Gender Analysis of Catfish Farmers in Lagos State, Nigeria

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Abstract
This research was undertaken to examine the gender analysis of catfish farmers in selected rural areas of Lagos state. Primary data elicited from a sample size of 120 catfish farmers was employed in the data. Analysis of the data was done using descriptive statistics tools such as frequency counts and simple percentage, while the inferential statistics tools used are Chi – square and Pearson’s product moment correlation. The result revealed that the number of male catfish farmers was higher than that of the female catfish farmers and this implies that women are not been empowered in the country and this tends to reduce the participation of women in catfish production. This study has established that gross margin of the male Catfish farmers (8,082 naira) was higher than that of the female Catfish farmers (6,321 naira) which indicates that the profitability of the male Catfish farmers was higher than that of the female catfish farmers. Hence, women with a lower profitability compared to men will tend to have a lower livelihood support from catfish production in contrast to men who will tend to have a higher livelihood support from catfish farming as a result of their higher profit margin. Based on these findings the following recommendations were made that women be encouraged to participate in catfish production, differences in conditions, needs, access to resources, among others between women and should be considered in manpower training. There should be equitable distribution of resources and access to supportive services for both genders to enhance catfish productivity and Government should encourage the participation of women in catfish production.

Keywords: Gender, Manpower and Catfish farmers

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Background to the Study
Fisheries occupy a unique position in the agricultural sector of the Nigerian economy. The contribution of the fisheries sub-sector to agriculture GDP was estimated as 1.3% in the year 2010, out of the total estimate of 40.9% being contributed by agriculture to GDP. Although fish production is traditionally considered as masculine enterprise, women’s role in fisheries is complementary and crucial (Ovulate, George, and Iowa, 2011). Women play a major role in aquaculture production around the world as labourers and managers of the production process; their roles are very much restricted and often ignored.

Gender describes the socially determined attribute of men and women. It refers to the physical and biological difference between men and women. Gender is a useful socioeconomic variable to analyses roles, responsibilities, opportunities and incentives of people involved in agriculture (Mafimisebi, 2007). Gender differential is the description in character of being male or female as ascribed by culture and society. The term gender does not only connote sex; it is culturally ascribed as a role performed by either of the sexes. (Ogunniyi, Ajao and Adeleke 2012). The issue of gender is a process by which individuals are born into biological categories of female and male. This could become the social categories of women and men through the acquisition of locally defined attributes of femininity and masculinity (Aina, 2002). Also, in the recent years, the topic gender especially women participating in the development has become prominent in the literature, democracy and governance. This is due to the establishment of Women in Agriculture (WIA) as a component of Agricultural Development programme (ADP) (Ogunniyi et al, 2012).

Gender deals with the social relationship between men and women and how these relationships are negotiated in the production of goods and services (Ironkwe, 2011). However, it is important to note that such gender relationship exist among rural fish farmers. Gender influences knowledge, perceptions and needs of farmers as well as their access to agricultural technologies (Rahman, 2005).

The aquaculture sector is often considered a male domain because of the high levels of investments and the adoption of new technology associated with its development. However, women’s role and the extent of their participation in aquaculture value chains, for fish, shrimp, sea web and crab, are extensive – much higher than in capture fisheries. This is especially true in Southeast Asian countries such as Cambodia, Indonesia and Vietnam, where women carry out 42 – 80 percent of all aquaculture activities (Kaing and ouch, 2002; FAO, 2007) while in Nigeria 30-50 percent of all aquaculture activities were carried out by women. Around the Tonle Sap Lake in Cambodia, women’s participation ranges from around 50 percent in fish culture to 85 percent in marketing (ADB, 2007). The promotion of aquaculture as a development strategy for women has been partially based on the perception that it is an extension of women’s domestic tasks (Kakar, 2001), allowing integration with home gardening, house hold chores and childcare. There is ample scope for increasing women's participation in and income from aquaculture through improved extension services, innovations, policies and institutional practices that are directed towards women (Rahman, 2005).
Gender disparities in aquaculture can result in low labor productivity within the sector and inefficient allocation of labor at household and national levels. In many developing Countries, Customary beliefs, norms and laws and/or unfavorable regulatory structures of the state reduce women's access to land and water resources, assets, technology and decision making (FAO, 2006; Porter, 2006), confining them to the lower end of supply chains within the so-called informal sector (Guathakurta, 2008). This implies that women (as in agriculture, forestry and industry) are likely to constitute a larger portion of the poor within the sectors and are often excluded from participating in fish farmer groups and other aspects of aquaculture governance. Even though they use aquatic resources, they are rarely consulted in attempts to manage these resources.

While women bear the costs of gender inequities, these costs are distributed widely and are cause of persistent poverty for all members of the society. Organizing women into groups, along with the access to resources, technologies and services, was successful in improving livelihoods of even ultra-poor households in the Baor (oxbow lake) area of Bangladesh. There is increasing evidence that those countries that have performed well towards achieving gender equity have also reached higher levels of economic growth and/or social wellbeing in general (World economic Forum, 2006; 2007). In overall farm production women's average contribution is estimated to be 55 – 66% of the total labor with percentages much higher in certain religions (Krishna, 2012).

