

Changes in gender division of agricultural tasks in Delta State, Nigeria and implications for agricultural extension services.

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Abstract. Understanding the changes that have taken place in gender division of agricultural tasks, especially in the area of food crops production, is essential to the success of agricultural development programmes. This study analyses changes that have taken place in the patterns of involvement of wives and husbands in agricultural tasks related with cassava production between the last decade (1990 -1999) and the present (2000-till 2005). Wives are now more involved in traditional husband tasks like bush clearing, stumping/stubble burning, tilling and fertilizer application, while their husbands have become less involved. The hypothesis tested confirmed this finding as it revealed significant differences between husbands involvement in the two decades. Implications of the findings for agricultural extension services include appreciation and utilization of gender role analysis as an important part of planning, training and recruitment of more female extension agents to enhance adequate information and innovation flow to women farmers, and extension of agricultural extension and institutional supports to women in order to make provision for the changes.

Keywords: gender division in agriculture, agricultural tasks, agricultural extension services

Introduction

The conceptual distinction between sex and gender developed by Ann Oakley is a useful analytical tool to clarify ideas and has now been almost universally adopted (ARMT1, 2001). According to this distinction, sex is connected with biology, whereas the gender identity of men and women in any given society is socially and physically (and that means also historically and culturally) determined. To determine gender, social and cultural perceptions of masculine and feminine traits and roles must be taken into account. Being a man or woman in most societies means not only having different biological or physical characteristics, but facing different and well defined social expectations about the appearance, qualities, behaviour and work appropriate to being male or female.

Division of labour and responsibilities of males and females is a social reality in all societies. The subject of gender, according to Olawoye (2001) concentrates attention on the obligations, privileges and duties assigned to men and women in society and the relationships between them. In the African society, there are tasks meant for men and those meant for women. This task differential translates also to the agricultural process.

In the Eastern part of Nigeria, according to Adisa and Okunade (2005), men were doing back breaking farming operations of bush clearing on the farms, bush burning and mound making, staking and tilling, but as a result of rural-urban drift women have taken over such difficult back breaking agricultural operational tasks from men. Women now do these in addition to planting, weeding, fertilizer application, harvesting and marketing. In another study carried out by Olawoye (1985), it was confirmed that Oyo State women farmers were, in addition to bush clearing and burning, 50%, 98%, 85%, 91%, 92%, and 79% involved in planting, weeding, harvesting, transportation, processing and marketing respectively.

Women's role in agriculture is governed by socio-cultural and economic factors (Adisa and Okunade, 2005). For instance, in Northern Nigeria, Muslim women confined to the *pudah* are found mainly in the processing activities of agriculture. Some of them have personal farms which are managed by their husbands. The role of Nigerian women encompasses other agricultural sub-sectors like fisheries and livestock, but they are mostly engaged in arable crop production.

There is a need to study the changes in the gender tasks in agriculture in order to understand the magnitude of change in the study area since there have been changes in other localities. Culture is not static, and the dynamics of culture is ruled by a series of factors that may be economic and social in nature. The understanding of such changes goes a long way in enhancing the delivery of extension services.

Objectives

This study aimed at discovering the changes that have occurred in the gender related tasks in agricultural process in the central agro-ecological zone of Delta State, Nigeria, and the implications for agricultural extension services. Specifically, the study was aimed to:

- i) Identify the traditional gender related tasks for men and women in arable farming process in the last decade (1990-1999).
- ii) Unveil the practice in recent times of the present decade (2000-till date) that is, the changes that had taken place.
- iii) Ascertain the reasons for such changes in gender related tasks.
- iv) Confirm if there is significant changes in men's involvement in the tasks.

The central hypothesis (H_0) of this study was that there is no significant difference between the agricultural task involvement of men in the last decade (1990-1999) and in the present decade (2000 onwards).

Methodology

The research study was carried out in the central agro-ecological zone of Delta State, Nigeria. The major tribe of this zone is Urhobo. However some good percentage of Ijaw, Itse kiri, Yoruba, Igbo, and Ishan reside in the area. The study area consists of eight local government areas which include Ethiope East; Ughelli North, Ethiope West, Ughelli South; Okpe; Sapele; Udu, and Uvwie Local Government Areas.

The area falls within the fresh water rainforest zone. The major crop cultivated is cassava. However other food crops like yam, cocoyam, maize, melon, plantain and banana; and vegetables are grown among others. The soil is generally fertile for both food and cash crops. This study was carried out on cassava farmers.

Sampling Procedure and sample size:

Purposive random sampling technique was used to select thirty (30) women farmers from each village randomly selected from each local government area. Selection of the respondents from the villages is indicated as follows: Eku in Ethiope East (30), Ofoma in Ughelli North (30), Aladja in Udu (30), Ugborodo in Uvwie (30), Ijenisa in Ethiope west (30), Ibada-Amukpe in Sapele (30) Oha in Okpe (30), and Oginibo in Ughelli South (30) totaling 240. The figures in parentheses indicate the number of respondents from the village selected from each LGA. The study was conducted between March and December 2005.

