



## GENDER EQUITY UNDER THE MODIFIED TAUNGYA SYSTEM (MTS): A CASE OF THE BECHEM FOREST DISTRICT OF GHANA

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### Abstract

*The study was carried out in the Bechem Forest District of Ghana to examine and analyse issues of gender under the Modified Taungya System. The objective of the study was to find out if there was equity in the distribution of resources between the sexes under the modified taungya system. A total of 141 participants (made up of 40 nursery operators and 101 farmers) were randomly sampled in four communities for administration of a questionnaire. The study revealed that women provided more labour, mostly in less labour intensive activities at the nursery. Access to productive resources, extension services was almost the same for both sexes. Rights to land were varied among communities under the MTS, being influenced by the type of inheritance practised. Findings seem to suggest that women play as equal a role as men under the programme, and the benefits for both sexes seem equitable.*

**Keywords:** *gender, taungya, equity, access, resources, empowerment.*

### Introduction

The “term feminization of poverty” is an expression used to refer to data that the majority of the poor are women (Birte *et al.* 2002). Poverty is understood as a reflection of the inability of individuals, households or entire communities to command sufficient resources to satisfy a socially acceptable minimum standard of living (May 2000). Poverty is also defined as deprivation for resources (physical, economic, social etc) which are needed to achieve a sustainable livelihood (Ketepa-Kalala 1999). More than 1 billion people live in poverty around the world, and a great majority of them are women (Buvinic, 1998). Women’s poverty results in widespread violations of their human rights. When a woman faces a lack of access to adequate food, housing or health care, her human rights are violated. When she lives in an

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unsafe and unhealthy environment or lack of access to clean water, she is not enjoying her fundamental human rights to a life of dignity to an adequate standard of living (Buvinic 1998). Current trends suggest that women account for a growing proportion of those people who are considered poor on the basis of income, not only industrial countries such as the United States but also in the developing world (Buvinic 1998). The International Fund for Agricultural Development estimated the extent of rural poverty in 41 developing countries, which together account for 84% of the total rural developing country population. They found that between 1965-1970 and 1988, the number of women in rural communities living below the poverty line rose more than the number of rural men living below the poverty line, increasing by 47% for women and 30% for men (Buvinic 1998).

### *Gender and Poverty in Africa*

In South Africa, research indicates that majority of black women continue to live under extremely poor conditions in rural areas (Kehler 2000). Although African women participate in all sectors of the economy, their participation rate in the total labour force remains below that of men in Africa (Katepa-Kalala 1999). In sub-Saharan Africa, the incidence of poverty in rural areas tends to be higher than in urban areas. The extent of poverty varies among countries. Côte-d'Ivoire was found to have the lowest level of rural poverty while the Central African Republic had the highest proportion (78%). Although African women participate in all sectors of the economy, their participation rate in the total labour force remains below that of men in Africa. Data for the International Labour Organization shows that women's share of the adult labour force range from 21% to 50%. The lowest rates are generally found in North Africa. The highest are found in Sub-Saharan Africa where women's share of the labour force is between 45% and 50% (Katepa-Kalala 1999). As producers and entrepreneurs, it is widely acknowledged that African women have access to fewer resources than men. Relative to men, they tend to have less access to land, to credit facilities, and to education and training facilities (Katepa-Kalala 1999).

### *Government of Ghana Gender Policy*

The 1998 Gender Development Index (GDI) ranks Ghana as 117 out of the 177 countries. The GDI combines the elements of the Human Development Index (HDI) with other data measuring gender. The Government of Ghana (GOG) is committed to gender equality. It intends to pursue gender mainstreaming throughout the government apparatus and commits to doing so in its National Poverty Reduction Program. The Government has created a new Ministry for Women and Children's Affairs, bringing together two former institutions: The National Council on Women and Development

