Full Length Research Paper

Gender role in commercial vegetable farming (CVF) in Chitwan District, Nepal (A case study of Gunjanagar and Sharadanagar VDCs)

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A study was conducted to assess the gender role in commercial farming and household income in Chitwan, Nepal in 2012. The survey research design was used whereas purposive and simple random sampling was followed to select the respondents. The study was conducted in Gunjanagar and Sharadanagar Village Development Committees (VDCs) of the Chitwan district. A total of 112 respondents were selected from commercial vegetable growing farmers, 61 respondents from Gunjanagar and 51 respondents from Sharadanagar VDC. A pre-tested and standard interview schedule was employed for household survey to collect primary information. And various documents of the governmental and non-governmental organizations were used for secondary information. The findings of the study revealed that vegetable farming has major contribution in household income. It was explored that joint decision making done in crop selection and marketing activities rather than just one gender. However, technology related and direct money related activities were decided more by male. Most of the activities related to commercial vegetable farming are performed jointly. However, laborious activities like nursery bed preparation, field preparation were done by male and tedious works like manure mixing; intercultural operations were done by female. Various household resources like land, capital, were controlled by male members than female members of the household. Moreover, female farmers have lesser access to agriculture extension services than their male counterparts. The findings also revealed that commercial vegetable farming was not new enterprise for them and most of the farmers were highly motivated by their neighbors, they have started growing vegetable commercially as soon as the highway and feeder roots were made. And the findings also revealed that vegetable production have major share in household income in comparison to other components like livestock, cereal crops and fruits. Almost all farmers were found satisfied with their income and have very positive attitude towards commercial vegetable farming, due to good income, majority of youths were engaged in this commercial vegetable farming and all farmers are satisfied with this job. Thus, with commercial vegetable farming, gender role has been changing overtime and it has created a good employment opportunities for youths. So, with proper management of the roles of gender, supply of inputs and trainings enhance the commercial vegetable farming in Chitwan district.

Key words: Gender, commercial vegetable farming.

INTRODUCTION

This study is about the gender role in Commercial Vegetable Farming (CVF) in Chitwan district. Nepal is an agricultural country and vegetable is dominating agriculture. There are various issues related with the

gender and agriculture but there was no any sign of improvement and this study aims to show the gender role in agriculture.

Gender issues in agricultural development have become a common area of concern at global, regional and national levels (Bajracharya, 1994). In addition, women’s knowledge and skill in relation to agriculture have not been acknowledged in the past. Women in rural
areas have traditionally fewer rights and fewer income opportunities than men, often because of patriarchal and conservative thinking, according to which the man is perceived as the main productive working force (Schussler, 2002).

In an ideal Nepalese farm, man generates income and his wife involves in domestic activities (Bhattarai, 2002). Traditionally, men are responsible to earn either through farming or through off farm employment while women are responsible for child bearing/rearing, household chores and tending animals (Bhattarai, 2002). Increased male migration due to rural poverty and better income opportunities in the urban and semi urban areas have resulted in increased work burden for women. In addition to household chores, women have to perform almost all agricultural tasks except ploughing the fields. They contribute sixty% of the agricultural labor force. Except for ploughing and transporting the final produce, which are almost exclusively male tasks, women play a predominant role in most other agricultural activities (Venkateswaran, 1995).

Since, the implementation of first five year plan 1956, agriculture has remained one of the top priorities in Nepal’s developmental plan periods (MoF, 2010). Despite these efforts, the agricultural production has not increased significantly. And the commercialization in agriculture is rare in the country so. To promote its respect to the people agriculture should be commercialized and the vegetable plays the important role in agriculture commercialization.

Nearly 85% of people live in rural areas (Bhattarai, 2002). In such rural areas, agriculture is the main source of livelihood, and off farm employment opportunities are very limited (Bhattarai, 2002). Thus, agricultural and rural development goes simultaneously. However, equitable, effective and sustainable rural and agricultural development can be pursued only with recognition of tremendous contribution of rural women to food and agricultural production and their crucial role in determining and guaranteeing food security and wellbeing of the entire household. Simply, we can say that most of the development programs do not address the gender inequality which is the major source of poverty and the unequal development of the country.

