

# Participation of rural women in different cultural operations of fruit production in India-A review

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## Abstract

India is one of the major fruit producing countries of the world, there is a great opportunity to increase and improve the production of tropical, subtropical, and temperate fruits. Rural women play significant role in fruit production activities. Unfortunately their access to knowledge, technology, finance, information, and training is minimal which hampers productivity of fruit crops. Adequate awareness programmes should be organized on benefits of fruit crops at the local level to encourage women's participation. The participation of women in fruit production activities can be enhanced through development of low cost technologies. Various government agencies including research organizations and state departments are addressing these issues through technological and policy interventions. Ministry of Agriculture, Government of India has started National Agricultural Technological Project and Technology Mission of Horticulture, National Agricultural Innovation Project (NAIP) at national level for women empowerment through various activities like development of nursery, value addition, processing and marketing of fruit crops.

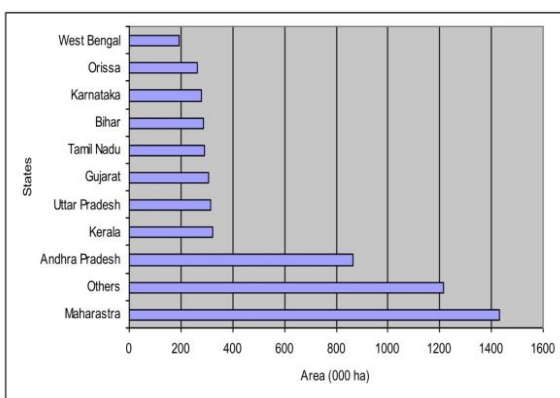
## Introduction

Fruit crops play vital role in economy of the nations and provide basic needs like food, fodder, fuel, feed, fibre. They are termed as "Protective Foods" A large variety of fruits is grown in India. Of these mango, banana, citrus, pineapple, papaya, guava, sapota, jackfruit, litchi and grapes (tropical and subtropical fruits); apple, pear, peach, plum, apricot and walnut (temperate fruits); and aonla, ber, pomegranate, annona, fig, falsa (arid zone fruits) are important. India is the second largest producer of fruits in the world next only to China.

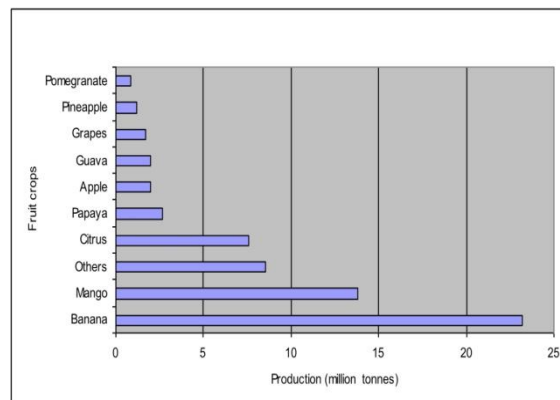
However, almost 20-30% of the fruits are lost at post harvest stage (Krishnamurthy and Rao, 2001). Thus the per capita availability of fruits is further reduced to around 80 g/day in comparison to a requirement of 120 g for a balanced diet as prescribed by the Indian Council of Medical Research. India leads the world in the production of mango (65%), banana (11%), acid lime (10%) and sapota (9%) besides recording highest productivity in grapes (Ghosh, 2001). These fruits are cultivated across the country. The leading fruit growing states are Maharashtra, Andhra Pradesh, Tamil Nadu and Karnataka Maharashtra accounts for 17.39% of production

Rural women make essential contributions to the agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world so, The nature and extent of women's involvement in fruit production varies greatly from region to region crop to crop, operation to operation depending on agro-climatic and socio-cultural variations. In north India, women mostly participate in fruits processing and kitchen gardening. In south India, besides these operations, rural women also participate in nursery technology. 60 % percent women participate in nursery raising, 70% in irrigation of nursery, 70% in application of manures and fertilizers, 80% in weeding and hoeing and 80% in post harvest and processing of fruits and vegetables (Pandey and Pareek, 1990). However, rural women face a lot of constraints/problems in the production and post production of fruit crops. Unfortunately the inadequate/ lack of access to knowledge, technology, finances; information and training are main factors that hamper their effective participation. There is

meager information available about participation of women in fruit production activities. Keeping in view the above, the present paper reviews the gender role in different fruit production activities.



**Fig 1. Area of fruit production (in million ha) 2010-11**



**Fig 2. Production of different fruit crops in India (million tonnes)-2010-11**

### Participation of women in temperate fruit crops

A study was carried out in Himachal Pradesh by Bala and Sharam in 2005 to highlight the magnitude of female labour participation in apple orchards and estimate the contribution of female labour to the total income from horticultural crops. The operations predominantly performed by women in orchards were digging of pits, preparation of basins, FYM and fertilizer application, irrigation, watch and ward, cleaning of the orchards and applying paste after training/pruning, picking and assembling of fruits. Women were also involved in taking them to godowns and about 65-70% of the labour required for these operations was performed by women. It was noticed that women's participation was more (45%) in cultural and physical control of insect pests as compared to chemical control (31%). Grading and packing of fruits was a very important operation in fruit cultivation and was generally carried out by specially trained males. In post-harvest management of fruits also women contributed significantly through home scale preparation of different products like jams, jellies, pickles, chutney etc. However, for the technical decisions like selection of varieties, rootstocks and plants, plant protection measures, time and place to market the produce etc. the females were totally dependent on their male counterparts (Bala and Sharam, 2005). The study thus revealed that the commercial fruit cultivation involves greater use of new technologies and inputs to which the tribal women need to be exposed. They need to be trained in different technical operations using time saving techniques in horticulture preferably through female extension workers, so as to reduce their drudgery and make better utilization of their time.