(NCWD) and the Commission on Children. It is developing (at the draft stage) a National Gender Policy, a Health Sector Gender Policy, and an Agriculture Sector Gender Policy and has mandated all other ministries to develop sector gender policies. In the private sector, both women and men are all affected by the lack of quality services (Helene 2002). Both income-generating and non-income generating activities undertaken by women within the rural economy in Ghana are highly dependent upon the natural resource base. Agricultural production, fuel wood collection, water collection and a variety of processing activities (for both home consumption and sale) are largely conducted by women in the Ghanaian rural economy. Any decline in the quality or availability of natural resources, which affect the rural population as a whole, may particularly affect women (Baden *et al.* 1994). Women make up roughly 85 percent of the wholesale and retail trading industries and about two-thirds of manufacturing, working mostly in the informal sector. In agriculture, women usually grow food which is usually in subsistent basis while men grow cash crops that are grown in plantations and provide significant income for households. This implies that men would be able to generate higher incomes from sale of cash crops which tend to have guaranteed prices than women who produce basically for home consumption. Women bear primary responsibility for child-upbringing, cooking, washing, and collecting fuel-wood and water. Relatively few women work in modern or formal sector activities (Baden *et al.* 1994). Seventy percent (70%) of the population is employed in agriculture and the sector accounts for 40% of national output. Women are very active in farming particularly in food production (subsistence farming) and processing activities. Women are involved in processing of most of the agricultural products – *gari*, shea butter, groundnut and palm oils, fish and cotton products. It is difficult to quantify women's contribution but estimates are between 55% and 60% of total agricultural activities where most women are involved in processing and marketing of agricultural produce.

### ***Justification for the Study***

The *taungya* system is reported to have originated in Myanmar (Burma) and means hill (*Taung*) cultivation (*ya*) (Blanford 1958). Originally it was a local term for shifting cultivation, and was subsequently used to describe the afforestation method. Essentially, the *taungya* system consists of growing annual agricultural crops along with the forestry species during the early years of establishment of the forestry plantation. The land belongs to the Forestry Department, which allow the subsistence farmers to raise crops. The farmers are required to tend the forestry seedlings and, in return, retain a part or all of the agricultural produce (Nair 1993). This agreement would last for two or three years during which time the forestry species would grow and

expand their canopy (Nair 1993). Several alternatives and improvements to *taungya* have been attempted in Ghana, most of them with the objective of providing better living and social conditions for the tenants.

In the 1930s the Government of Ghana launched a plantation development programme using the *taungya* system, devised in Myanmar, in which farmers are given parcels of degraded forest reserves to produce food crops and to help establish and maintain timber trees. The intention was to produce a mature crop of commercial timber in a relatively short time, while also addressing the shortage of farmland in communities bordering forest reserves (Agyeman 2003). Under this system, Ghanaian farmers had no rights to benefits accruing from the planted trees (Milton 1994) and no decision making role in any aspect of forest management (Birikorang 2001). As a result, farmers tended to neglect the tree crops since they would not directly benefit when it is matured. Farmers also realized that if the tree canopy closed, they would be asked to stop farming to enable the establishment of the tree crop which they would not benefit. As a result, most farmers' deliberately killed the tree crop so that they would not be asked to stop farming on that piece of land. The system was suspended in 1984.

The Modified *Taungya* System (MTS) in Ghana was basically introduced to replace the old *Taungya* System which was abused by farmers. Hence, MTS was designed through an eighteen 18 month consultation process initiated by Government of Ghana with support from F.A.O. and World Bank. Under this system, farmers are essentially the owners of forest plantation products with Forestry Commission (FC) and forest edge-communities shareholders. Individual farmers were given parcels of degraded land from the FC to plant tree and agricultural crops until the canopy of trees closes when it is no longer possible to grow annual crops. The farmers thus have total control in the management of their farms. The annual agricultural produce derived from the farm is entirely for the farmer. The FC and other stakeholders only have a share in the tree produce and not the agricultural produce. Thus, equitable benefit sharing framework based on the relative contributions of the participants was developed for the tree produce. Under this framework, farmers would carry out most of the labour including pruning, maintenance and receive 40% of the benefit accruing from the MTS. The FC will contribute technical expertise, training, equipment, tools for the farmers to carry out their functions efficiently and will be responsible for stock inventory and marketing of products and take 40% of the products. Landowners (mostly traditional rulers and individual who inherited land from the parents) contribute land and take 15%, and the forest adjacent-communities (those under which the *taungya* system is located) will provide service (such as prevention of bush fires) and receive 5% of the final product (Agyeman *et al.* 2003). Even though the system has been operational for the past six years it is

not clear how the benefits impact on the individual sexes. African women have limited rights on property especially land. This continues to escalate the cycle of poverty in which they are trapped. The MTS could help improve and bridge the gap between men and women by providing them some degraded land to undertake the project. The information derived would serve as basis for future projects implementation or improvement in the current programme. It is against this background that the study seeks to examine gender equity under MTS to ensure that there is even distribution of benefits. This would help empower women and bridge the income gap between men and women. Thus, the objectives of the study are:

