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FEMINIZATION OF AGRICULTURE: PROSPECTUS AND CHALLENGES

‘When women enter into agriculture that movement the face of agriculture will changes. Unless we empower the women in agriculture in rural area empowerment of nation is not possible’ - Asma Mohammed

Introduction

Agriculture is an engine of growth and poverty reduction in developing countries where it is the main occupation of poor. Many women in developing countries are major producers of food. It is observed that women play a significant role in agricultural development and allied activities including main crop production, live-stock production, horticulture, post harvesting operations etc.

Some historians believe that it was woman who first domesticated crop plants and thereby initiated the art and science of farming. While men went out hunting in search of food, women started gathering seeds from the native flora and began cultivating those of interest from the point of view of food, feed, fodder, fibre and fuel. Women constituted 38% of the agricultural labour force in developing countries. It is also estimated that 45.3% of the agricultural labour force consists of women. They have rich experience about cropping patterns, irrigation, pest control and soil management practices and are also the custodians of unique traditional ecological knowledge. They efficiently carry out agriculture and allied activities and if given opportunity, can play an instrumental role in promoting sustainable agriculture.

In reality women’s contribution to agricultural and food production cannot be quantified and can’t be answered with any degree of accuracy. Women do not usually produce separately from men. Agriculture is carried out by labour contributions from men and women in a collaborative manner. Due to growing agriculture related uncertainties and better livelihood opportunities available in urban areas, most of the men are migrating and rural women are burdened with the task of carrying out agriculture in their farms. It can be ascertained that women produce as much as 60 to 80 percent of the food in developing countries including staple food such as rice and maize.

As per FAO (2010) it is asserted that with the increasing male migration, women are becoming the sole producers of the food for the maintenance of the family, this shows that women play a major role in traditional activities such as subsistence food production, household chores, food processing, home crafts market trade etc. Rural women often manage difficult households and pursue numerous livelihood strategies. Their activities usually include cropping, tending animals, processing and cooking food, working as labourers in agricultural or other rural enterprises, gathering fuel and water, engaging in trade and marketing, concern for family member.

This emphasized the need to explore and elaborate the role of women in agriculture. With this background, the present seminar was undertaken with the following objectives:

1. To understand the concept of feminization of agriculture.
2. To study the challenges, steps taken for upliftment of women in agriculture and way forward.
3. To review the related research study

Women in agriculture

According to 1991 census, in India number of female cultivators has increased at much faster rate of 45.23 percent from 14.8 million in 1981 to 21.5 million in 1991. Similarly, the number of female agricultural labourer has increased by 36.45 percent. About 60 percent of agricultural operations like sowing of seeds, transportation of sapling, winnowing, storage of grain etc. are handled exclusively by women, while in other jobs they share the work with men.

Participation of both men and women in agriculture has declined, but the rate of decline has been faster among men than it has among women. Decline among women has been specifically in relation to their roles as cultivators, however their numbers as agricultural labourers have increased. The Agriculture Census (2010-11) shows that out of an estimated 118.7 million cultivators, 30.3% were females. Similarly, out of an estimated 144.3 million agricultural labourers, 42.6% were females. According to Census 2011, there has been a 24% increase in the number of female agricultural labourers between 2001 and 2011. As per Census 2011, out of total female main workers, 55% were agricultural labourers and 24% cultivators. The increasing concentration of women in agriculture is continuing with the follow up of 73 percent of rural female workforce participation in agriculture.

