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IMPACT OF TRANSPORTATION BURDEN ON AGRICULTURAL PRODUCTION AMONG WOMEN FARMERS IN IDANRE, NIGERIA.

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Abstract

Apart from the fact that women represent majority of rural agricultural smallholders in Nigeria, they are also responsible for head porterage transportation of agricultural products from farm sites to the barn, market and to their various houses. This study assessed the burden involved in transportation of agricultural products by rural women in Idanre L.G.A, Ondo State, Nigeria. Participatory Rural Appraisal (PRA) Technique specifically transect walks was used to explore the minds of the respondents in order to assess the burden and time taken in the transportation of agricultural products by them. Five (5) different settlements were randomly chosen for the study in the L.G.A. The result revealed that inaccessibility, bad road conditions, costs of transportation, subordinate nature and poverty are the reasons given by rural women for transporting agricultural products by head. Furthermore, lack of women's involvement in decision making on agricultural production was also identified as one of the reasons for women's transportation burden of agricultural products. Some of the implications of the findings include: women should be part of decision making on agricultural production, conditions of rural roads should be improved upon and women should have equal access to agricultural resources like their men counterparts.

Keywords: Agricultural Production, Infrastructural facilities, Gender, Rural Areas and Ondo State

Introduction

Agriculture remains the bedrock of many developing countries including Nigeria. Rural small holder farmers formed about 75% of the rural population. Majority of these small holder farmers are poor and hungry people who live in rural areas and rely on agriculture to feed themselves and their families (IFAD_ILO_IFRTD, 2008). Sustainable food production is the first pillar in food security and hence household food and nutrition security relies heavily on rural food production which contributes substantially to poverty alleviation (Ogunlela, 2009). In Nigeria, various governments have launched different programmes to alleviate poverty and most of these programmes laid emphasizes on increased agricultural productivity. However, agricultural productivity cannot be increased without an improvement in rural transport systems so as to have efficient and effective marketing of agricultural products. Any programme that focuses on improvement in rural road transport will definitely have positive effect on increased agricultural production. This is because transport plays a very crucial role in agricultural production and one of the reasons for increase in the prices of food generally in Nigeria and other developing countries is transportation cost.

Rural women play crucial roles in farm tasks and are generally responsible for head loaded transportation of agricultural products. For instance in a study carried out by Tunde, (2005) on the differences between men and women in agricultural production in Oke-Ero L.G.A, Kwara State, it was discovered that 80percent of the rural women transport agricultural produce from their various farms to the market. Similarly, F.A.O (1983) reported that rural women spent 80percent of their time daily in transporting agricultural products. This is basically because in agricultural production, women are not usually involved in decision making like men as a result of their subordinate roles, hence the World Bank, (2003) reported that in Nigeria women contribute between 60 and 80 percent of labour particularly in subsistence food production as well as in all sub-sectors of agriculture, such as crops, livestock, fisheries and agro-

forestry. Studies such as (Goeff 2000, Fernando and Porter, 2002) have reported that women contribute between 75% and 85% of the total rural transport in Nigeria. They play important roles in the development of agriculture generally in the rural areas. According to Ipingbemi and Aloba (2005), rural women convey most farm produce and farm inputs to and from the villages because rural traffic are not cost efficient. Women and girls trekked long hours transporting agricultural products and when they get home, they still process and prepare food for the family. Hence, this paper identifies the burden faced by rural women in the transportation of agricultural products in Idanre Local Government Area of Ondo State, Nigeria. The specific objectives of this study include: Firstly: to examine the average time taken by rural women in the transportation of agricultural products; secondly is to identify other economic activities performed by rural women that involves trekking long distances; and thirdly, to suggest some planning implications for the study.