In the 1991 Census, the definition of economic activity took into account only wage labor and unpaid family labor (IIDS, 2003). It ignored such activities as fetching water, firewood collection, food gathering and processing. These categories are taken to be economically inactive. Nepal Labor Force Survey of 1998/99 took into account these activities as economic activities. By this new categorization 82% of women has been classified as economically active and 56% of the currently employed women (15 year and above) are engaged in agriculture (IIDS, 2003). Thus, compared to other sectors, the agricultural sector employs the largest number of women. Commercialization of vegetable crops in Nepal started 1970 onwards only, particularly after the development of different highways, feeder roads, irrigation facilities, market centers, etc (Shrestha et al., 1984). Women continue to have fewer rights, lower education and health status, less income, and less access to resources and decision-making (Subedi, 2004). Equality between women and men or gender equality is very important in promoting the equal participation of women and men in decisions; supporting women and girls so that they can fully exercise their rights; and reducing the gap between women’s and men’s access to and control of resources and the benefits of development. Nevertheless, women’s critical roles in food production, income generation, and management of natural resources, community organization, and domestic responsibilities are essential for sustainable development.

In addition, women still carry out their work without much help from agricultural support mechanisms such as extension agencies, input suppliers and credit institutions. Women farmers receive less than 5% of extension services worldwide (LEISA, 2002). The priorities of the woman farmer are rarely reflected in agricultural research or national policies, and when they are, this is often not translated into practice in agricultural development planning. Women, as producers, still remain largely invisible and unsupported. Mainstream investments and development interventions tend to focus elsewhere – and as a result, they are often ineffective. Men eagerly speak of their cash crops and commercialized agriculture, whereas women farmers speak about the food crops they grow, and value crop diversity.

Nepalese society is particularly patriarchal i.e. male dominated society. Women are major actors in agriculture but their participation is confined to fieldwork and reproductive activities, while men control over decision making and productive activities including marketing (Bhattarai, 2002). In the context of Gender, Nepal was ranked 115 out of 130 countries which indicate that status of women in relation to men is one of lowest in the world (Shrestha A. D., 1999).

Female household members traditionally own little or no land especially recorded (Wily et al., 2010). The female farmers are not recognized as farmers, but they are referred to as farmer’s wife, sister, daughter, or daughter in law, etc.; thus female farmers receive second hand information (if any), despite the fact that they contribute a great deal to agriculture (Kumar, 2000). Male migration is also favored by gender discrimination in the wage labor market, which favors men over women in terms of job opportunities, and pays them higher wages even for the same work (Song and Jiggins, 2002). Female farmers play a significant and crucial role in agricultural development and allied fields including in the main crop production, livestock production, horticulture, post-harvest operations, agro/social forestry, fisheries, etc (Tripathi et al., 2000).
Vegetable farming is labor intensive, consumes more labor than any other agricultural practices. In addition to their household chores, women work 10.8 h a day as compared to 7.5 h by men. New activities and enterprises, such as vegetable farming, horticulture, sericulture, and processing of farm and forest produce, have increased household incomes, but women's workloads have often increased (ICIMOD, 1999).

There were various studies have been made on the commercialization of vegetables but fails to consider women's participation in the agriculture despite that the female members of the family contribute the most in agriculture. And most importantly Chitwan being an important district for vegetable production and turning to commercialization, this study has very importance for farmers and the organizations working in the field of commercialization.

CVF is one of the important sectors contributing to the growth of Nepal's national income. Thus, the government of Nepal has emphasized the commercial production of vegetables in various potential pockets along the road corridors. Nevertheless, the country is still heavily dependent on imports of vegetables from India. It is reported that two-thirds of the vegetables consumed in Nepal is dependent on imports. One of the six moves of the Agriculture Perspective Plan's strategy is the participation of women. However, gender inequality remains as one of the major issues as a consequence of the mainstream development process. To achieve an equitable and sustainable progress, women's status must be improved, their rights must be respected, and their contributions must be recognized (Subedi, 2004).

