Role and Place of Women in Aquaculture a Case Study of Ukerewe District, Tanzania

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Abstract The aquaculture sector is often considered a male domain because of the high levels of investments and nature of work. Women’s role and participation has often been ignored partly due to socio-cultural taboo against them. This paper therefore highlights that women’s play a critical role in the whole chain from pond construction fingerlings sorting, pond stocking, feeding, sex identification and fish harvest. Based on empirical information from two fish farming groups in Ukerewe district Lake Victoria, the paper discusses two issues, first, the potentials women have in aquaculture and secondly, that there challenges they face that need to be addressed.

Keywords Aquaculture; Women; Roles and place; Tanzania

Introduction

Aquaculture in Tanzania started as a small scale or subsistence farming during colonial era in 1949 with experimental work on the culture of tilapia at Korogwe in (Tanga Region) and Malya in (Mwanza Region) during which many ponds were constructed. However, due to lack of proper management and use of incorrect technology coupled with physical problems such as poor infrastructure and drought these ponds ended up being unproductive (Balarin, 1985; Mbilinyi and Shoko 2002).

According to Bwathondi et al., (1993; 1998); Bwathondi and Mahika (1997) and Shoko and Matola (2004) Lake Victoria region has a vast but yet untapped potential. The industry is dominated by small scale farmers practicing both extensive and semi-intensive fish farming. Small fish ponds of an average size of 10 m x 15 m (150 m²) are integrated with other agricultural activities such as gardening and animal and bird production on small pieces of land.

Within the Lake Victoria region women are involved in aquaculture-related activities. Even though employment data in the aquaculture sector is rarely available, women are known to play a critical part; from pre-harvest and harvest, to post-harvest processing. However, the exact contribution both in terms of role, place and of its nature are often not recognized and shows a high degree of discrimination against the women gender. The questions therefore are what are the potentials, and opportunities for, the participation of women in the aquaculture sector? What challenges do women face in their participation? This paper touches on the above issues through presentation of an overview of the roles of women in fish farming.

1 Results

1.1 Role of Women in Fish Farming

Regardless of gender roles differences, women play dominant roles in fish farming. Within the two groups women make up 80% of the labour force. Women participate extensively and actively in all phases of work performed on fish farms. The types of work done by women are not limited to; construction of pond, feeding the fish, cleaning of pond environment and fish harvesting. Other activities the women are engaged include sorting of fingerlings and pond stocking. Despite having other family chores, women in these groups together with male counterparts work for an average of 18 hours a week.

A general description of aquaculture tasks and gender division of labour in the aquaculture is presented in Table 1. This was developed from the information provided by the fish farmers and from observation at the pond sites by the investigator.
Table 1 Major tasks and Gender responsibilities in aquaculture

<table>
<thead>
<tr>
<th>Aquaculture task</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pond selection</td>
<td>Predominantly male</td>
</tr>
<tr>
<td>Predominantly Male</td>
<td>Female assist</td>
</tr>
<tr>
<td>Pond cleaning</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Pond digging</td>
<td>Predominantly Male</td>
</tr>
<tr>
<td>Female assist in carrying mud but occasionally dig too</td>
<td></td>
</tr>
<tr>
<td>Compost collection and mixing</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Water management</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Fingerlings sorting</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Stocking</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Feeding</td>
<td>Male</td>
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<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Harvesting</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td></td>
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<tr>
<td>Marketing</td>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
</tbody>
</table>

Note: Source: Field data

1.2 Potentials of Women in Fish Farming

Within the Lake Victoria basin communities women are often discriminated and mostly relegated to domestic chores. This also holds true for capture fishery where women’s participation is restricted to post-harvest activities (processing and trading).

However, the difficulties women within the two groups, have shown great potential which have made them vital stakeholders in fish farming and survival of the groups. Study revealed showed that besides their regular household duties, 64% of the women in the groups are involved in other activities related to agriculture, fish farming included. These have enabled women’s potentials to be fully evident. First, women are less mobile than men thus they have been able to provide incessant attention required in fish farming (see also Kaliba et al., 1997; Burton et al., 1999), secondly women are accustomed to several daily routines such as cooking, child rearing, farming, livestock and poultry keeping and household gardening work which have enabled them to accommodate fish farming, third, women are mostly left behind when men migrate to urban center in search for jobs or when in a polygamous family these have given responsibilities to women to provide for their families through hard work, fourth, subsistence nature of aquaculture with little income within the basin has distracted many men (see also Wetengere, 2009) and finally women are more likely to adopt fish farming technology due to the economic hardship. There exists therefor, a natural conditions for women to explore potentials needed in fish farming.