Participatory Rural Appraisal (PRA)

The growing awareness of the failures of conventional development approaches in meeting the needs of resource-poor people has led to the exploration of alternative methodologies for investigating resource management issues and planning (Olawepo, 2008). One of these methodologies is PRA technique. Participatory Rural Appraisal (PRA) is a qualitative tool that is considered as one of the popular and effective approaches to gather information in rural areas. This approach was developed in early 1990s with considerable shift in paradigm from top-down to bottom-up approach, and from blueprint to the learning process. In fact, it is a shift from extractive survey questionnaires to experience sharing by local people. PRA is based on village experiences where communities effectively manage their natural resources. It is a methodology of learning rural life and their environment from the rural people. It requires researchers/field workers to act as facilitators to help local people analyze their knowledge of life and conditions, plan and take action accordingly. It is based on the principle that local people are creative

and capable and can do their own investigations, analysis and planning. PRA has sources in activist participatory research, agro ecosystem analysis, applied anthropology, field research on farming system and rapid rural appraisal (Chambers, 1994:953).

The basic concept of PRA is to learn from rural people. Chambers (1993) has defined PRA as an approach and methods for learning about rural life and conditions from, with and by rural people. He further stated that PRA extends into analysis, planning and action. PRA closely involve villagers and local officials in the process. Participatory Rural Appraisal (PRA) offers a creative approach to information sharing and a challenge to prevailing biases and preconceptions about rural people's knowledge. Advocates of participation argue that the production of knowledge and the generation of potential solution should be developed with those whose livelihood strategies form the subject of research (International Institute for Environment and Development, 2000). The difference between this and other approaches in research and planning is seen in the roles of the learners (planners, research, NGOs, government agencies etc) and the rural people. The learners are facilitators of the local people's ways of life while the people teach and share their ideas, knowledge of life, and technical know-how, conflict resolution, process of livelihood and evaluating capabilities among others. Thus, they fully partake in decision making about their own development.

Three things emanate from these assertions. Firstly, is a planning strategy wherein the people you are planning for effectively participate in the planning, implementation and evaluation of projects affecting their lives. Secondly, it is a technique of collecting and collating reliable information and data from the rural people about their livelihood. Thirdly, PRA is a tool where the local people share their knowledge of livelihood, thus teaching researchers and planners of their experiences within their environment. Some PRA techniques include

Direct observation and Do it yourself

This is a situation whereby villagers teach the researcher how to do various activities. Probing questions such as What? When? Where? Who? Why? How? are usually asked in order to gain an insider's perspective on a situation. In this case, villagers are the "experts" and attitudes are challenged.

Transect walks and guided field walks

This technique enhances the researcher or planner and key informants take a walk through areas of interest thereby observing, listening, identifying and asking different questions from the local people. This will enhance identification of problems and providing possible solutions. Findings can therefore be mapped out by the outsider quickly about topography, soils, land use, forests, watersheds, and community assets.

Participatory mapping and modeling

In this technique, local materials are used by the villagers to model current or historical conditions such as forests, watersheds, farms, residential areas, soils, water sources, wealth rankings, household assets, land-use patterns, changes in farming practices, constraints, trends, health and welfare conditions, and the distribution of various resources.

Focus Group Discussion

This usually a brainstorming exercise among local people especially groups like farmers' groups, or people using the same water source can be grouped together to discuss issues affecting their lives or a particular problem that needs attention or solutions.

Force Field Analysis

In this method, the researcher will visually identify and analyze forces affecting a problem situation, character, simplicity, suitability for group work and applicability in planning.

Matrix scoring and Ranking

This technique is used to discover local attitudes on various topics. It involves the use of local materials to draw a wide range of matrices for people or participants to choose. Ranking involves requesting the villagers or the people you are planning for to rank issues or a particular problem from worst to best. Wealth criteria can be identified and relative position of households established through the use of wealth ranking. People can be asked to sort cards representing individuals or households either from rich to poor or from sick to healthy.

Seasonal calendars

Stones, sticks and seeds are used to represent variables such as rainfall, labor, income, expenditures, debt, animal fodder or pests, and harvesting periods. These will show variations and seasonal constraints from month-to-month to highlight opportunities for action. An 18-month calendar will give better illustration in variations than a 12-month calendar.