Involvement of women in agricultural decision making like planting, fertilizers and seed buying, sowing and harvesting of the crops, etc. is vital for the development. Agricultural productivity cannot be substantially increased, nor can rural poverty be alleviated, unless women's access to key productive resources and services is substantially improve (Kumar, 2000). It is assumed that if women farmers are provided with more information, modern agricultural practices and technical know-how as a target group along with male farmers, agricultural production will increase (Shrestha et al., 1984).

There is only limited research in the gender related work in commercial vegetable farming. It may be due to two major factors. The first factor is the invisibility of farm women's work. The second factor is the gendered division of labor on farms. So far, only a limited research has been carried out on gender role in CVF. It is likely due to the lack of knowledge and skills in gender analysis and planning in the context of CVF, the development projects simply reinforce the existing gender relation without giving much thought to the impacts to the impacts produced as the result of commercialization. Therefore, realizing mainstreaming a gender concern as imperative in order to address the existing uneven and unbalanced participation of men and women in the national development process, the study has probed into the issues from gender perspectives.

Thus, the objectives of this study were to analyze the socio-demographic characteristics of commercial vegetable farmers, contribution of Commercial Vegetable Farming in household income, to explore gender role in Commercial Vegetable Farming, to assess gender involvement in the vegetable farming, to explore the extent of gender access to agricultural information, and to understand farmers' attitude and satisfaction on Commercial Vegetable Farming.

The study will provide an improved understanding of the consequences of current patterns of women's roles, access, control and decision-making on sustainable agricultural development in rural community.

**METHODODOGY**

Survey research design was used to conduct the research study. The research was conducted in Gunjanagar and Sharadanagar VDCs of the Chitwan District, Nepal which was purposively selected area for the study because of the hub for the commercialization of vegetables. Among 4460 Households (HHs) in Gunjanagar (2477HHs) and Sharadanagar (1983 HHs) about 1100 commercial vegetable farmers of two VDCs were the total population. A total of 112 farmers, 61 from Gunjanagar VDC and 51 from Sharadanagar were selected by using simple random sampling for the study. This sample comprised about 10% of the population. The primary primary data was collected through household survey with the help of structured interview schedule. Likert scale and attitude scale were used to measure the knowledge, agreement and level of satisfaction of the respondents regarding commercial vegetable farming. These data and information were supplemented and verified through key informants interview and focused group discussion. Secondary data was collected through publications of District Development Committee (DDC), District Agriculture Development Office (DADO), and local Non-Governmental Organization (NGOs). Both the published and unpublished official records were taken from DADO, Chitwan. All the questions filled during the field work were thoroughly checked; codes were designed and units were standardized wherever necessary before entering the data into the computer. All the data were entered into computer using Microsoft Excel and SPSS program. Different descriptive and inferential statistics were used for the analysis. Chi-square tests were performed wherever necessary to test the association between the various related variables.
Table 1. Frequency distribution of socio-economic characteristics of the respondents.