1. To assess the role that various sexes play at seedling nursery by MTS farmers.
2. To assess the level of participation and access of Modified *Taungya* farmers to resources and services.
3. To identify the division of labour, rights and control over land, products and income by MTS farmers.

## **Methodology**

### ***Study Area***

The study was carried out in the Bechem Forest District of the Brong Ahafo Region of Ghana. Four communities were chosen for the study, namely: Bomaa, Eshiem, Yamfo and Nsuapem. These communities were selected for the study on the basis of their active involvement and level of commitment in the Modified *Taungya* System (MTS). Bechem was justifiably chosen because the Modified *Taungya* System (MTS) has been operational for the past six (6) years in the Forest District. The Bechem Forest District lies between parallels of latitude 7°00' and 7°03' north and parallels of longitude 1°45' and 2°15'. It is bordered at the West, East, North and South by Goaso, Offinso, Sunyani and Nkawie Forest District respectively. The population of the District according to 2000 population census was 144,000 people. The breakdown of participating farmers in the various communities is as shown in Table 1.

Jacobson (1992) observed that without addressing the issues of equity and justice, the development goals that are ostensibly universal-- such as the alleviation of poverty, the protection of ecosystem and the creation of a balance between human activities and environmental resources-- simply cannot be achieved. Equity encompasses notions of fairness, justice, equal opportunity and fundamental human rights (Miller *et al.* 1995). It expresses how reasonably the benefits and burdens of a system are distributed among its human beneficiaries (Song 1995).

For analytical purpose, equity can be expressed by a simple relationship:

$$E=f(R, S, D-M)$$

Where E= equity; f=function of; R= access to (and control) over resources such as land, capital, credit, water, etc; S = access to services such as information, extension services, training, education, etc; D-M = access to decision- making power (Ahmed & Laarman 2000).

### ***Profile of Selected Communities***

According to the 2000 population and housing census Bomaa, Nsuapem and Yamfo have a population of 4, 781(2376 males and 2,405 females), 140 (75 males and 65 females) and 8,312 (3962 males and 4,350 females) respectively. The population figures for Eshiem was not gotten, however estimates puts the figure at 500. The inheritance system practiced generally in these communities is the matrilineal system of inheritance. Under this system one belongs to one's mother lineage. It involves the inheritance of property through the female line. However, the exceptions to these communities are the migrant farmers from the northern part of Ghana where the inheritance system is patrilineal. These migrant farmers tend to inherit properties from their fathers line. Generally, land is held by the traditional authorities (Chiefs), Family heads, individual members of the community and the state. The most dominant ethnic groups in these communities are the Akans, whose inheritance system is mostly matrilineal.

Table 1. Participating Farmers in the MTS by the Various Communities

Community	Participating farmers	Number of sampled farmers
Bomaa	100	35
Eshiem	40	14
Nsuapem	29	10
Yamfo	120	42
Total	289	101

### ***Selection of Respondents: Nursery Operators***

Planting of the trees would require the adequate and timely supply of seedlings to the participating farmers in the Modified *Taungya* System (MTS). To achieve this, nursery operators were engaged to produce seedlings under the programme. To enable us select the respondents, the Forest Service Division (FSD), which is responsible for the implementation of the program, was contacted to get the list of nursery operators in the study area: hundreds of names were obtained and separated into two, based on their sex. The nursery operators of each sex were then assigned number and put into different containers. These were thoroughly mixed in the container. Twenty

(20) male nursery operators and twenty female nursery operators were randomly selected for the interview from each sex group. With the help of the Leader, the operators these were identified to administer the questionnaire. Out of hundred (100) nursery operators, forty respondents were selected for both sexes.

