

WOMEN IN HORTICULTURE

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ABSTRACT

Women are the key player in the development of horticultural crop in Nepal. They are mainly involved in vegetable production. Floriculture is also a part of their life for religious purpose. Their participation in fruit farming is also at remarkable level. From recent past, horticultural crops are commercialized and converted as cash crops. Many governmental as well as non-governmental organizations have implemented income generation programs through commercialization of horticultural crops targeting women. Floriculture is lead by private sector where women's involvement is visible. There is very few data available about women's involvement in horticulture sector. However, Ministry of Agricultural Development (MoAD) record shows that 44.1 % women are engaged in vegetable, potato and spice production. 47.7 % in fruit farming and 34.6 % are involved in youth targeted commercial vegetable production program. In addition, Floriculture Association of Nepal (FAN) shows that women's contributions in floriculture constitute more than 60 % and similar record found in tea sector as well. Their participation in coffee production has reached to 45% (CoPP).

BACKGRUOND

Agriculture is the mainstay of Nepalese economy contributing about one-third (32.6%) to GDP (AICC, 2015). Integrated farming with mixed crop, poultry and livestock is the characteristic of Nepalese agriculture and widely prevalent in the country, irrespective of agro-ecological regions (FAO, 2010). Both men and women contribute significantly to farming systems however, women make substantial contribution in agriculture sector. According to the Ministry of Agriculture Development (MoAD), 72.8 % of women and 60.2 % of men were engaged in agricultural activities in 2010 (MoAD 2010). The percentage share of women to agriculture sector is 12.6% higher than that of men.

After the establishment of Women Farmer Development Division (WFDD) under MoAD, two major objectives were set to give emphasis on women participation in agricultural development programs. Primarily, identifying specific programs appropriate for women and given emphasis to implement these programs. Beside this, creating agro based income generating employment opportunities to develop women entrepreneurship was the second major objectives. Income generating programs such as vegetable production, sericulture, bee keeping, etc were taken into consideration. Since then the district level offices under the MoAD are implementing these activities through formation of specific women groups or mixed groups. Similarly, Five Years Strategic Plan for Women Farmers Development of Nepal (1994-1999) was developed and implemented by the WFDD and this strategy provided space for women farmers' enrolment in cereals, horticulture, small livestock and poultry production.

Agriculture Perspective Plan (APP) identified agriculture sector as the driving force to trigger the economic development. APP spelt out the incorporation of gender issues in every possible program throughout the process of agricultural development. In this regard APP emphasized the significant role of women labor force in the production of high value commodities such as sericulture, vegetable and livestock. Also gave special priority in enhancing women farmers' access in improved technology, extension service and agricultural loan. Further the APP elaborated space for increasing women farmers' participation through specific women groups in vegetable production and other sectors like sericulture, bee keeping etc.

MoAD is implementing the National Agricultural Policy-2004; in which emphasis is given to the "empowerment of women" especially women from disadvantaged groups through targeted programs. The Tenth Plan 2003 envisages gender equitable outcome of agricultural development interventions ensuring 40% participation of women in overall agricultural activities and 60% participation in vegetable, horticulture and sericulture production activities (NPC (2005).

The nature and extent of women involvement in agriculture also varies greatly from region to region and ecological sub-zones. Women

are involved in most of the farming and related activities besides their exclusive involvement in domestic responsibilities. Traditionally, women do the exclusively tedious, time and labor intensive works like sowing, transplanting, weeding and intercultural operations, harvesting, threshing, transportation and post harvest operations like shelling, cleaning, grading and processing etc. After the harvest, rural women are almost entirely responsible for storage, handling, stocking and processing. So women are important partners in agriculture work force.

There has been increasing trend of share of horticultural crops over the past few years. Traditional farming of several horticultural crops are now being commercialized and several new enterprises have been emerging in horticulture sector (Poudyal and Acharya, 2013). On the other hand several studies shows that there is increasing trend of women's participation in this sector. Central Beuro of Statistics (CBS) of Nepal reflects that women's participation in agriculture labour force has increased from 36% in 1981 to 45% in 1991 and further made a jump to 48.1% in 2001. This indicates that agriculture is being highly feminized in recent years (FAO 2010). Women in other countries, play a much more significant role in horticultural crop production compared to staple crops. Women are the principal producers of most horticultural crops in developing countries and are predominantly involved in the value-addition activities from production to marketing (GHI 2007). For example in Bangladesh, women account for 48% of all labor in vegetable production compared to 11-20% for cereal production (Rahman, 2000; cited in GHI 2007). Throughout the developing countries of Africa, women play a dominant role in the production of horticultural crops and cultivate more than half of the total smallholdings (GHI 2007).