<table>
<thead>
<tr>
<th>Social categories</th>
<th>VDCs</th>
<th>Total (112)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gunjanagar (61)</td>
<td>Sharadanagar (51)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>42 (37.5)</td>
<td>32 (28.6)</td>
</tr>
<tr>
<td>Female</td>
<td>19 (17.0)</td>
<td>19 (17.0)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brahmin/Chhetri</td>
<td>47 (42.0)</td>
<td>36 (32.1)</td>
</tr>
<tr>
<td>Janajati</td>
<td>9 (8.0)</td>
<td>14 (12.5)</td>
</tr>
<tr>
<td>Dalit</td>
<td>5 (4.5)</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youths (18-35 years)</td>
<td>38 (33.9)</td>
<td>34 (30.4)</td>
</tr>
<tr>
<td>Adults (above 35 years)</td>
<td>23 (20.5)</td>
<td>17 (15.2)</td>
</tr>
<tr>
<td><strong>Family size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;5 (small)</td>
<td>17 (15.2)</td>
<td>8 (7.1)</td>
</tr>
<tr>
<td>5-7 (medium)</td>
<td>39 (34.8)</td>
<td>35 (31.3)</td>
</tr>
<tr>
<td>&gt;7 (large)</td>
<td>5 (4.5)</td>
<td>8 (7.1)</td>
</tr>
<tr>
<td><strong>Household heads</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male headed</td>
<td>54 (48.2)</td>
<td>50 (44.6)</td>
</tr>
<tr>
<td>Female headed</td>
<td>7 (6.3)</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td><strong>Family structure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint</td>
<td>37 (33.1)</td>
<td>26 (23.2)</td>
</tr>
<tr>
<td>Nuclear</td>
<td>24 (21.4)</td>
<td>25 (22.3)</td>
</tr>
<tr>
<td><strong>Educational level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>14 (12.5)</td>
<td>6 (5.4)</td>
</tr>
<tr>
<td>Primary</td>
<td>26 (23.2)</td>
<td>41 (36.6)</td>
</tr>
<tr>
<td>Secondary</td>
<td>12 (10.7)</td>
<td>4 (3.6)</td>
</tr>
<tr>
<td>Above secondary</td>
<td>9 (8.0)</td>
<td>0 (0.0)</td>
</tr>
<tr>
<td>( \chi^2 ) at 3 df = 76.643 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Respondent’s occupation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture only</td>
<td>31 (27.7)</td>
<td>22 (19.6)</td>
</tr>
<tr>
<td>Agriculture and service</td>
<td>17 (15.2)</td>
<td>16 (14.3)</td>
</tr>
<tr>
<td>Agriculture and business</td>
<td>12 (10.7)</td>
<td>10 (8.9)</td>
</tr>
<tr>
<td>Agriculture and foreign employment</td>
<td>1 (0.9)</td>
<td>3 (2.7)</td>
</tr>
<tr>
<td><strong>Farm size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small (&lt;0.5ha)</td>
<td>28 (25.0)</td>
<td>33 (29.5)</td>
</tr>
<tr>
<td>Medium (0.5 to 1.0 ha)</td>
<td>30 (26.8)</td>
<td>15 (13.4)</td>
</tr>
<tr>
<td>Large (&gt;1.0ha)</td>
<td>3 (2.7)</td>
<td>3 (2.7)</td>
</tr>
<tr>
<td>Average farm size</td>
<td>0.51 ha</td>
<td></td>
</tr>
<tr>
<td><strong>Household income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (&lt;NRs. 17000)</td>
<td>4 (3.6)</td>
<td>3 (2.7)</td>
</tr>
<tr>
<td>Medium (NRs. 17001-140000)</td>
<td>52 (46.4)</td>
<td>40 (35.7)</td>
</tr>
<tr>
<td>High (&gt;NRs. 140000)</td>
<td>5 (4.5)</td>
<td>8 (7.1)</td>
</tr>
<tr>
<td>Average income</td>
<td>NRs.80224.85, maximum= NRs.296,891.0, minimum= NRs.12,366.0</td>
<td></td>
</tr>
</tbody>
</table>

