  Mr. James Glover  
    Committee for Technical  
    and Vocational Education  
    and Training (NACVET)
- Department of Community              Mrs. Celestine Baryor  
    Development
- Vocational Training and                Mr Andoh  
    Rehabilitation Centre  
    Biriwa
- Forest Research Institute              Mrs. Gyimah  
    of Ghana
- Institute of Natural                    Mr. Kwaku Agyeman  
    Renewable Resources

2. **Trade Associations and NGOs:**

- Forest Products Inspection            Mr. Alhassan Ata  
    Bureau (Takoradi)
- Furniture & Wood Products            Mr. Sackey  
    Association of Ghana                  Mr. Christopher Dadzawah  
    (FAWAG), Accra & Kumasi            Mr. F.N. Mintah  
  Mr. Akowuah
- Association of Bamboo &                Mr. Frimpong  
    Rattan Makers

- Ghana Timber Millers Organisation (GTMO) Mr. Benjamin Sam
  - Ghana Timber Association Ladies Club Miss Emelia Ofosuhene Secretary
  - National Sawyers, Charcoal Burners & Cutters (Nkawkaw Branch) Mr. Benjamin Aidoo Agyekum
  - Wood Industry Training Centre Mr. Gyamfi Sawdoctor
  - 31st December Women's Movement Miss Pamela Wilson
  - Empretec Mrs. Felicity Acquah Deputy Director
  - Ghana Federation of Professional & Business Women (GFPBW) Mrs Margaret Osei Bonsu
  - Women in Science & Technology (WIST) Mrs. Georgina Quaisie
  - GRATIS Mr. Daniel Baffour Awuah
3. Enterprises and Companies:
- a) Sawmilling, Plymilling & Veneering:
- Ejisu Forest Products Mr Ankama  
Mr Aduhene
  - Mim Timbers Ltd Mr Osei - Kusi  
Lt Col. Duah (Rtd)  
Mr Atiase
  - FABI Timbers Mr. Samuel Nti
  - Suntex Ltd. Nana Dwomoh  
Mr. Osafo Wiredu
  - A.E. Saoud Mr. Simon Saoud
  - Timber And Transport (T.A.T.) Mr. S.Y. Mainoo
  - Western Hardwood Ltd. Mr. Farouk Bareke
  - RAD Forest Product Ltd. Anthony Haidimoes
  - Dupaul Wood Treatment Ltd Dr. Duffour



- Intex Co. Ltd.

Mrs. Caroline Awuku  
Eric Dodoo

**b). Furniture & Wood Products:**

- Merki Woodworks Ltd.  
& Shaddai Natural  
Products

Mr. Kurt Merki  
Managing Director

Mr. Daniel Quaye  
Head of Export

- Alfa Trio Ltd  
(Rattan Products)

Mr Francis Boadi  
Miss Patricia Sogah

- Altipex

Mr. John Robert Haizel

- Pee Wood

- Irokko

Mr. & Mrs. Ofori

- Pideck

Kwame Baah Owusu Panin

- Scanstyle (Mim Ltd)

Mr. Nicholas Sarpong  
Mr. Abdul Nasser

- Furwoco Ltd

Mrs Chai

- Art Deco Ltd.

Mrs. Ophelia Akiwumi

- Unique Furnishing Ltd.

Mr. & Mrs. Mouganie

- Cream Timber Moulding

Mr. George Fahmeh

- Beduana Furniture Co. Ltd.

Mr. John Kojo Bedu  
Mr. K.E. Boison

- Yenok  
(Decorative Wood products)

Mr. Andy Koney

- 4 Wings Co. Ltd.  
(Knockdown Chicken Coops)

Mr Sackey