International Journal of Research in Agriculture and Forestry
Volume 3, Issue 11, November 2016, PP 6-12
ISSN 2394-5907 (Print) & ISSN 2394-5915 (Online)

Member-Specific Characteristics Affecting Capacity of Farmer organisations in Promoting Fish Farming: Case of Dowa and Mchinji Districts in Malawi

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ABSTRACT

This study examines some selected member-specific characteristics affecting capacity of farmer organizations in promoting fish farming. Five fish farmer organizations which undertook fish farming activities under the auspices of Community Action Research Programme were purposely selected for the study. Data collection comprised face to face interviews and focus group discussions with members of the farmer groups. Key informant interviews with leaders of farmer groups and extension workers were also conducted. Data were analysed using content analysis, critical discourse analysis and descriptive statistics. Results showed that various member-specific factors have an important bearing on performance as well as the success of fish farmer organisations. Some selected member-specific characteristics namely gender, marital status, landholding size and age are shown to have a significant ($p > 0.05$) influence on participation of the farmers in fish farmer organisations. Another study with a larger sample of farmers and farmer organizations should be carried out as a follow-up to this study.

Keywords: Member-specific characteristics, farmer organisations, capacity, performance, fish farming

INTRODUCTION

Members are key for the existence, performance and development of institutions and are also critical for the capacity of the organisations to undertake their operations (Bernard and Spielman, 2008). Stockbridge *et al*. (2003) emphasise that membership is a central feature of organisational behavior and a necessary part of any behavioral situation, whether acting in isolation or as part of a group, in response to expectations of the organisation, or as a result of the influences of the external environment. Where the needs of the individual and the demands of the organisation are incompatible, this can result in frustration and conflict which may affect the capacity as well as performance of the organisations. Voigt (2007) argues that individual members are the owners of the organisation and the people to which management in the institutions is ultimately accountable..

According to Bernard and Spielman (2008), characteristics of members in an organisation also impact on the behaviour of their organisations. The need to understand the characteristics of the individuals in organisations is also stressed by Lobo (2008) who reported that member-specific characteristics affect the capacity and performance of the organisations in achieving intended goals and objectives. On the same notion, Stringfellow *et al.* (1997) arguesthat the capacity of farmer organisations depends on the match of the characteristics of individual members to the activities that are to be collectively conducted. However, despite the reported importance of the characteristics of members in influencing performance and capacity of fish farmer organisations, little is known on how the member-specific characteristics affect the organisations. This knowledge gap needs to be addressed if the farmer organisations are to be successful in promoting fish farming among local communities. It is therefore against this background that this study focused on describing the member specific characteristics affecting capacity of the fish farmer organisations in the study area.

METHODOLOGY

This cross-sectional study was carried out in Mchinji and Dowa districts. The sampling frame comprised five fish farmer organizations which operated under Community Action Research Programme (CARP) Fish Project. The farmer organizations comprised a total of 68 fish farmers. Considering farmers' experiences in fish farming as a result of the previously implemented fish farming projects, it was assumed that members of the fish farmer organizations would be appropriate to provide necessary information for this study. Purposive sampling method was therefore employed to select the five fish farmer organizations and the members of the farmer organizations. Both qualitative and quantitative data were collected in April 2014. The data collection methods comprised focus group discussions (FGDs), key informant interviews and face to face interviews with members of the fish farmer organisations. Data were analysed using content analysis, critical discourse analysis and descriptive statistics.

RESULTS AND DISCUSSION

Gender Participation in Fish Farmer Organisations

During the study, of the 68 members of the farmer organisations, 75% and 25% were male and female fish farmers, respectively. The gender disparity was observed across all the five farmer organisations with the number of male fish farmers being significantly (χ^2=14.408, df = 4, p=0.006) higher than that of the female fish farmers. Table 1 presents an overview of gender participation in fish farming activities across the fish farmer organisations.