Figures in parentheses indicate the% age


**DATA ANALYSIS AND INTERPRETATION**

**Socio-demographic characteristics**

Age, ethnicity, gender, family size, household head, family structure, education, occupation, farm size of the respondents and the household income of the respondents were measured and categorized. The frequency distributions of the socio-demographic characteristics of the respondents are presented in Table 1. About 66% of the respondents were male and 74% were Brahmin/Chhetri followed by Janajati having about 21%. About 65% of the respondents are youth (18-35 years) and the 66% respondents have medium size of family (5-7 members). Most of the families (92.9%) were headed by male members. Whereas the family structure...
found was more or less same for Joint (56.3%) and nuclear (43.7%). Most of the respondents had pursued (59.8%) primary level of education followed by Illiterate (17.9%) and secondary level of education (14.3). Most of the respondents (47.3%) are engaged in agriculture only whereas 29.5% were engaged in agriculture as well as service and 19.6% were engaged in agriculture and business. From the study the average land holding size was found 0.51 ha. The majority of the respondents (54.5%) had small land holding size (less than 0.5 ha) followed by 40.2% of the respondents holding medium land holding size (0.5 - 1.0ha). Research revealed that majority of the respondents (82.1%) have income between NRs. 17001 - 140000 followed by high income (>NRs. 140000), and low income i.e. lesser than just NRs. 17000. Respondents were earning with vegetables which is the reason that most of the respondents have income more than NRs 17000. Because of the adverse climatic effect and inputs unavailability few respondents have income below than NRs. 17000.

### Contribution of vegetable farming to household income

The overall income analysis revealed that vegetable has more than half (55.6% ) contribution to the total household income. This study showed that contribution of vegetable increases with raise in total household income category.

The findings indicated that vegetable contributed about 17%, 53% and 70% to total household income for low, medium and high income category respectively. Income from the vegetable to total household economy was higher due to the reason that farmers raise vegetable year round both seasonal and off-season farming. In addition, vegetable price was also high nowadays.

### Experience of respondents on CVF

Experience of CVF of the respondents were measured and categorized into four categories. Study showed that 14.3% farmers have started growing vegetable commercially since more than 20 years. Those farmers were self-motivated and innovative farmers. Majority of the farmers (45.5%) have experience of 10 - 20 years in CVF followed by 32.1% farmers who have 5 - 10 years of experience. Most of the respondents were highly experienced and involved in Commercial vegetable farming which lowers the population of the respondents having fewer years of experience. And the respondents having below 5 years of experience were found low. Study showed how the respondents get start CVF which revealed that almost all respondents (97.3%) had started commercial vegetable farming before training while only few (2.7%) got training after they started vegetable farming. Most of the farmers started growing vegetable crops commercially after their innovative neighbors.

### Motivator for CVF

Motivation factors for CVF of the respondents were measured and categorized into three factors. Most of the respondents (75%) were influenced by their neighbors; with the income from vegetable farming and other aspects of the commercial farming and 17% of the people were self-motivated and only 8% people were motivated by extension workers. Self-motivated respondents may be the innovators and they may include the farmers practicing CVF since more than 20 years. This study also showed upsetting response that extension workers contributed least to motivate farmers for CVF. This means there was either insufficient extension worker or they were not active enough in the research area.

### Gender role in decision making

Table 2 revealed that decision making regarding different activities in CVF found to be dominated by either male or jointly by both gender. In seeds purchasing, fertilizers and insecticide purchasing, loan withdrawal and fertilizer and insecticide application, male have more decisive power however crop selection and vegetable marketing activities have joint contribution. This showed that female members have less decisive power or they are discriminated in decision making in farming activities. In contrast, in Acharya & Bennett (1981) study, 42% of

<table>
<thead>
<tr>
<th>Decision making</th>
<th>Male</th>
<th>Female</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop selection</td>
<td>41.1</td>
<td>16.1</td>
<td>42.9</td>
</tr>
<tr>
<td>Seed purchasing</td>
<td>50.9</td>
<td>10.7</td>
<td>38.4</td>
</tr>
<tr>
<td>Fertilizer and insecticide purchase</td>
<td>51.8</td>
<td>11.6</td>
<td>36.6</td>
</tr>
<tr>
<td>Loan withdrawal</td>
<td>50.9</td>
<td>6.2</td>
<td>42.9</td>
</tr>
<tr>
<td>Fertilizer and insecticide application</td>
<td>57.1</td>
<td>8.9</td>
<td>33.9</td>
</tr>
<tr>
<td>Vegetable marketing</td>
<td>32.1</td>
<td>21.4</td>
<td>46.4</td>
</tr>
</tbody>
</table>

decisions are made by female and male made 31.4% decisions.