### ***Participating Farmers in the Field***

Based on the total number of farmers participating in the MTS in each community, 35% of farmers were randomly sampled from each community (Table 1). A total number of one hundred and one respondents were interviewed. Data was analysed with Statistical Package for Social Scientists (SPSS).

### ***Data Collection***

The study took into consideration both men and women among Modified *Taungya* System farmers and nursery operators, as the questionnaire were designed for both men and women. Structured questionnaires involving various variables were used for the study. All the respondents were made to respond to five indicators from 1-(Very low access to resources) to 5 - (very high access to resources) to determine their access to resources under the MTS. Respondents were also asked to answer 'yes' or 'no' to determine their economic dependents. On the proportion of men's and women's contributions to household expenditures the variable, < 50% for those who contribute less than 50% to household expenditure, above 50% for those who contribute more than 50% to household expenditure and 100% for those who bore the entire household expenditure were answered by the respondents. With the assistance of the leaders of the MTS, personal interviews were conducted with the sampled participants.

## **Results**

### ***Gender Division of Labour at the Tree Nursery***

A starting point for thinking about gender equity is the division of labour between sexes (FAO, 1990). The results in Table 2 show the role the various sexes played at the nursery under the MTS. Significant gender differences was realized for most activities except fertilizing, harvesting of seedlings, and marketing of seedling, storage and preservation. These activities seem to be carried out on equal terms by both sexes. In most of activities such as seed collection, seed sowing, watering of seedlings and care of crops/tending, women contributed significantly higher labour input than men (Table 2). In activities associated with physical strength for example cleaning of site, turning of soil, weeding, preparation of beds and fencing, men provided significant higher labour input than females. Males were more involved in

book-keeping and supervisory work than the females (Table 2). The supervisory and book keeping activities are considered managerial activities which are mostly performed by men. These activities also require minimum skills in education to undertake it. Generally it presupposes that men are influential when it comes to decision making and allocation of resources at the nursery.

Table 2. Division of Labour in Modified *Taungya* System Nursery

Nursery Activities	Mean % of Male	Mean % of female
Seed collection	41.54	51.11
Cleaning of site	48.46	29.63
Turning of soil	34.62	11.11
Preparation of Nursery bed	36.92	7.04
Seed sowing	56.11	68
Fencing	8.75	1.48
Weeding	57.78	46.11
Fertilizing	60.0	60.50
Watering of seedling	44.62	74.63
Polybag/pot filling	22.31	66.11
Transferring of seedlings into polybag	49.23	68.37
Dig out seedlings from soil	24.29	48.52
Care of crop/tending	41.15	65.37
Transporting seedlings	43.85	48.15
Planting	40	49.63
Harvesting (packing) of seedlings	40	40.50
Marketing of seedlings	40.90	41.0
Storage and preservation of seeds	40	40.90
Book keeping	50.60	2.97
Overall supervision	62.3	20.0

*Note:* The percentages show the proportion of the total labour by the nursery workers in Bechem Forest District.

### *Allocation of Time in Productive Activities*

To determine how much time per day was spent by males and females in productive activities, participants were asked how much time they spend on each activity on a list of activities provided to them. The results indicate significant gender differences in almost all categories of work (Table 3). There were differences in time-use among all the communities for most activities except for time spent in marketing of their products accrued from MTS and crop processing for sale. Males spend more time on crop production and



*Taungya* farming than female counterparts. However, females spent more time on MTS Nursery (Table 2) and also on most of the household activities (Table 3).