Data collection and data analysis

Primary data were accessed by the administration of a structured interview questionnaire, while secondary data were generated from published works. Data were analysed using simple descriptive statistics such as frequency distribution, percentages and mean. The means were derived from 4-point Likert type scale of Strongly Agree=4; Agree = 3; Disagree =2; and strongly disagree = 1. The hypothesis was used to address objective 'iv' which was tested by Chi Square analysis.

Results

Demographic characteristics

Age: as indicated in Table 1, 90% of the respondents were of the age bracket of 30 -49 years. This implies that they were above teenage age and were already adults.

Marital Status: the majority, 82% were married; 7.5% were single; 5% divorced; 3% widowed; and 2.5 % were separated. This shows that most of them had responsibilities. This signifies much load on their shoulders.

Educational level: 8% of the respondents had one form of education or the other. Just 2% had no formal education. The implication is that they were informed enough to understand gender related tasks in relation to their farming activities or practices.

Size of family: nearly half, 41%, had family sizes of six (6); 13% had family sizes of seven (7); while 2%, had family sizes of ten (10). In all, 70% had family sizes of between six (6) and ten (10). The significance is that the majority of the women had large families to cater for.

Table 1: Demographic characteristics of respondents

Variable	Frequency	Percentage (%)
Age (Years):		
Less than 20	15	6
20-29	42	18
30-39	80	33
40-49	93	39
Marital Status:		
Single	18	7.50
Married	196	82.7

Separated	06	2.5
Divorced	12	5.0
Widowed	08	3
Educational Level:		
Not formally educated	05	28
Adult & non formal education	21	9
Attempted primary education	09	4
Primary education	98	41
Attempted secondary education	11	5
Secondary school education	82	34
Tertiary education	14	6
Size of Family:		
2	16	7
3	18	8
4	16	7
5	21	9
6	98	41
7	31	13
8	7	3
9	13	5
10	20	8

Traditional gender related tasks in arable farming in the last (1990 -1999) and in the present decade (2000 -till date)

In comparing the arable farming tasks in the period of 1990-1999 (last decade) with 2000 until date, it was found that wives were more involved in bush/land clearing; stumping/stubble burning, tilling and fertiliser application in the present decade than in the last decade with total percentage difference of 59% (wife only) in those aforementioned traditional male arable farming tasks; while husbands were becoming less involved in those male traditional farming tasks (Tables 2 and 3). In regard to those tasks that were traditionally wives' such as planting, weeding, harvesting, processing and marketing, their involvement became higher, while husbands were much less involved in the present decade (2000 until 2005), these tasks being almost exclusively performed by wives.

Table 2: Traditional gender related tasks in arable farming in the last decade (1990 – 1999).

Task	Wife only /wife more than husband (%)	Wife & husband equally (%)	Husband only /husband more than wife (%)
Bush /Land Clearing	5	10	85
Stubble burning /Stumping	5	17	78
Tilling	4	17	79
Planting	88	8	4
Fertilizer Application	17	25	58
Weeding	92	6	2
Harvesting	96	3	1
Processing	98	1	1
Marketing	87	8	5

N=240

Table 3: Traditional gender related tasks in arable farming in the present decade (2000 till date)

n=240

Task	Wife only /wife more than husband (%)	Wife & husband equally (%)	Husband only /husband more than wife (%)
Bush /Land Clearing	24	32	43
Stubble burning /Stumping	29	45	25
Tilling	11	40	49
Planting	90	6	4
Fertilizer Application	25	45	30
Weeding	92	6	1
Harvesting	97	3	0
Processing	98	1	1
Marketing	89	7	4

In the wife and husband equally' columns, the wives' involvement in the male tasks in the present decade (2000-2005) is also more evident than in the last decade (1990-1999). For bush/land clearing, it was 32%; stubble burning/ stumping, 45%; tilling, 40%; and fertiliser application, 40% in 2000-2005 compared to 10%; 16%; 17% and 25% responses respectively in 1990-1999.

Reasons for the changes in gender related tasks

Table 4 indicates that the reasons that met the cut-off mean score of 2.50 included size of their family (3.86), changing economic condition (3.81), absence of husband (3.10), children's education (2.75), quest for financial independence (2.53) and single parent hood (2.50).

Table 4: Reason for changes in gender related tasks

Reasons	Mean
Single Parent hood	2.50*
Absence of husband	3.10*
Divorce	2.30
Changing economic condition	3.81*
Quest for financial independence	2.53*
Children's education	2.75*
Size of the family	3.86*

Cut-off score = 2.50

> 2.50 = reason; < 2.50 not a reason

* reason

Hypothesis test of difference in male involvement in their traditional farming tasks between the last decade (1990-1999) and the present decade (2000 until date)

The Chi-square analysis of data collected on involvement of husband in their traditional farming tasks in the last decade (1990-1999) and the present decade (2000-2005) shows there was a significant difference between the agricultural task involvement of men in the last decade (1990-1999) and the present decade (2000-till date).

