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Income generation promote the participation of youth and women in beekeeping activities in Western Tanzania

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Abstract

Participation of rural women and youth in beekeeping activities provides a unique opportunity to improve rural livelihood and hence poverty reduction. This paper explores the extent of accessibility of women and youth in beekeeping industry in Tanzania. Data were collected from Kigoma Region in Western Tanzania through Participatory questionnaire survey, Focus Group Discussions and Key Informant Interviews. Results indicate that women have explored their own niche in beekeeping industry by actively engaging in post harvesting of bee products. Income generation was the major reason for participating in beekeeping activities and beekeeping was ranked number one at the same level as agriculture as major sources of income. Post harvesting beekeeping, however, needs liquid capital investment which, limit women and youth to participate fully in the business. Cultural practices were also mentioned as other main hindrance for adult women and youth to participate in beekeeping activities. Nonetheless, presence of beekeeping groups and associations, community banks, forest reserves and beekeeping awareness campaigns in the areas provided opportunities for women and youth to participate in beekeeping. We recommend for strengthening and empowerment of beekeeping groups, associations and cooperatives with particular emphasis to women and youth to access credits facilities, donor supports and training. In order to increase income accrued from beekeeping activities, promoting and support of training on processing of secondary bee products to women and youth beekeepers are important. Stakeholder's involvement in promoting and support beekeeping awareness campaigns is crucial to enhance the contribution of the sector for livelihood improvement and environmental conservation.

Keywords: Women, youth, beekeeping, livelihood

1. Introduction

Beekeeping plays a valuable part in improving rural livelihoods especially to forest dependent people in many developing countries [3, 2]. It is an important income-generating activity, which has a great potential for development [5]. Beekeeping can be done by all ages and gender and requires relatively low capital and does not require daily attention [2]. Participation of women and youth in beekeeping activities provides unique opportunities for the women and youth to contribute to their livelihood [5]. Beekeeping contributes up to 33% of household income in the miombo woodlands of Tanzania [4] and it employs about 2 million rural people [3]. Tanzania comprises a total of 44.9 million people, out of which 51% (23.1 million people) are women and 34.7% (16.0 million people) are youth aged between 15 – 35 years old who face enormous challenges of unemployment [6, 8]. In realizing the existing unemployment gap, the Government of Tanzania in 2007, through the Ministry of Natural Resources and Tourism, in collaboration with local government in Kigoma Region initiated a programme to support beekeeping development with emphasis on women and youth to participation in beekeeping industry which was funded by the Belgium Development Cooperation (BTC) [1]. This project to a large extent facilitated the formation of Beekeeping Groups and Beekeeping Cooperatives, where 162 beekeeping groups and three beekeeping cooperatives have so far been formed. This paper therefore explores the accessibility of women and youth in beekeeping industry within the intervention project area. Specifically, the paper assesses involvement of women and youth in beekeeping activities in the area, identifying accessibility challenges, evaluate the socio-economic contribution of beekeeping to women and youth welfare and identify opportunities for them to engage in beekeeping activities.

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2. Study area and Methods

The study was conducted from July to August 2014 in Kasulu, Kibondo and Uvinza Districts in Kigoma Region in western Tanzania (Figure 1). Primary data collection was obtained through questionnaire survey, Focus Group Discussions (FDGs) and Key Informant Interviews (KIIs). The aspects covered in these tools focused on women and youth involvement in beekeeping activities, constraints hindering women and youth participation in beekeeping, socio-economic contribution of beekeeping to women and

youth welfare, and opportunities for women and youth engagement in beekeeping activities. A total of 110 beekeepers were interviewed during questionnaire survey. Data were analyzed qualitatively and quantitatively. Descriptive statistics were used to analyze the proportional of women and youth in beekeeping industry. Non-parametric statistics were employed to differentiate genders of beekeepers in the study areas as well as the contribution of various production sectors in relation to beekeeping.