Table 3. Time-Use in Productive Activities by Gender Average Hours Spent per Day

Time spent in agricultural work	Mean of Bomaa farmers		Mean of Eshiem farmers		Mean of Nsuapem farmers		Mean of Yamfo farmers	
	M	F	M	F	M	F	M	F
Crop production	5.8	5	6.69	4.71	6.2	4.36	6.71	6.19
Modified <i>Taungya</i>	6	5.71	6.77	4.9	6.85	4.57	.29	6.50
Crop processing for sale	0	0	0	1.42	0	0.38	0	0
Marketing	0.92	0.96	2.08	2.54	2.92	2.25	.57	1.75
<i>Time spent in household work</i>								
Food preparation for consumption	0	1.36	0.31	1.22	0	1.58	0	0.44
Cleaning	0	1.23	0.08	1.46	0	1.5	0	0.33
Child care	.25	0.73	0	0.38	0	1.35	0	0.06
Care for others	0	0.08	0	0	0	0	0	0.44
Fuel/charcoal gathering	.12	1.08	0.15	1.58	0	1.6	0	0.19
Watering	0	0.2	0.04	1.77	0.06	0.77	0	0
<i>Time spent in other work</i>								
Paid work	0	0	0.69	0.29	3.3	0.5	0	0
Serving/embroidery/crafts	0	0	0	0	0.93	0.46	0	1.19

Note: M = Male, F = Female.

### ***Access to Resources and Services under the MTS***

Access to resources in this study is the availability and opportunity to obtain those resources and services.

The farmers were asked about access to various resources and services required for the MTS and to evaluate their access on scores of 1 to 5. The results indicate that the Modified *Taungya* farmers have between low to high access to resources in the District. At Bomaa, Yamfo, Nsuapem and Eshiem communities there were no significant differences in access to land, extension services and technical assistance, information and technology and control of income and saving (Table 4). It is believed that males and females enjoy remarkably equitable access to the said resources and services possibly because of their active involvement in MTS and advocacy by relevant groups.

However, the men and women have low access to credit and as well as capital (Table 4). The banks see most agricultural activities as high risk ventures and therefore would not grant loans except when the necessary collateral is provided.

Table 4. Means Scores of Participants on Access to and Control over Various Resources and Services by Gender

Resources/ Services	Bomaa Modified <i>Taungya</i> farmers (BMTF)		Eshieem Modified <i>Taungya</i> farmers (EMTF)		Nsuapem Modified <i>Taungya</i> farmers (NMTF)		Yamfo Modified <i>Taungya</i> farmers (YMTF)		Mean for District	
	M	F	M	F	M	F	M	F	M	F
Access to land	3.79	3	2.00	2.00	2.30	3.00	2.43	2.65	2.63	2.66
Access to capital	2.86	2.36	3.00	2.00	2.23	2.07	2.00	2.05	2.52	2.12
Access to credit	1.21	1.21	0.00	1.00	1	1.57	2.00	1.95	1.40	1.43
Access to extension services and technical assistance	3.5	3.21	4.00	4.00	3.85	4.00	3.71	3.90	3.77	3.78
Access to information and technology	2.93	3.5	4.00	4.00	3.69	3.29	4.00	3.75	3.66	3.64
Access to fertilizer, seeds	1.79	1.57	2.00	2.00	1.92	2.00	1.71	1.80	1.86	1.84
Control of income and savings	4.57	4.21	4.00	4.00	4.00	3.92	4.05	4.00	4.16	4.03

Note: M = Male, F = Female. Scores: 1= very low access; 2=low access; 3=intermediate access; 4=high access; 5= very high access

### ***Rights and Control over Land, Products and Income***

Rights are the legal, social or ethical principles of freedom or entitlement. Rights to the resources were assessed by asking participants on their rights to the various resources. The percentage of respondents answering 'yes' to Holding Rights to Resources is presented in the Table 5. From the table, among the Modified *Taungya* Farmers (MTF) in Bomaa, Eshiem, Nsuapem and Yamfo there were no significant gender differences in their rights and control over consumption of products, sale of products and control on income from MTS products. On the other hand, in Bomaa both sexes hold equal rights and control over use rights of land whilst women in Nsuapem and Yamfo have more rights and control over use rights of land. However, in Eshiem the

males and females have completely no rights and control over use rights of land. Rights and control overland is therefore varied in the district.