Key probes

This technique takes the form of a question in addressing a key issue. Different people will be asked the same questions and their responses will later be compared. The question might be something like "If my goat enters your field and eats your crops, what do you and I do?"

Daily-activity profiles

Daily-activity profile has to do with the researcher exploring and comparing the daily-activity patterns of men, women, youth, and elders. The researcher will later chart the amount of time taken to complete tasks.

Time lines and Local histories

Time lines and local histories are similar. While time lines deals with major historical community events and changes are dated and listed, local histories give a more detailed account of how things have changed. For

instance, histories can be developed for population changes, community health trends and epidemics and education changes.

Study Area

Idanre L.G.A of Ondo State, Nigeria is the study area for this research work. It is located between latitudes $06^0 42'$ and $07^0 42'$ north and $05^0 00$ and $05^0 32'$ east (fig 1) and bounded to the north by Akure and Ifedore Local Government Areas. Owo Local Government Area is the boundary at the East and to the West, by Ondo and Ore-Odigbo Local Government Areas. Edo State is the boundary at the South. The Local Government has its headquarter in Owena town. The land area covers 1832km^2 (Adegeye, 1993). The area has an average temperature of 78-83°F between January and July. Idanre is characterized by forests and rocky hills. As at 2006 population census, the population of the study area is 129,024. The primary activities of the inhabitants of the study area include agricultural production and the common crops grown include cocoa, cassava, cocoyam, sweet potatoes, maize, palm kennel, groundnut among others.

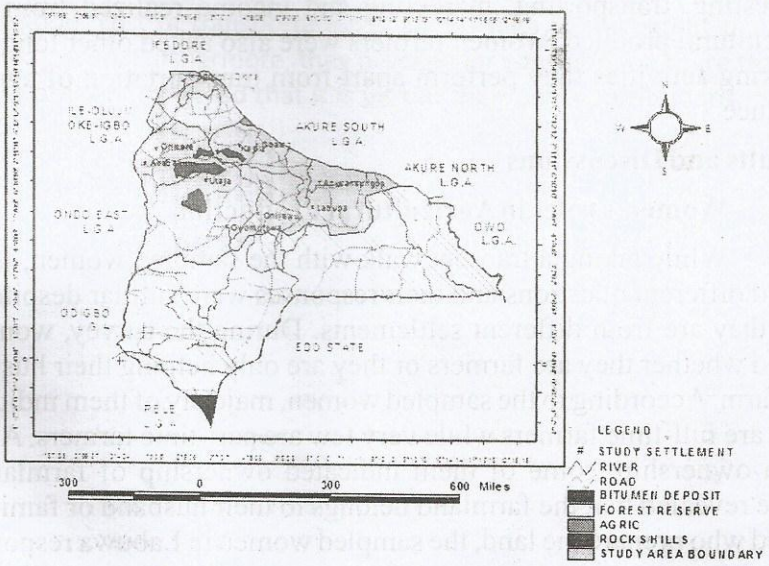

Fig. 1: Map of Idanre LGAs Showing some settlement

Methods of Study

The study employs Participatory Rural Appraisal (PRA) Technique; specifically transect walks to explore the minds of the respondents on burden faced and time spent in transporting agricultural products. Five settlements were randomly chosen for sampling in the study area. These include Utaja, Labuwa, Abababubu, Oniyewu and Anukansugba camp Ala. The study was carried out around evening (4-5pm) during harvest period when women were returning home from the farms with head loaded agricultural produce. The study was carried out for a period of three months and ten women per settlement were sampled to give a total of fifty women on the overall. The researcher and some field assistants engaged in transect walk with the women while returning from the farms. Different questions were then asked these women. Such questions include whether they are farmers, farming status, ownership of farmland, farm distance, preparation of land, making of heaps, planting, types of crop planted, transplanting, application of fertilizer, weeding, harvesting, transporting, marketing and income realized from sales of agricultural produce. Women farmers were also asked other long distance trekking activities they perform apart from transportation of agricultural produce.