Table1. *Gender and marital status of members in the fish farmer organisations (n=68)*

Marital status	**Gender**		**Total**
	Male	Female	
Single	2	1	3(4.4)
Married	43	12	55(80.9)
Divorced	0	3	3(4.4)
Widowed	0	1	1(1.5)
Polygamous	6	0	6(8.8)
Total	**51(75)**	**17(25)**	**68**

χ^2=14.408, df = 4, p = 0.006; Numbers in parentheses indicate percentages

The findings showed higher male fish farmer domination as compared to women participation in all the fish farmer organisations. However, no significant differences were noted in farmer participation across and between the organisations. This implied that in all the fish farmer organisations, the situation was the same in terms of organisational membership with regard to gender where it was observed that membership of men was higher than that of women.

This finding depicts the existent trend in gender participation in fish farming in Malawi (Hara *et al*., 2007; Halfyard *et al*., 2005) where the aquaculture and the capture fisheries sectors are dominated by men. A similar finding is reported in Kenya where Shitote *et al.* (2012) and Ngugi *et al*. (2007) found that aquaculture and fisheries sectors were dominated by male members rather than female members. In addition, Jamu and Brummett (2004) reported that fish farming in sub-Saharan African countries was significantly dominated by the male members of the local communities. These findings show that fish farming activities are largely dominated by the male members as opposed to the female members of the society. This therefore suggests that gender has an influence on participation of the members of local communities in fish farming practices.

Further, focus group discussions with members of the fish farmer organisations revealed that the participation of women in decision making within the fish farmer organisations was very low since their male counterparts appeared to dominate. Results showed that only 10% of the female members were involved in senior and decision making positions. It was also observed that most of the decision making positions allocated to female members within the fish farmer organisations included the secretarial and treasurer positions. These two positions require commitment and faithfulness and hence in most organisations where local communities are involved in collaborative management of their resources, such positions are generally allocated to female members as they are considered more committed in record keeping and also faithful in handling institutional assets such as financial resources than their male counterparts.

Key informant interviews with office bearers of the farmer organisations and the District Fisheries Officers (DFOs) further revealed that the positions of secretary and treasurer call for members of the organisations who have low cases of absenteeism during committee meetings and any other institutional or organisational forums. It was therefore noted that in all fish farmer groups under study, female members were more committed and also showed low rates of absenteeism during their various institutional gatherings as compared to male members. Thus, this was the likely reason for their choice as office bearers in more demanding positions within local communities despite these not being part of the decision making positions. This agrees with Penunia (2011) who reported that in mixed groups, while women may be well represented as members, there are generally few women in leadership positions and increasingly fewer as one moves from local to provincial, to national or to the international levels.

As already highlighted, since their proportion as members of farmer organisations was lower than that of men, the absenteeism of female members during institutional meetings could easily be noted, and hence this was probably the reason for their low rates of absconding organizational forums and meetings. Nevertheless, this is in sharp contrast with Adong *et al*. (2012) and Halfyard *et al*. (2005) who assert that women's roles in agriculture remain largely unrecognised in policy and resource allocation. It is further reported that although the benefits of organised actions such as the fish farmer organisations are not felt by female farmers, women try their best to be visible in the midst of men by significantly contributing towards success of the organisations. Penunia (2011) further reported that in Ghana, while women may comprise 30 to 50% of the members and while they also form up to 80% of the farming work as an occupation, they have a weak presence in the leadership and decision making positions of the farmer organisations .

Further results showed that the major decision making positions such as the chairperson and vice chairperson were mostly allocated to male members in all the fish farmer organisations in the study areas. This was done through voting to elect the office bearers. Key informant interviews with the DFOs further showed that in terms of decision making powers, the members of the farmer organisations had more confidence in male leaders rather than female ones. While this dominance was attributed to the fact that normally in the rural societies of Malawi women tend not to take part significantly in collaborative activities alongside men, fish farming is also generally regarded as a man's activity and hence the men's dominance in leadership and decision making positions within the farmer organisations (Njaya, 2007). Because of the way they are perceived among the local communities, the study showed that women had limited access and control over agricultural development including fish farming operations. In addition, because fish farming is traditionally under the male domain, programmes for enhancing fish farming automatically imply that the men should be running the high echelons of fish farming practices. This finding agrees with Halfyard *et al*. (2005) who reported that women's participation in Malawi's fisheries and aquaculture sector was low both in terms of numbers and positions. This implies that in aquaculture and fisheries institutions, women mostly occupy lower positions and are few in number as compared to men.