Table 5. Percentage Distributions of Participants Answering Yes to “They Hold Rights on Resources”

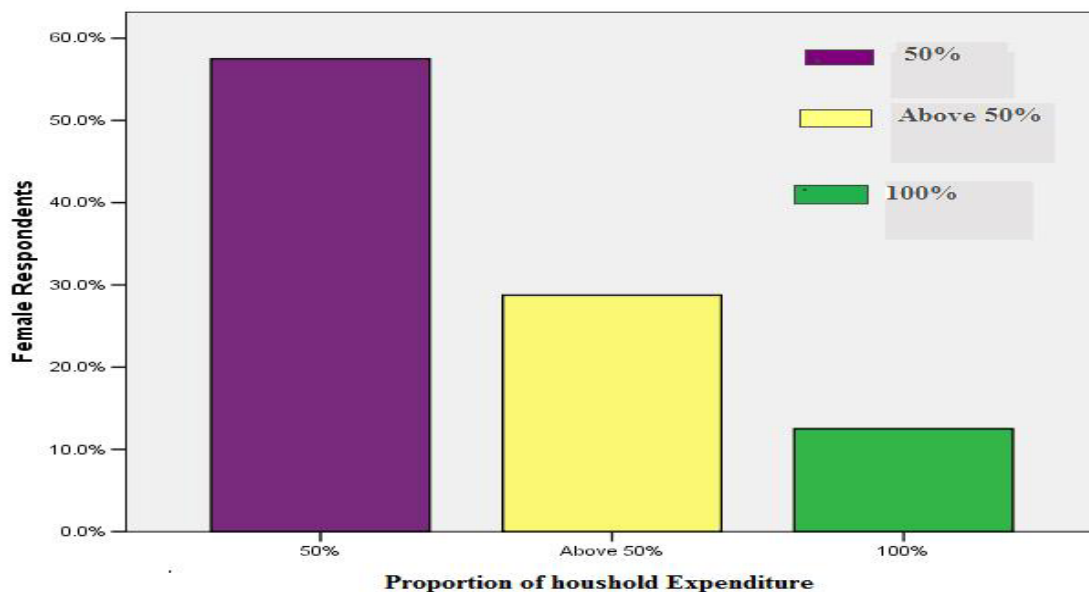
Rights on resources	Bomaa		Eshiem		Nsuapem		Yamfo	
	M	F	M	F	M	F	M	F
Consumption of products	100	100	100	100	92.31	100	100	100
Sale of products	100	100	100	100	100	100	100	100
Control on income from MTS products	100	100	100	100	100	100	100	100
Use rights of land	78.57	78.57	0.00	0.00	46.15	71	42.86	45

Note: M = Male, F = Female

### Women’s Empowerment

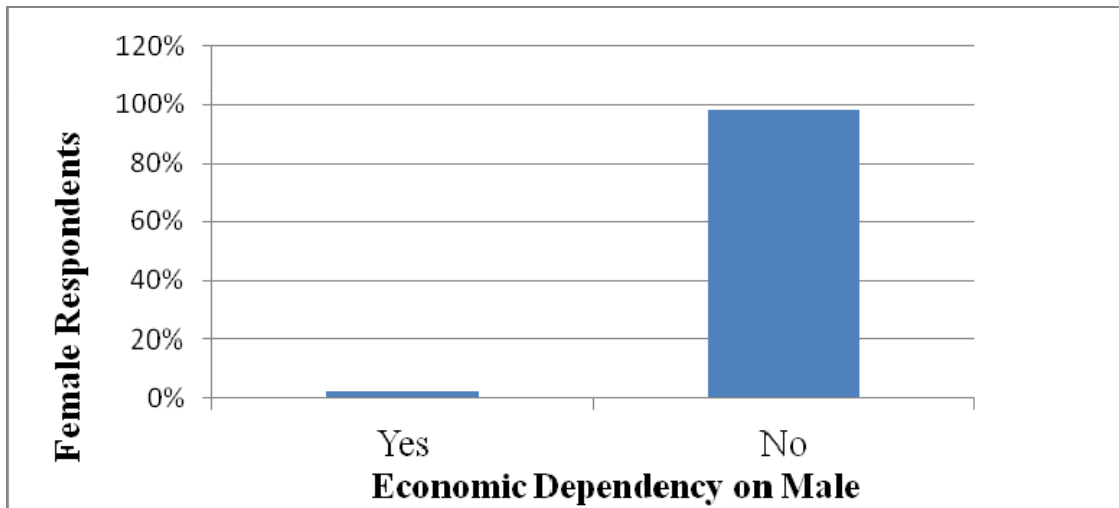
The study revealed that about 57% of women contributed 50% of household expenditure whilst 28% of the selected women borne above 50% of household expenditure. 13% of sampled women had 100% full responsibility of household expenditure. The females are able to support their males financially because of their active involvement in the MTS which has enhanced their financial status (Figure 1).