Results and Discussions

(i) Women's roles in Agricultural Production

While taking a transect walk with the sampled women, they were asked different questions and their responses were similar despite the fact that they are from different settlements. During the survey, women were asked whether they are farmers or they are only helping their husbands on the farm. According to the sampled women, majority of them indicated that they are full-time farmers while very few are part-time farmers. As regards farm ownership, some of them indicated ownership of farmland while some revealed that the farmland belongs to their husband or family. When asked who prepare the land, the sampled women in Labuwa responded that

most of them were not involved in land preparation that their husbands and at times hired labour prepare the land for cultivation of crops. The same response was obtained from other sampled settlements. Also they responded that they were not involved in making of heaps but very much involved in planting of crops. In fact, all of them signified that they are very much involved in planting of different crops such as maize, guinea corn, cassava, yam, sweet potato, cocoyam, water yam and vegetables among others. Furthermore, they all indicated that they participate in transplanting, application of fertilizers, weeding, harvesting, transporting and marketing of agricultural produce.

According to a sampled woman in Utaja, she indicated that she is a widow with five children to take care of and that nobody is assisting her in taking care of the children, so she has to be deeply involved in agricultural production in order for the whole family to survive. Furthermore, she said she participates in almost all farming activities except land preparation. Sampled women were asked the reasons for head loading the harvested agricultural produce from the farm to various destinations. They indicated that there are no motroable roads to the farms and where there are some they are not in good condition and where the roads are good; cost of transportation is always high to the extent that they cannot break even. Furthermore, they produce for consumption more than for sale. Some of them indicated that it is part of their own contributions to farm activities.



Fig.2: Women and their children head loading agricultural products and firewood from the farm to their home

In Abababubu village, sampled women indicated that they are involved in transportation of agricultural produce because children that could have assisted them attend school and do not return until afternoon. A woman farmer has this to say

"our children attend school and when they come back,

they will be asking for food. If we don't transport these

produce, feeding them will be difficult".

Similarly in Anukansungba camp Ala, all the sampled women farmers responded that they are involved in transportation of agricultural produce either from their own farm or their husband's farm because it is their responsibility to do that as women.

we cannot afford cost of transportation since we are poor
so if we don't do it, who will do it for us?
(A sampled woman farmer in Anukansungba)

Sampled women in Oniyewu village pointed out that transportation of agricultural produce is their hobby and they enjoy doing it. According to them it is part of their economic roles as women and mothers.

"My husband does other farm activities
but my own role as a woman is to transport
the produce home and prepare it for our consumption".

(i) Reasons for transporting agricultural products by head

When sampled rural women farmers were asked the reasons for head loaded transportation of agricultural products. Reasons given by them include inaccessibility as a result lack of roads, bad road conditions, costs of transportation, poverty and subordinate nature of women. Furthermore, lack of women's involvement in decision making on agricultural production was also identified as one of the reasons for women's transportation burden of agricultural products. One important thing to note is that this pattern of movement is by foot and this did not allow for increased production. This is similar to Tunde and Adeniyi (2012) that larger percentage of rural farmers made use of head porterage to transport agricultural produce which has limited the potential level of production because they can only carry certain quantity at a time.

The use of bicycles by women which could have assisted to reduce time and space is not common in the study area because most of them could not afford it. Where bicycles are being used, men are the ones making use of bicycle to and fro the farm. Women on the hand head load their products

to wherever needed.

(ii) Time Spent and Burden of transportation of Agricultural Products by Rural Women

When time taken in transportation of agricultural produce was examined, various responses were obtained from rural women farmers. According to them, this depends on the distance between farm and their various homes. These distances vary from 0.5km to about 2km and so they spent between 2 to 6hours (See Table 1) transporting the harvested products to their various homes since they make between 2 and 3 trips per day which is a great burden. In Oniyewu, a sixty-five year old woman responded:

> "I don't have anybody around to transport
> my agricultural products so I have to do it myself
> because I have to eat, all my children have migrated
> to urban centres for better opportunities".