1.3 Benefits of Women Contribution

Women contribute significantly to fish farming activities within the lake zone; their contribution is not restricted to gender segregated roles to which they are known to participate but also to masculine activities such as pond digging, grass cutting and fish harvest. Through their involvement women have been able to: Provide an opportunity for self-employment; Improved their socio-economic condition; Increased fish availability; Contribute to the family income and nutrition; Increased/improved their skills in fish farming; Reduced socio-cultural taboos against women involvement in fishery.

1.4 Constraints Women Face in Fish Farming

Socially women within Kerewe community have from ancestral period enjoyed lesser importance than male counterparts. Women major role from childhood is trained to be a housewife and mother (Onyango, 2004). Although women have successfully participated in agricultural activities, their contribution to fish farming faces the following challenges;

(1) Land ownership: it is difficult for women to own land within the community. Land tenure is traditionally communal with males having ownership rights. Lack of land ownership rights for women is a major setback for credit services. Several governments dealing with land reforms have responded with regulations for occupancy, but these have not been fully implemented at the lower level.

(2) Access to credit and savings services: Women have less access than men to formal sources of credit, such as banks or credit unions. They rarely have the collateral required, usually land title. Therefore women rely mostly on family, their savings, or money lenders and informal groupings for financial survival.
(3) Extension and training: women are seldom included in the trainings that male counterparts have attended. Moreover the timing and location of such trainings have not considered women’s gender roles. These trainings are normally conducted away from the villages making it difficult for women to attend.

(4) Illiteracy: women are most affected when it comes to issues of education. Women in these groups have little level of education than their males.

2 Discussions
Capture fisheries and aquaculture have often been regarded male responsibilities (FAO, 2010). However, this is contrary to study findings which have revealed that women alongside men play important roles in fish farming (FAO, 2011). The women are actively involved in all activities that are carried out within the groups. For instance, women are involved in pre-pond preparation, pond digging-stocking-harvesting and marketing. These undertakings by women in fish farming are similar to what they do in crop farming (see also FAO, 2012; Kelkar, 2001; Shelly and Costa, 2002). The increased involvement of women to fish farming within the groups are due to a number of reasons; one; one, they consider capture fishery a herculean task only possible to men, two, most of the women have been left to care for the families in the absence of husbands, three, small-scale fish farming requires less labour than many other livelihood activities, and can be carried out by female and four need to uplift their socio-economic and generate of self-employment.

Within the groups’ women’s role have been shaped by the changing division of labour evolving within the society. The women seem to have social bonds and well defined roles which have not only improved the working of the groups but have glued the group together despite the many challenges faced.

However, the important role played by women in aquaculture they have been to some extent been derailed by the land tenure systems which gives ownership rights to males, inaccessibility to credit and savings services and facilities, low level of literacy and inadequate technical knowledge on pond management. These challenges are not unique to women within this group but experienced world over where women have been involved in fish farming see also Butt et al. (2010). This calls for special attention for more women to be involved in training meetings where they can fully increase their understanding on fish farming as greater benefits can be gained by having more women extension agents. This would help to overcome and eliminate some of the barriers inhibiting many women from taking up fish farming (FAO, 2012). There remains a need therefore to improve women in aquaculture production to involve more women in the extension and training processes where direct communication is necessary. This will lead to realization of their full potential in aquaculture resulting into enhanced productivity.

3 Conclusions
Women play an important role in the fish farming within the two groups. This role encompasses social and economic activities and duties, both within and outside the group. Development of aquaculture within the groups has clearly shown that sustained improvements in productivity depend upon the recognition of the crucial role women play in fish farming. To accelerate development it is vital that development initiatives programs by government develop and implement effective affirmative action for women that promote realization of the potential they possess.

4 Materials and Methods
This paper is based on study carried out in Ukerewe district, Tanzania from 5th to 30th November 2012 to establish the nature and level of women involvement in fish farming. The data were collected during field research using interviews and participant observation. In total 25 formal interviews, including 4 focused group discussions were conducted. The sample included two fish farming groups comprising 27 members of which 14 were women. Information generated was analyzed using content analysis of respondents’. Secondary information was also sought from available published and unpublished literatures

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