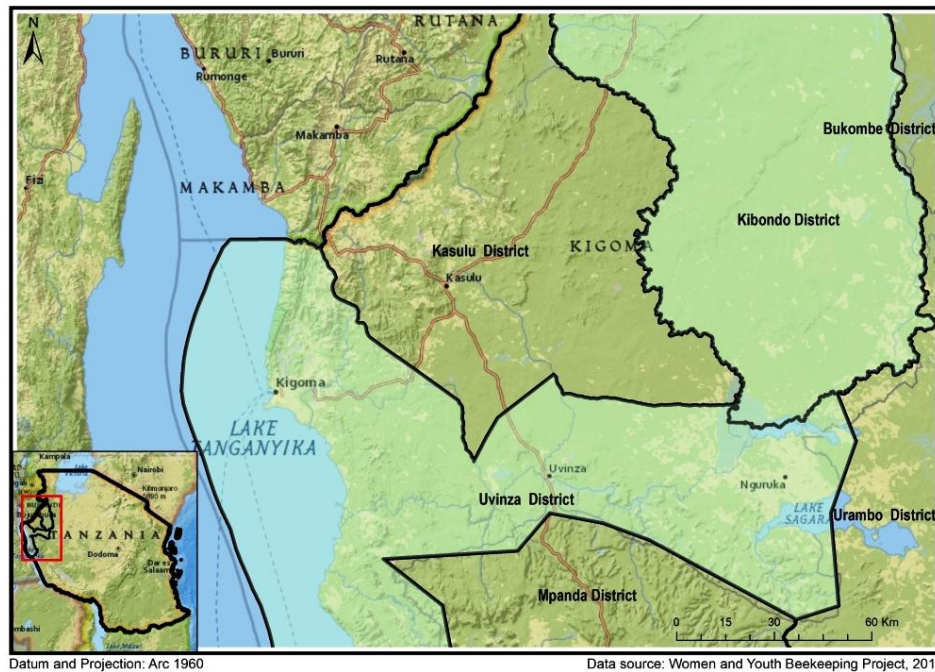


Fig 1: Map of study area.

3. Results and Discussion

3.1 Women and youth involvement in beekeeping industry

The majority of the respondents (81.8%, N= 110) were in the economically active age group between 15- 55 years old, and the rest were those within ≥ 56 age groups. This group is economically productive people or active working group in the local communities. Participation of youth in beekeeping was 20.9% (including 12.7% boys and 8.2% girls). Further, results indicated that gender of interviewed beekeepers differed significantly among the respondents in surveyed villages (Chi-square: $\chi^2 = 73.4$ df = 3, P < 0.000). Women constituted 30% of respondents which reveals dominance of men in beekeeping activities in these districts (Table 1). There was no incidence found in the study area where women or youth were practicing beekeeping alone without parallel involvement of men. Research findings showed that out of women total, 30.5% of them were involved in all beekeeping activities from hive making, hive sitting, harvesting, processing and selling of bee products while others do at different stages from hive making (straw hives) to selling of honey (Table 2). Also, 30.5% of women participate only in selling of bee products while 28.4% of them participate in both processing and selling of the bee products. The results indicated that majority of women are involved in processing and marketing of bee products this might be due to the fact these activities are mainly done at homestead. Similar results reported in the same area with another author [7] and elsewhere in Tanzania [5]. In case of boys, 59% of them participate in all beekeeping activities and only 41% of them do participate only in honey production (Table 3). Girls were

only reported to participate in selling (53%), processing and selling (47%) of bee products (Table 3). This observation may imply that beekeeping project intervention has made possible for more women participation in beekeeping though still there is a need for a special attention to youth. Participation of youth in all stages of beekeeping will enhance possibility of their livelihood improvement.

Table 1: Age-sex distribution of respondents

Age (years old)	Females	Males	Total
15 – 35 (N)	9	14	23
%	8.2	12.7	20.9
36 – 55 (N)	23	44	67
%	20.9	40	60.9
≥ 56 (N)	1	19	20
%	0.8	17.3	18.2
Total (N)	33	77	110
%	30	70	100

Table 2: Response of interviewees in women functions in beekeeping practices

Beekeeping activities	Observed (N)	Proportion (%)
All beekeeping activities	29	30.5
Production	6	6.3
Production and processing	4	4.2
Processing and selling	27	28.4
Selling of bee products	29	30.5
Hire labour for beekeeping activities	29	30.5

Table 3: Response of interviewees in young functions in beekeeping practices

Beekeeping activities	Young boys		Young girls	
	Observed (N)	Proportion (%)	Observed (N)	Proportion (%)
All beekeeping activities	17	59		
Production	12	41		
Processing and selling			7	47
Selling bee products			8	53

3.2 Challenges hindering women and youth participation in beekeeping activities

Lack of capital in investment in beekeeping seems to be the main hindrance factor for women and youth in participation (21%, N= 110) in beekeeping activities followed by lack of beekeeping knowledge or skills (18%, N= 110) and family commitments (12%, N= 110). The other limiting factors were long distance from apiary, culture and taboos, pests and predators, lack of unreliable market of bee products, wildfire, illegal harvesting of forest products and climate change. These findings agreed with observation made by other authors [1, 7] in the same area or elsewhere in Tanzania [5]. Women and youth beekeepers can apply more than one strategy to encounter these challenges for sustainability of the beekeeping activities. These strategies include formation of beekeeping groups to make it easier to access support from development partners, hire labour for different beekeeping practices in the forest, and attending beekeeping seminars and training on appropriate beekeeping. Awareness creation on importance of beekeeping activities; beekeeping contribution towards household economy and biodiversity conservation among group members was also applied.