All the sampled women in Utaja village complained that most of their farms and husband farms are far from their homes and so they had to travel distances to get the farm products home for consumption or for sale. This according to them have negative effects on their health coping with the fact that they still have to trek long distances in search of potable water and firewood to prepare the food. This is in support of Adetunji (2002)'findings that women generally complain of tiredness and general body weakness at rural health centres partly as a result of stress caused by trekking to farm, water points and other rural services.

Table 1: Time taken in Transporting Agricultural Produce to Various Houses

Time Spent	Utaja	Labuwa	Abababubu	Oniyewu	Anikansungba
0-1hr	-	-	-	-	-
1-2hrs	-	1	-	-	-
2hrs-3hrs	2	1	2	-	-
3hrs-4hrs	1	2	2	2	-
4hrs-5hrs	2	4	3	4	2
5hrs-6hrs	5	2	3	4	8
Total	10	10	10	10	10

(Iother Long Distance Economic Activities by Sampled Women

When the sampled women were asked for other economic activities performed that involved trekking long distances apart from transportation of agricultural produce, their responses were similar in all the sampled villages. According to them, they trek long distances in search of firewood and potable water for their domestic consumption. This according to them, they undertake virtually every day. All the sampled villages do not have access to potable water which supposes to be available for all. Over 80% of the sampled women from Oniyewu, Utaja, Anukansungba and Labuwa spend between 2-3hours searching for potable water whereas in Osi, majority of the sampled women spend at least 1hour searching for potable water. It was also gathered that all these women make about 4-5trips to water points per day. They even make more than 5trips and longer distances during dry season. This can be linked with inequality in terms of distribution of infrastructures between the rural and urban areas of Nigeria. The lack of access to good quality water for drinking and domestic uses made a lot of people in the rural areas vulnerable to water borne related diseases such as typhoid, diarrhea, cholera and dysentery. Also, when women trekked distances in search of firewood for domestic use, by the time they get home they will be too tired to even prepare food for the family. This also can be linked with poverty and underdevelopment of the rural areas. For instance, Tunde and Adeniyi (2012) discovered that transport not only have impact on the development of the agricultural production but

also on the socio-economic development of the people in all these communities and rural development as a whole.

Conclusion and Planning Implications

The intractable problem of transportation of agricultural produce by women in rural areas of Ondo State has been discussed in this work. This has also been linked with inequality in the distribution of infrastructure between the rural and the urban areas whereby women are more vulnerable to this impact than men. Hence, the concentration of poverty in the rural areas has a lot of implications on the rural populace especially women. The policy and planning implications of our observation include: As long as there is inequality between men and women in terms of access to resources, women will continue to play the subordinate role of which they are known for. Also, deprivation as a result of inequality in the distribution of infrastructure between rural and urban areas has been affecting rural poor especially women while men migrate to urban areas for better opportunities. This is linked with their head loading of agricultural produce from point of production to various destinations of consumptions. This is also associated with other long distance trekking economic activities such as searching for potable water and firewood.

Based on the foregoing therefore, the following recommendations are made

I Women should be given equal opportunity as men in terms of access to productive resources

ii. Rural women should be empowered with income generating activities in order for them to be able to compete with other women in the urban areas. This will in a way reduce their poverty situation which in turn will reduce their various burden of having to take care of their family.

iii. There is the need for development of rural areas in terms of distribution of infrastructural facilities such as provision of good road network, potable water, and health facilities among others to the

standard of the urban areas.

iv. There should be fair share and justice and the need to re-examine gender roles in such a way that women are relieved of some of the domestic burdens so that they are able to give more time to productive income generating activities.

v. Women should be part of decision making on agricultural production.

vi. Where roads are in bad conditions, it should be improved upon by repairing it.

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