Besides creating jobs on the farm, the horticultural sector also generates off-farm employment, especially for women. This is the case for export and value-added processing industries, which are important sectors of the economies of Latin America and Africa. In Mexico, 80-90% of people engaged in packing operations are women, and even higher percentages of women workers are involved in fresh produce field operations. Evidence from Africa reflects a similar trend: women comprise 91 % of horticultural employees in Zimbabwe (Dolan and

Sorby,2003; cited in GHI 2007).

WOMEN INVOLVEMENT IN HORTICULTURE IN NEPAL

Women’s involvement in Kitchen Garden (KG) is very traditional and since time immemorial in Nepal. They are responsible for the production of mainly vegetables and some fruits in KG for the household consumption. Since last few years, horticultural crops are commercialized and becoming a source of income generation activities for the farmer. Both government and non-governmental organizations have implemented horticultural program as a livelihood improvement program.

Following programs shows the participation of women in horticultural development programs in Nepal.

Women Participation in Vegetables, Potato and Spices Program

Vegetable farming is not a new topic in these modern days and not just for the consumption in the family but also for income-generation. Especially in urban and peri-urban areas and road corridors, vegetable gardening seems one of the productive enterprises for income generation. Vegetable growers get higher profit margin compared to that of cereal crops. Government as well as other development organizations are implementing vegetable production program as an income generation activities targeting for women groups for the improvement of their livelihoods.



Fig 1: Woman working in vegetable field

Thus, women’s involvement in vegetable farming is very noteworthy. Following table depicts the women’s participation in Vegetables, Potato and Spices Program under MoAD.

Table 1: Women Participation in Vegetables, Potato and Spices Program

SN	Development Regions	Women Participation(%)
1.	Regional Agriculture Directorate, Eastern Region	39.8
2	Regional Agriculture Directorate, Central Region	48.0
3	Regional Agriculture Directorate, Western Region	47.9
4	Regional Agriculture Directorate, Mid-Western Region	49.7
	Regional Agriculture Directorate, Far-Western Region	
5	Average	40.3
		44.1

Source: MoAD 2070/71

This program mainly covers the activities like Seed Potato Self-sufficiency Program, Off-season Vegetable Production, Ginger Promotion Program and other programs associated with Vegetable and Spices crop promotion. These programs are implemented by District Agriculture Development Offices (DADOs) with the technical and financial support from Technical Directorates and associated National Program Offices. Regional Agricultural Directorates are involved in monitoring and supervision of the activities. The above table shows that women's participation in vegetables, potato and spices program is 44.1 %. Their participation is highest (49.7%) in mid-western region where as minimum (39.8%) in eastern region.

Several studies have indicated that women's participation in commercial vegetable farming is higher than their male counterparts in almost all the activities. Women are more active than men in vegetable production and marketing (Kunwar 2001). This helps generate income for rural women and has raise their socio-economic status in the society. The enhanced social and economic status of women leads to greater household food and nutrition security (IFPRI,2005; cited in GHI). In addition to the financial benefits of horticultural production, increasing women's access to vegetables and fruits for themselves and their families, will improve their health and work performance (GHI 2007).

Women Participation in Fruit Development Program

Fruit Development Program covers activities implemented by DADOs. The program covers both fruit farming in kitchen garden and commercial farming where sapling distribution, training, orchard management campaign and their post harvest activities are included. Women participation in these activities in 5 different regions is presented in table below.



Fig 2: woman observed her fruit tree

Table 2: Women participation in Fruit development programs

SN	Development Regions	Women Participation (%)
1.	Regional Agriculture Directorate, Eastern Region	49.4
2	Regional Agriculture Directorate, Central Region	47.0
3	Regional Agriculture Directorate, Western Region	43.4
4	Regional Agriculture Directorate, Mid-Western Region	45.5
5	Regional Agriculture Directorate, Far-Western Region	53.0
	Average	47.7

Source: MoAD 2070/71

The table above indicates that women’s participation ranges from 45.5% (in mid-western region) to 53 % (in Far-western region). An average participation of women in fruit production is 47.7% which reveals that women’s participation in this sector is also remarkable.