Table 2 also revealed that male have greater extent of decision making power especially on direct money related and technology related activities while female had relatively higher decision making on labor requiring activities like vegetable marketing. But, according to Aryal (2002), female have more decision making power in crop selection which is also a technology related activity.

The finding of the study was quite different from that of Acharya and Bennett (1981) in two respects. The first one is in the application of fertilizer. In their study women were responsible for decision making and application while in the present study men are primarily responsible for this. Another is in decision making of crop selection where women made more decisions in their study. But male have more decision making power in this regard in recent study. That’s why it can be said that gender role has been changed over time.

**Gender control over household resources**

The study revealed that male has control over Land, household income and capital resources. In case of control over land, male controlled in 69.6% households and for 11.6% household, land was under control of women and for rest household (18.8%) both male and female have joint control over land resource.

Similarly, in case of capital for 58% household, male members controlled capital while 13.4 household have female members to control the capital resource and for 28.6% household both the gender have joint control over capital resources.

Household income was also controlled by male in half of the households (50.9% ) and both gender jointly controlled in 24.9% household while female were found to control in 6.2% household. Study showed that households who have female as their household head controlled household income. Regarding cereals, female members have more control. 46.4% household female members have power to control cereals while only for 22.3% family have male to control over cereals and 31.2% household have joint control over cereals.

**Gender involvement in different activities of CVF**

According to Acharya and Bennett (1981) female spend nearly as much time as men do in agricultural activities. But this recent study showed different result. Table 3 revealed that most of the activities in CVF were performed jointly by both gender rather than just one gender except spraying of insecticides was done more by male (57.1%) members of the family. That means male and female members work together in the field.

It was observed that laborious works or physically heavy works like nursery bed preparation, main field preparation, irrigation, and post-harvest have more involvement of male members while female predominated in tedious works like manure mixing, seedling transplantation, intercultural operations and harvesting of the vegetables.

In nursery bed preparation, male contributed 38.4% of labor in comparison with females’ 21.4% labor while both contributed 40.2% of the total labor need. However, for main field preparation, male, female and both contributed 40.2%, 11.6% and 48.2% labor contribution respectively. In irrigation, male contributed 44.6% of labor and female contributed 4.5% while both contributed 51.4% labor. Intercultural operation got only 4.5% labor force from male and 21.4% from female while both contributed 72.3% labor need. In case of harvesting of vegetables, male farmers contributed 8.9% labor and female contributed 19.6% labor while both gender jointly contributed 71.4% of total labor need. In post-harvest activities, male have more contribution than female i.e. 33.0 and 8.0% respectively and both jointly contributed 59.0% of total labor need.

In manure mixing female have more labor contribution than that of male. Female have 39.3% of labor contribution while male have 12.5% and both have 48.2%
Table 4. Different sources of agriculture information.

<table>
<thead>
<tr>
<th>Source of agriculture information</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extension workers</td>
<td>21(18.8)</td>
<td>7(6.3)</td>
<td>28(25.0)</td>
</tr>
<tr>
<td>Radio television</td>
<td>18(16.1)</td>
<td>3(2.7)</td>
<td>21(18.8)</td>
</tr>
<tr>
<td>Cooperatives</td>
<td>18(16.1)</td>
<td>13(11.6)</td>
<td>31(27.7)</td>
</tr>
<tr>
<td>Newspapers/leaflets/folders</td>
<td>1(0.9)</td>
<td>1(0.9)</td>
<td>2(1.8)</td>
</tr>
<tr>
<td>Neighbors/relatives</td>
<td>16(14.3)</td>
<td>10(8.9)</td>
<td>26(23.2)</td>
</tr>
<tr>
<td>Family head</td>
<td>0(0.0)</td>
<td>4(3.6)</td>
<td>4(3.6)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>74(66.1)</td>
<td>38(33.9)</td>
<td>112(100.0)</td>
</tr>
</tbody>
</table>

Figures in parentheses indicate the% age

Table 5. Attitude of the respondents towards CVF.