Figure 1. Proportion of Household Expenditure Bone by Women



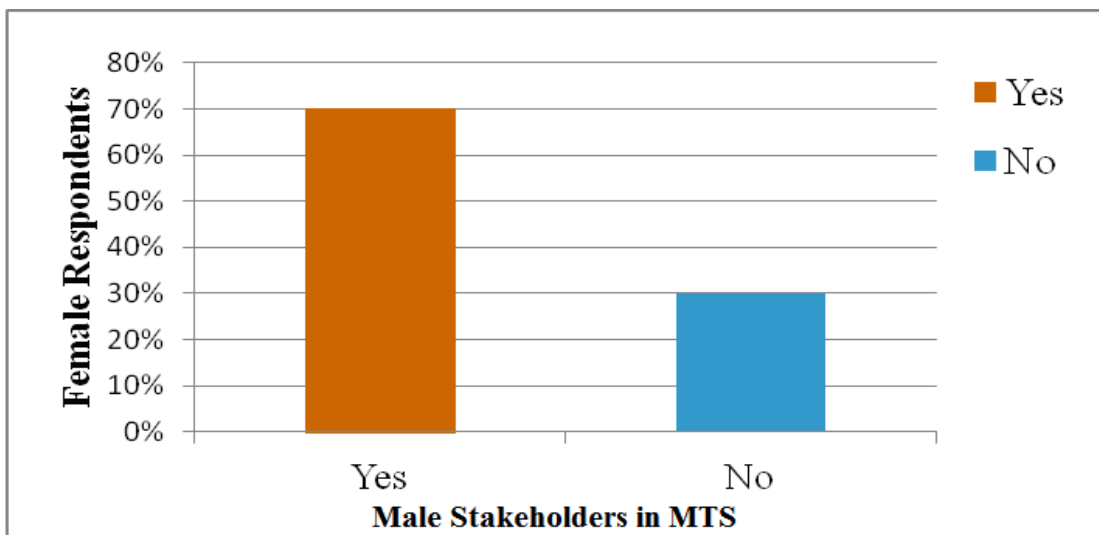
The female participants were asked whether they are economically dependent upon their male counterparts. From Figure 2, 98.% women interviewed said they are not economically dependent on men but 2% of the respondents responded 'yes', implying that they depend on the men. This is perhaps due to equal access and right they have over the sale of products and revenue accrued from the sale of *Taungya* products.

Figure 2. Economic Dependency on Men



Seventy percent of the respondents have their male counterparts being stakeholders of the MTS and 30% of the participants did not have males as counterparts (Figure 3).

Figure 3. Male Stakeholders for Women in Modified *Taungya* System



## **Discussion**

### ***Division of Labour in Modified Taungya System Nursery by Gender***

The study revealed that women provided significantly higher labour input in terms of seed collection, seed sowing, watering of seedlings, transferring of seedlings into poly bags, tending of crops than men. This is probably due to the fact that the women have high level of commitment which has enhanced their participation in nursery operation. However, the men provided significantly higher labour input in cleaning of site, weeding, turning of soil and fencing than the women. This is perhaps due to the nature of the work which demands a lot of physical energy. From the survey conducted, it was observed that the men are more involved in supervisory duties than the women. It was also found that the males are more involved in book keeping than the females. This is attributed to the high percentage of men that have attained the minimum level of education. Creating the necessary environment and education opportunities for females would enable them take managerial roles at the nursery. The high illiteracy rate of women does not allow them to play significant roles in managerial and decision making. The high percentage of men in bookkeeping and supervisory roles shows that men would be influential in nursery activities