During the study, focus group discussions with the members of the farmer organisations further revealed that gender roles in the study areas were defined by cultural norms known as *mwambo* which is a form of ancestral knowledge which outlines what a person's roles, responsibilities and obligations in life will be with the roles passed from men to men and women to fellow women (Hara, 2007). The traditional culture in Malawi in most cases affects the performance of women in the midst of men in most of development and societal activities. This determines the gender roles between men and women. Furthermore, Halfyard *et al*. (2005) emphasise that poverty, traditions, discrimination and systems affect women's status which also negatively affects their membership in fish farming operations. FAO (2005) further asserts that in many developing countries, customary beliefs, norms and laws and/or unfavourable regulatory structures reduce women's access to land and water resources which also reduce their chances to become members of the farmer organisations and are rarely consulted in attempts to manage the fisheries resources. Another drawback for women participation as advanced by Agrawal (2001) is that the aquaculture sector is often considered a male domain because of the high levels of investment and the adoption of new technologies associated with its development. In this regard, gender is one of the factors that can influence the success of the fish farmer organisations since men are more likely to take leadership and decision making roles than women.

Marital Status of Members

Results showed that 80.9% of the respondents were married and only 4.4% were single or had never married while another 4.4% and 1.5% of the members were divorced and widowed, respectively. However, 8.8% of the men are married through polygamy where the husband has two or more wives. In both Dowa and Mchinji districts, people practice matrilineal type of marriage where the husband moves to the wife's village. When a valid matrilineal customary marriage has been contracted, the husband is expected to go and live with his wife at his wife's village. This is called *chikamwini*. *Chikamwini* is a common feature of matrilineal groups in Malawi. Its original intent seems to have been a way of introducing a dependent male labourer into the wife's family.

During focus group discussions, members of the fish farmer groups noted that some men find it a disincentive to undertake fish farming activities as they had a notion that they would lose ownership of the fish ponds in case of divorce or separation. It implies therefore, that *chikamwini* as one of the marriage systems in Malawi acts as a disincentive for some men to engage in fish farming in the two districts. In addition, under the *chikamwini* marriage system, males despite being heads of households do not have total control of land on which they could carry out fish farming activities. This also reduces the likelihood of men under the *chikamwini* marriage system to engage in fish farming activities.

Landholding Size of Members of Fish Farmer Organisations

Land holding size included all land available to the fish farmer. Chi-square test showed significant differences ($p<0.05$) in the number of fish farmers who owned various sizes of land across the farmer organisations in Dowa and Mchinji (Table 4.15). Results further revealed that most (37.9%) of the fish farmers owned less than 2 hectares of land. The mean landholding size per household in the study area was 1.5 hectares. The largest landholding size was 15 hectares per household. Only a few (3.0%) individuals owned these hectares of land (Table 2). The smallest landholding size per household was 0.5 hectare. However, the average amount of land owned by the fish farmers in both Dowa and Mchinji was higher than the national average according to NSO (2008). This agrees with Garrity *et al*. (2010) who assert that Malawi's agricultural production is characterised by low productivity as well as small landholding size. On average, households cultivate 1.2 hectares of land while per capita landholding size for the rural poor households is as low as 0.23 hectare (IFAD, 2011).

Table2. *Landholding size by selected households during the study (n = 68)*

Size of land (ha)	Number of respondents	% of respondents
< 2.0	27*	39.7
2.0-4.0	19*	27.9
5.0-7.0	11*	16.7
8.0-10.0	7	10.3
11.0-13.0	2	6.9
≥14	2	2.9
Total	**68**	**100**

** = Significant at p < 0.05*

In addition, over 40 percent of smallholder farmers in Malawi cultivate less than 0.5 hectare of land (NSO, 2008). This finding agrees with Bryceson (2006) who emphasises that in Malawi, land holdings are small and the majority of smallholder farmers cultivate landholdings that are less than 1 ha. The decrease in land resources and the increase in human population have given way to cultivation of unsuitable and marginal areas.