Discussion

The findings of this study are in consonance with Prakash (2003) who posited that with the acceleration of crop-diversification programmes and the transformation of agriculture to commercial levels, women's lot had been even further worsened by the addition of new burdens which they have to shoulder in order to realize profits in farm operations. Changes have really occurred in the gender related tasks with wives finding themselves involved more in male tasks in this decade than in the previous one. According to Ahmad and Ismail (1998), women were more involved in agricultural tasks than their husbands. It is quite interesting that farm wives now carry out former male dominated or traditionally assigned tasks. Meanwhile, men were getting less involved in farming operations.

These changes in the gender related tasks were prompted by the sizes of their families. Many Nigerians believe in having many children and they do have many children. This is more so when some of them are polygamous. As a result of this, rural women who are obliged to attend to all household chores, children's welfare, nutrition and family cohesion along with farm work, are desperately driven to adopt a survival strategy to save the family food security from total collapse (Prakash, 2003).

The ever-changing economic conditions in Nigeria have altered the culture of the societies in Delta State. As a result of the hardship, women have resorted to combining male designated tasks with their female dominated tasks. Rural poverty has increased in the state particularly for farmers as priorities have been directed to the industrial and services sectors.

Absence of their husbands as a result of rural –urban migration has led to "feminism of farming" According to FAO (2006), in many rural areas of the world, an increasing number of men are moving to the towns or to other countries in search of better paid jobs. One result of this migration is that the number of female-headed households is growing. This leaves the women with no other option than carrying out farming tasks culturally meant for men.

The future of their children is of paramount interest to mothers. With the rising cost of education, the women work harder in order to see that the children are not deprived of formal education, even for a day. Rural women are always obliged to attend to the welfare of their children and they do not always wait for their husbands before they do what they should do to save a situation.

Many rural women, especially those married to polygamous husbands, do not always want to depend on their husbands for each of their financial needs. They get engaged in their personal farms in order to make money.

Some rural women are single parents. They therefore become the bread-winners of their homes. In order to make both ends meet, they get involved in male farming tasks especially when the money is not there to hire paid labour for such tasks. There is always cultural alteration when conditions at the micro-level change and when people are pushed to the wall as a result of poverty.

Implications

Several implications for extension services can be drawn from the findings of this study.

Extension programme objectives aimed at increasing arable crop production should be based more on the needs of women farmers consistent with the changing pattern of gender related tasks. It is therefore necessary that extension services officers and planners appreciate and utilise the gender role changes analysis as an important part of program planning.

It has been discovered that in spite of the active involvement of women in agriculture, an analysis of the content of extension programs, carried out and conducted by the Department of Agriculture, the Farmers Organisation Authority, and the Community Development Ministry of Land and Rural Development revealed that the contents of programme for women was related to their domestic role (Ahmad, 1994). The contents and the delivery of extension services need to be reviewed in relation to the changes in the gender related tasks to focus heavily on women. On this way, attention should be paid to both the domestic and productive roles of women so that they are not deprived of necessary agricultural resources – information and innovations. According to FAO (2006), extension services frequently fail to provide adequate information to women farmers through failing to recognize their specific needs.

In consideration of women as potential beneficiaries of agricultural development information and technology, there is the need to train and recruit more female extension agents. This is expected to increase the frequency of contact and time with women farmers. This will aid information flow between women farmers and extension agents, as the male extension agents are often mistrusted by the husbands, to be likely to have illicit affairs with the women.

The difference in the agricultural task involvement of men in the two decades (1990-1999 and 2000 onwards), indicated that men had become less involved in farming and this translates into 'take-over' of such tasks by women. Women have taken-over most of the male related traditional farm tasks. This evidence is in agreement with Boserup (1970) and IFPRI (1995), who posited that on a continental-wide basis, about 60-80 % of the labour input in agriculture is provided by women in Africa. Case studies in African countries show that women's roles in agricultural and domestic duties continue to be disproportionately high (FAO 1985 and Adekanye 1998). The reasons for this difference were stated in Table 4 above. These included mostly the sizes of their families, changing economic conditions, absence of husbands, children's educational expenses and quest for financial independence.

Women should be given agricultural extension support, so that they can continue to be a positive and leading force on food production. This statement is supported by Ogbonna and Okoroafor (2004) as they consider that given institutional support and representation, women would continue to be a positive and leading force in subsistence agricultural production.

The gender tasks of women in arable farming have increased and it is conceivable that one would find similar patterns of focus on women farmers, with female extension agents concentrating on women farmers. It is expected therefore, that the findings of this study and implications deduced could be passed on to agricultural extension educators in places where women make meaningful contributions to agricultural development.

With respect to generalisation of the findings of this study, this pattern of changed roles of women's farming activities or operations in the study area looked very similar to the patterns in some other West African countries.

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