3.3 Impact of beekeeping activities to household economy

Below results were not segregated to fit the preceding headline. Data provided are either general prices or earnings in the household/group or association and has nothing to do with women or youth. The impact to women is nowhere shown or reflected. Results indicated that price of stinging bee honey in surveyed villages was between TZS 1,704 (US\$ 1.05) and TZS 3,425 (US\$ 2.1) per kg, and TZS 10,500 (US\$ 6.5) and TZS 12,500 (US\$ 7.7) per kg for stingless bee honey. Beeswax fetched between TZS 3,500 (US\$ 2.2) and TZS 5,500 (US\$ 3.4 per kg). The price differences were based on quality of the bee products, production season (major and minor harvesting seasons). When respondents were asked on income generated from beekeeping activities during the last season, they indicated earning between TZS 35,000 (US\$ 21.5) to TZS 5,300,000 (US\$ 3,261.5) per household depending on number of hives owned. Income generated from beekeeping can be used as capital for beekeeping investment and other income generating activities including small business, tailoring, agriculture, and livestock keeping. Such observations agree with other findings in the same place and elsewhere in Tanzania [7, 5]. Agriculture and beekeeping had the same weight of contribution (Scheffe, P=0.27). Results indicated that beekeeping had significant contribution to the household economy in the studied rural communities. Physical assets accrued from or had contribution from beekeeping activities that were recorded in the surveyed villages included; houses, bicycles, sewing machines, motor bicycles and radios. In case of human assets, income generated from beekeeping enabled respondents to pay school fees for their children and other family members at different levels from primary school to universities. Also, respondents use accrued income to pay for medical services for their families. Social benefits included food, paying dowry (bridal

price), clothes, support family members and establishment of network and friendship. Results showed that among the natural resources benefited from beekeeping activities included; purchase of land for settlement and/or agriculture, forest resources for apiary establishment, biodiversity conservation and availability clean water. These benefits from beekeeping activities indicated how this activity has big role to play to the local community around protected areas.

3.4 Opportunities for women and youth engagement in beekeeping industry

A total of forty (40) beekeeping groups, four (4) beekeeping associations and one SACCOS group were recorded in the survey villages. Majority of beekeepers (84.5%, N= 110) were members of beekeeping groups and associations recorded in surveyed area. Only few respondents (14.5%, N = 110) reported to have participated in awareness campaigns. Also, 41.8% had attended beekeeping training between 2004 to 2014 supported by BTC, Tanzania Forestry Services (TFS), Local government (Uvinza District Council and Kigoma Region Authority), Small Industries Development Organization (SIDO) and Jane Goodall Institute (JGI).

4. Conclusion

General, participation of youth in beekeeping is still low compared to women. Income generation was the major reasons for doing beekeeping activities in all surveyed areas. Beekeeping ranked number one the same as agriculture regarding major source of income. Lack of capital to invest in beekeeping was the main hindrance for women and youth to participate in beekeeping activities. Presence of beekeeping groups, beekeeping associations, community banks and forest reserves are available opportunities for women and youth to involve in beekeeping activities. Nonetheless, few respondents had participated in beekeeping awareness campaigns.

5. Recommendations

We do recommend for promotion of joint efforts in production and marketing of bee products through strengthening and empowerment of beekeeping groups, associations, cooperatives with more emphasis to women and youth that can make beekeepers to easily access to credits facilities, donor supports and training. In order to increase income accrued from beekeeping industry, promoting and support of training on processing of secondary bee products (value addition of bee products) such as soap, candles, creams and wine to women and youth beekeepers. Likewise, stakeholders in beekeeping should promote and support beekeeping awareness campaigns for improvement of contributions of beekeeping sector to the livelihood and environmental conservation. It is also imperative to facilitate women and youth beekeepers to access protected forest areas which are close to their villages for establishment of apiaries and motivate these groups to keeping stingless bee in their homesteads.

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