### ***Allocation of Time in Productive Activities***

The study conducted to assess how much time per day was spent by males and females in productive activities revealed the following observations. The data suggest that females spent greater hours of time for household activities among the farmers under the MTS. This is similar to the observation made by Wickramanghe (1992) that the gender inequity in forestry is conditioned by cultural pattern, differences in physical strength, the greater expendability of men and housekeeping tasks borne by women. This has perhaps contributed to their inability to commit more time to MTS farming and crop production. Men spent more time on *Taungya* farming and crop production. This is because men take up most financial responsibilities at home; therefore there is the need to engage in much more productive work to earn income. Men also have the tendency to engage in long term investment and cash crop production. In agricultural activities women spent more time in marketing of produce and crop processing for sale. These roles seem to be the traditional roles that they play in the society: it is the duty of the woman to send the produce to the market for sale and to process the produce in such a way that it would be accepted by consumers.

### ***Access to Resources and Services***

Questions were posed to the participants to ascertain their level of access to various resources and services under the MTS. It was observed that there is

more gender equity with respect to land, extension services and technical assistance, information and technology and control of income and saving. This finding did not corroborate the assertion that men in general control major resources supported by a strong patriarchal cultural tradition. It is believed that as a result of the consistent advocacy by women's groups and the keen interest of participating women have culminated in the equitable access to these resources and services. Under the MTS, portions of degraded land are given to individuals to cultivate. This is given without any discrimination to either sex. Previously, it was thought that women would not be able to work on plantations and therefore were deliberately discouraged from doing so. As a result of societal perception on the ability of women to plant trees they were generally not given land to plant trees. The situation has improved under the MTS system since the discriminatory factor such as land has been overcome by the release of degraded land to farmers. Nonetheless, survey revealed that both sexes have low access to credit. This is due to their inability to provide collateral to enable them to access loans from the banks. Banks also find agricultural activities as high risk ventures. The threat of wild fires to tree plantations development could be a great disincentive for banks to grant loans.

#### ***Rights and Control over Land, Products and Income***

There was a significant gender difference in all the communities with respect to use rights of land. In Yamfo and Nsuapem the women hold most use rights of land. The outcome attained may be the result of the matrilineal system of inheritance which tends to recognise the women as the owners of land. Land in these communities can also be held by chiefs, family heads and the state. There are options for other farmers to obtain land through these other sources. In Eshiem both sexes have less control over land since they are mostly migrant farmers from the Northern sector of Ghana. They are mostly migrant farmers who might possibly not have use to rights of land. Long term investment in tree planting would require absolute control and right to land. This perhaps account for the low percent of farmers interested in tree planting.

#### ***Women's Empowerment***

The females were subjected to four indicators of empowerment. The study indicated that most women contributed to household expenditure. Traditionally, it has always been the duty of the man to take the entire expenditure of household. If women are now contributing to household expenditure it is because of the income they derive from other sources including the MTS. Most women contributed less than 50% to household expenditure. This is significant, since men bore the entire household

expenditure previously. In households where women bore the entire household expenditure, they could be female headed households. They are probably divorced or have lost their husbands. It was also observed that a greater proportion of the females are economically independent. This is possibly because of their active involvement in the MTS and the economic dividend they might have accrued from the sale of the *Taungya* products. Women are not marginalized under the program.

### **Conclusion**

Women are mostly involved in nursery activities especially in less labour intensive work. Their men counterparts are more involved in the field or farming activities under the program. Most of the supervisory duties were also done by men due to their ability to read and write. This means that men are still dictating the activities and taking decisions at the nurseries. Men spent more time for the MTS and the women spent more of their time in household activities and it goes to emphasize the traditional roles that women play in housekeeping. It is worth noting that despite the fact that women were mostly engaged in house activities, they spent a significant amount of their time on the farm. Cumulatively they could be spending more time in all activities than their male counterparts. Rights to land were influenced by the type of inheritance practised in a community. However, since most of the farmers had access to degraded land released by the Forest Service Division this was not a discriminatory factor and further enhanced women participation in MTS. Access to other services was not discriminatory as both sexes had equal access. Generally, the MTS is gender friendly and it gives women the opportunity to participate and improve upon their living standards. It is recommended that nursery operations be streamlined to make women also have influence in decision (supervision) and have the ability to do the book keeping activities. This can be achieved by educating literate women to take interest in tree nursery programs.

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