Methodology
The research is a descriptive survey through which views and opinions would be sampled from farmers. The study area is Epe and Ibeju lekki local government area of lagos state primary data was collected through the use of structured interview schedule. Descriptive statistical tools such as frequency counts and simple percentage would be used to report the findings, while inferentials statistical tool of chi square and pearsons product moment correlation would be used to test hypotheses.

Results and Discussion
Hypothesis one:
There is no significant relationship between the benefit of catfish production and male: female ratio of catfish farmers in the study area

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\chi^2$ – cal</th>
<th>$\chi^2$ – tab</th>
<th>SF</th>
<th>DF</th>
<th>Decision</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>152.350</td>
<td>36.415</td>
<td>0.05</td>
<td>24</td>
<td>HO was Significant</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>135.525</td>
<td>28.869</td>
<td>0.05</td>
<td>18</td>
<td>Rejected</td>
<td></td>
</tr>
</tbody>
</table>

The obtained chi – square value was higher than the table value and a level of significance of 0.05, thus, the postulated null hypothesis is rejected in favour of the alternative hypothesis. This means that there is significant relationship between the benefit of catfish production and male: female ratio of catfish farmers in the study area.
Hypothesis two:
There is no significant relationship between constraint encountered and the level of women involvement in catfish production

Table 2: Correlation analysis on the relationship between constraint encountered and the level of women involvement in catfish production

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>r – cal</th>
<th>r-table</th>
<th>df</th>
<th>Remark</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constraint encountered</td>
<td>9</td>
<td>-0.999</td>
<td>0.666</td>
<td>7</td>
<td>Significant</td>
<td>Retain Ha &amp; Reject Ho</td>
</tr>
<tr>
<td>Women involvement</td>
<td>6</td>
<td>-0.161</td>
<td>0.707</td>
<td>6</td>
<td>Significant</td>
<td></td>
</tr>
</tbody>
</table>

The responses on table 2 were subjected to Pearson's Product Moment Correlation (PPMC) to test the hypothesis. The PPMC table value was (constraint encountered = 0.666 and women involvement = 0.707) while the obtained PPMC calculated value was (constraint encountered = -0.999 and women involvement = 0.161). Thus, the obtained PPMC calculated value was lesser than the PPMC table value at degree of freedom (df) of (constraint encountered = 7 and women involvement = 6) and a level of significance of 0.05, thus, the postulated null hypothesis is . This implies that there is significant relationship between constraint encountered and the level of women involvement in catfish production.

Summary and Conclusion
The result derived from the study have been revealing even though some are predictable. It was also evident in the study that there is a significant relationship between the benefit of catfish production and male: female ratio of catfish farmers in the study area. Provision of current and up-to-date information to the rural populace on the various activities such as current market prices of goods, market locations, agricultural practices, etc. is a *sine qua non* for increased productivity and income growth. Generally, information provision increases the resourcefulness of the local users as well as their standard of living. Furthermore, this study revealed that there is significant relationship between constraint encountered and the level of women involvement in catfish production.

The study shows that catfish farming is male dominated and carried out by the youths, the study further revealed that rent on land, stocking density, cost of fingerlings and transportation cost has a positive influence on profitability of catfish farming. While salaries and wages of farm labourers does not significantly influence output of catfish enterprise. The major constraint encountered in catfish production was high cost of feeds and poor water quality and invariably their source of livelihood.

This study has established that gross margin of the male Catfish farmers (8, 082 naira) was higher than that of the female Catfish farmers (6,321 naira) which indicates that the profitability of the male Catfish farmers was higher than that of the female catfish famers. Hence, women with a lower profitability compared to men will tend to have a lower livelihood.
support from catfish production in contrast to men who will tend to have a higher livelihood support from catfish farming as a result of their higher profit margin.

**Recommendations**
Based on these findings the following recommendations were made.

a. Women need to be encouraged to participate in catfish production; this will reduce the high cost incurred for salaries and wages.

b. Cat fish farmers need training on the local production of feed to reduce cost; this could be done by cooperative societies, Non-Governmental Organizations, and local governments.

c. Differences in conditions, needs, access to resources, control of assets, decision-making powers between women and men based on their assigned gender roles are taken into consideration in manpower training, equitable distribution of resources and access to supportive services by both genders towards enhancing their Catfish productivity and increasing their livelihood support.

d. Mobilization of catfish farmers into economic groups, so as to improve their access to resources such as credit and agriculture extension training and women groups or individuals should be given priority.

e. Extension agent should be encouraged to establish contacts with much more catfish women farmer.

f. Provision of basic amenities and necessary inputs that will make catfish farming easy should be provided for farmers in the study area.

**References**

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