Women participation in Youth Targeted Commercial Vegetables Production Program

This program is initiated by Vegetable Development Directorate (VDD) since 2070/71 and implemented through DADOs. This program is implemented in 75 districts and total no. of youth benefited from the program is presented in table below.

Table 3: Women participation in Youth Targeted Commercial Vegetables Production Program

SN	Development Regions	Women Participation (%)
1.	Regional Agriculture Directorate, Eastern Region	34.5
2	Regional Agriculture Directorate, Central Region	25.6
3	Regional Agriculture Directorate, Western Region	48.0
4	Regional Agriculture Directorate, Mid-Western Region	19.4
5	Regional Agriculture Directorate, Far-Western Region	45.5
	Average	34.6

Source: MoAD 2070/71

The table reveals that total no. of youth farmer involved in the commercial vegetable production is 5059 where 1565 are women farmers which constitute 34.6%. Women participation in this program is slightly lower than other horticultural programs implemented in the district level. Thus commercialization of vegetable farming, gender role and its impact on women is really important to consider while implementing the program.

Women’s involvement in Coffee farming

Coffee though is second largest commodity next to petroleum traded in the international market. It is relatively new crop for Nepal in comparison to other crops like vegetables, fruits and staple food. Coffee was entered in Nepal in 1939 AD. Its production is potential in mid hills of 41 districts but commercial cultivation has been done in 21 districts of Central and Western Development Regions. Based on the data available from Coffee Promotion Program (CoPP) of Helvetas Swiss Inter-cooperation Nepal, 1750 ha is covered by coffee where almost



Fig 3: Woman working in coffee farm her fruit tree

30,000 farmers are involved. The Figure below shows the women's participation in coffee sub sector.

The figure shows the data of women's involvement in coffee farming for three years. Women's participation in this sector seems in increasing trend where it was 38 % in FY 2069/70 and continuously increased to 40% in 2070/71 and reached to 45 % in 2071/72.

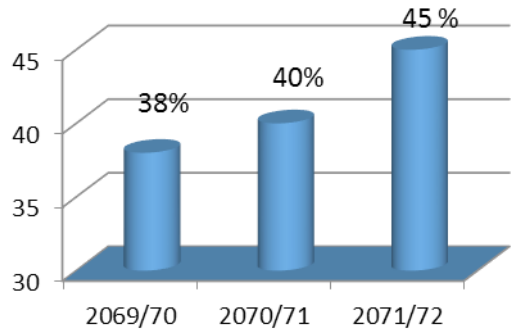


Fig 4 : Womens involvement in Coffee farming

Source: CoPP 2014

Women involvement in Tea farming

Tea industry in Nepal is growing rapidly due to the active participation of private sector. There is a huge international market for both Orthodox and CTC tea. Now tea is grown around 20,120 hectares of land in Eastern and Central development regions (NTCDB 2014). Tea industry is also a firm step towards empowering women as it generates good employment opportunities for women. The tea industry in Nepal provides employment to over 25000 workers with high participation of women. More than 60% of the workers employed in the tea industry are women (Thapa 2005).



Fig 5: Woman in harvesting tea leaves

Women involvement in Floriculture

Floriculture sub-sector grew recently with the increasing demand and supply in the domestic as well as international markets. The study conducted by Floriculture Association of Nepal (FAN) in 2007 reveals that there are 550 active growers in 34 districts. These farms and their networks altogether give employment to about 2500 people and more than 60% of them are women.



Fig 6: Woman busy in marketing

CONCLUSIONS

Throughout the history of Nepal, women have been crucial contributors to horticultural production and currently playing a significant role in commercial production in all sub-sectors as well. However, their involvement in commercial vegetable production is lower than other sub-sectors which need to consider during program planning stage in order to increase their involvement because women are the primary producers and providers of food for their family at household level. They are responsible for family nutrition which can easily be available from horticultural crops.

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