<table>
<thead>
<tr>
<th>Attitude towards</th>
<th>Index</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>3.46</td>
<td>VI</td>
</tr>
<tr>
<td>Marketing</td>
<td>4.22</td>
<td>II</td>
</tr>
<tr>
<td>Production</td>
<td>4.07</td>
<td>III</td>
</tr>
<tr>
<td>Number of traders</td>
<td>4.47</td>
<td>I</td>
</tr>
<tr>
<td>Other farmers</td>
<td>3.87</td>
<td>V</td>
</tr>
<tr>
<td>Governmental policies</td>
<td>3.04</td>
<td>VII</td>
</tr>
<tr>
<td>Product diversification</td>
<td>3.94</td>
<td>IV</td>
</tr>
</tbody>
</table>


Access to agriculture information

Table 4 revealed that the major sources of agriculture information for respondents were extension workers, radio television, cooperatives, newspapers, neighbors, relatives, family head, etc. Among these sources nearly 28% of respondents seek information from cooperatives. Similarly, 25%, 23% and 18% of the respondents seek information from Extension worker, neighbors/relatives and radio/television respectively. Very few respondents seek information from newspapers/leaflets/folders (1.8%) and family heads (3.6%).

Table 4 also revealed that male have more access than female in using all sources of information. Cooperatives have been providing seed, fertilizers, pesticides and necessary agricultural information to the farmers. They have conducted an agro-vet shop in the cooperative building.

Attitude towards different aspects of vegetable farming

Attitude towards various aspects of vegetable farming was measured, categorized, analyzed and presented in Table 5. This study showed that the overall good attitude towards commercial vegetable farming. Study also revealed that attitude index of number of traders was highest i.e. 4.47 out of total 5 score. Thus farmers have very good attitude towards the number of traders. Attitude towards government policies has lowest rank (3.04) which means respondents have indifferent towards government policies or have no idea.

Satisfaction level of the respondents to CVF

The satisfaction level of the respondents to CVF was measured and categorized into three categories. The frequency distribution of the respondents was analyzed and presented in Table 6. Study revealed that almost all respondents (97.3%) were satisfied with CVF except 2.7% who are indifferent or not decided to the CVF. None of the respondents were dissatisfied from this CVF. It might be due to the reason that they have been gaining good price from their products from traders.

Conclusion

The results of the study showed that male have more decision making power in direct money and technology related activities and involved in more laborious activities and female are more involved in tedious intercultural activities related to CVF. Household resources like land,
capital and saving/credit were controlled by male members. Again, male respondents have higher access to agricultural information materials and training activities. Commercial vegetable farming was not new enterprise to them. Farmers have started growing vegetable commercially as soon as the highway and feeder roots were made. Vegetable production have major share in household income in comparison to other components like livestock, cereal crops, and fruits. Commercial vegetable farming created a good income for youths. Majority of youths are engaged in this practice. Almost all the respondents were satisfied with CVF because of good income. Respondents have overall very good attitude towards CVF.

Table 5. Attitude of the respondents towards CVF.

<table>
<thead>
<tr>
<th>Attitude towards</th>
<th>Index</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>3.46</td>
<td>VI</td>
</tr>
<tr>
<td>Marketing</td>
<td>4.22</td>
<td>II</td>
</tr>
<tr>
<td>Production</td>
<td>4.07</td>
<td>III</td>
</tr>
<tr>
<td>Number of traders</td>
<td>4.47</td>
<td>I</td>
</tr>
<tr>
<td>Other farmers</td>
<td>3.87</td>
<td>V</td>
</tr>
<tr>
<td>Governmental policies</td>
<td>3.04</td>
<td>VII</td>
</tr>
<tr>
<td>Product diversification</td>
<td>3.94</td>
<td>IV</td>
</tr>
</tbody>
</table>


References


Song Y, Jiggins J (2002). Feminization of agriculture and the implication for maize development in China. Low External input Sustainable Agriculture (pp. 6-8). Netherlands: Agricultural Department.