The study further showed that 90% of the farmers both in Dowa and Mchinji had their fish ponds constructed in swampy sites known as *dambo*. It was noted that the source of water for most (90%) of the ponds was ground water. As a result, most of the ponds were constructed in the *dambo* sites which have higher water table than other sites in order ensure sustainable availability of water in the ponds. It was also observed that within the *dambo* sites, fish farmers cultivated *dimbas* where vegetables and other crops such as maize were grown as winter crops through integrated aquaculture agriculture system. Therefore, landholding size and ownership and *dimba* sizes may have a significant influence on the farmers' decision on whether to become a member of the farmer organisation or not. This assertion agrees with Kapanda *et al*. (2003) who found that land holding size had a positive relationship to adoption of fish farming and hence, indirectly influenced membership of the farmer organisations.

Age of Members of the Fish Farmer Organisations

The respondents` ages ranged from 19 to 71 years with a mean age of 39.5 years. Most of the respondents (37.9%) were between the age range of 41 and 50 years followed by 31-40 years age group (Table 3).

Table3. *Age distribution of fish farmers in farmer organisations (n = 68)*

Age categories	Men	Women	Total number of fish farmers	% of respondents
>21	1	1	2	42.9
21-30	3	1	4	5.9
31-40	13	2	15	22.1
41-50	17	9	26	38.2
51-60	10	3	13	19.1
>60	7	1	8	11.7
Total	**51**	**17**	**68**	**100**

Results indicate that most (80.3%) of the members within the farmer organisations were elderly with ages between 31years and 60 years (Table 4.16). This may be due to the fact that many of those in this age range owned adequate amount of land and hence they have higher likelihood to engage in farming activities including fish farming. Similarly, it was found that the fish farmer organisations were dominated by office bearers whose age range was 41–50 years while the least age group for office bearers ranged between <21 and 30 years old.

These results are indicative that age could be a determining factor for members of the community in the study area to become members of the fish farmer organisations. This implies that older people (>40 years old) were more likely to participate in most of the fisheries management activities such as planning and decision making as compared to younger people (<40 years old) who could opt for other occupations that may provide immediate returns to investment rather than fisheries.

In addition, the perceived long-term investment in fish farming (six months after stocking fingerings) acts as a disincentive for younger people to undertake fish farming activities at the local level as compared to the older members of the community. This time-lap between fish stocking and harvesting is perceived too long for some farmers to bear before they realize any benefit from their investment. In addition, Chirwa *et al*. (2005) reported that older farmers (>40 years old) in most rural communities have larger farms and households and are probably richer and thus have the extra economic and labour capacity to invest in fisheries resources management, hence their higher proportion in the fish farmer organisations as compared to the other age classes of the members.

CONCLUSION

This study has shown that various member-specific factors have an important bearing on performance as well as the success of fish farmer organisations. Some selected member-specific characteristics namely gender, marital status, landholding size and age are shown to have a significant influence on participation of the farmers in fish farmer organisations. Thus, it is in the interest of policy makers, extension workers and other front-line staff members as well as the members of local communities to consider these characteristics if the local farmer organisations are to be successful and robust to promote fish farming activities at the local level. This survey should be considered as a preliminary study while a follow-up study should be conducted with a larger sample in more areas where fish farming activities are being carried out at the local level in order to provide more empirical evidence on how member-specific characteristics influence fish farmer organisations.

ACKNOWLEDGEMENTS

Special thanks should go to the Regional University Forum for Capacity Building in Agriculture (RUFORUM) for funding this work as part of PhD study programme (for first author) through Community Action Research Programme Fish Project. Also, many thanks should go to the Technical Coordinator, Prof Emmanuel Kaunda and staff of the NEPAD Regional Fish Node at Lilongwe University of Agriculture and Natural Resources for facilitating successful implementation of the study through provision of technical assistance and invaluable advice.

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