### Involvement of women in orchard management

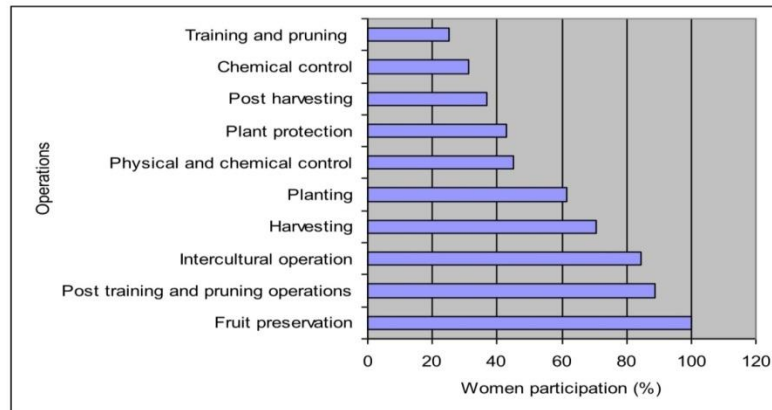
Women are 48% of the total population of Northern parts (ESCAP, 1997), and play a major role in fruit production. In the study area, it was found that women were actively involved in weed removal/hoeing, input transportation and its application, irrigation, picking, grading, drying of apricot, almond, walnut and mulberry, and cracking of walnut and almond.

### Participation of women in tropical and sub tropical fruits

Study on percentage share of women labour force in processing of fruit crops in India indicated that women's participation ranged from 20- 80% with 72 % in coconut, 84 % in cashew nut (Nair and Das, 1990). Women constitute 90 per cent of labour force in cashew processing industry. Most labour intensive operations like shelling and peeling in cashew are done by women workers, while 60 percent of grading of kernels was carried out by women (Kannan, 1983 and Das, 1985). Tripathi *et al.*, (2009), conducted study in five villages of Orissa and concluded that the role of women was less than men in

large orchards but the role of women in maintenance of fruit plants in homestead garden was much higher. In fruit crops the precocity (early bearing) of the crop was preferred by men and women. In case of mango, cultivar Amrapalli was preferred by men and women over cultivars Banganapalli and Gulabkhas. In case of papaya, cultivars Pusa Dwarf and Farm Selection were preferred by women due to higher yield, less seed content, suitable for vegetable in immature condition and good in taste. Women preferred cultivation of fruit crops for home consumption, processed, family nutrition and fire wood purpose while men preferred cultivation of fruit crops for sale and profit purpose.

As per data on participation of women in agriculture and varied sectors collected during 2007-2008 under All India Coordinated Research Project on Home Science coordinated by DRWA, with nine centres located in State Agricultural Universities, indicated that only about 6% of the women participate independently in horticulture activities. Highest percentage of women performed the activities jointly with men in all the states. It was observed that the joint participation in horticulture was 79.70%.



**Fig 3. Participation of women in temperate fruit crops 2010-11**

Tripathi *et.al* (2012) suggested in order to encourage rural women to be self-reliant and reap advantage of the benefits under this scheme, several initiatives have been taken under Technology Mission such as:

- Organization/ identification of women groups which would act as network for channelizing the horticultural support.
- Need-based assessment of women farmers in terms of the horticulture support such as input, technological and extension support.
- Prioritizing the activities of individual women groups on the basis of the need based assessment.
- Providing adequate organizational and financial support to the women groups.
- Providing technical training in horticulture and allied areas to women farmers.

Directorate of Research on Women in Agriculture (DRWA) mandated to conduct basic, strategic and applied research on gender issue in agriculture and allied sectors, has initiated studies for qualitative and quantitative assessment of role of women in fruit crop production and post production process through testing and refining appropriate technologies and policies.

Thus, empowerment of rural women for attaining economic and nutritional security can be achieved by enhanced production and productivity of fruit crops through development of appropriate and need based technologies.

#### Reference:

1. Anonymous 2010 & 2011. Annual Report of All India Coordinated Research Project on Home Science. Published by Directorate of Research on Women in Agriculture, Bhubaneswar.
2. Anonymous 2014 Indian Horticulture Database, National Horticulture Board, Gurgaon

3. Brij Bala and Sharam, S.D. 2005. Contribution of Tribal Women in Temperate Horticulture. *Acta Horticulturae*, **696**: 583-588.
1. ESCAP, 1997. Women in India: A Country Profile. United Nations, New York.
2. Ghosh, S.P. 2001. Fruit research: Present status and future thrusts. *Indian J. Hort.* **58(1&2)**: 7- 15.
3. Kannan, K.P. 1983. Cashew Development in India. Agricole Publishing Academy, New Delhi. pp150.
4. Krishnamurthy, S. and Rao, D.V.S. 2001. Status of post harvest management of fruits. Proceedings of National Seminar on the Tropical and Subtropical Fruits, IARI, New Delhi. pp.152-162.
5. Nair, M.K. and Das, P.K. 1990. Technologies for farmwomen in plantation crops, women in Agriculture- Technological perspective, International Federation for women in Agriculture. ICAR, pp. 100-103.
6. Pandey, R.M. and Pareek, O.P. 1990. Horticultural production technologies for farmwomen. Women in Agriculture- Technological Perspective, International Federation for Women in Agriculture. ICAR, New Delhi. pp 130-131.
7. Tripathi, P.C; Naresh Babu and Krishna Srinath 2009. Gender Issues in Horticulture. DRWA- Women Empowerment Series- 13.
8. Tripathi *et.al* (2012) Role of women in horticulture and women friendly technology. Directorate of research on women in agriculture, Bhubneswar.