Women in India are major producers of food in terms of value, volume and number of hours worked. In rural India, the percentage of women who depend on agriculture is as high as 70%. In 2009, 94% of the female labour worked in cereal production, while 1.4% worked in vegetable production and 3.72% were engaged in fruits and spice crops. According to the Food and Agriculture Organization, Indian women represented a share of 21% and 24% of all fishers and fish farmers respectively. Rural women play a vital and crucial role not only in agricultural production i.e., crop production but also allied activities such as horticulture, livestock poor-harvest operation, tending animals, agro-forestry, fisheries etc. Most of the work that women do, such as collecting fuel, fodder and water, growing vegetables and keeping poultry for domestic consumption go unrecorded in the census country. Many women who work on family land are not recorded as workers. Rural women engaged in agriculture form 78 per cent of all women in regular work. They are a third of all workers on the land. The traditional gender division of labour ensures that these women get on average 30 per cent lower wages than men. A recent study conducted by Women and Population Division of FAO revealed that in developing countries women provide 70 percent of agricultural labour, 60-80 percent labour for household food production, 100 percent labour for processing the basic food stuffs, 80 per cent for food storage and 90 per cent for water and fuel wood collection for households. Women produce between 60 to 80 percent of the food in most developing countries and are responsible for half of the world's food production, therefore, women's role in food production ensures the survival of millions of people in all regions. Women's livelihood strategies, and their support and means of ensuring food security are diverged and complex, from cultivating field crops to livestock rearing, home gardening, gathering etc.

The pattern of livestock strength is mainly influenced by various factors such as farm size, cropping pattern, availability of range-lands including fodder and pasture. Rural women earn extra income from the sale of milk and animals. Mostly women are engaged in cleaning of animals, sheds, watering and milking the animals. She has very hectic life. She rises before dawn and ends at dusk and walks miles to collect water, if there is to be found. They are also responsible for collection, preparing dunk cakes, an activity that also brings additional income to their families. She works all day in a field, sometimes with a baby on her back. If she is lucky, droughts, blight or pests don't destroy her crops and she raises enough to feed her family and may be has left over to sell. But in some rural areas, there is no road to the nearest market. In spite of this, her work is considered as 'unproductive'. Moreover, her work is not counted in many economies "as economically active employment."

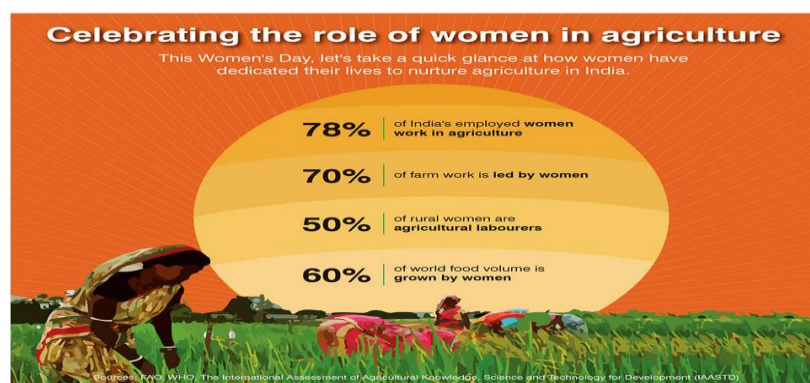
It was observed that majority of women is self-employed and work in dangerous environments. The crop farmer plants, tills, fertilize, sprays, harvests, packs and stores the product. They are involved in activities like winnowing, weeding, grading, threshing and cleaning of field farm operations. The physical strain of female farmers in agricultural activities seems to be high because of heavy work tasks. Various activities done by women in agriculture and allied field such as manually handling loads/material, threshing, transplanting, land preparation, cleaning of animal's sheds, feeding the animals and disposal of cow dung.

Rural women are engaged in agricultural activities in three different ways depending on the socio-economic status. They are work as:

- Agricultural Labourers.
- Cultivator doing labour on their own land.
- Managers of certain aspects of agricultural production by way of labour supervision and the participation in post-harvest operations.

Functions performed:

- Agricultural Activities: Sowing, transplanting, weeding, irrigation, fertilizer application, plant protection, harvesting, winnowing, storing etc.
- Allied Activities: Cattle management, fodder collection, milking etc.
- Women play an important role in agricultural development, in ensuring food security and preserving local agro-biodiversity.
- Rural women are also responsible for the integrated management and use of diverse natural resources to meet the daily household needs



Categories of farm women

Pearson classified the role of farm women into the following four categories:

- a) **Independent producers**- who manage the farm largely by themselves
- b) **Agricultural producers** -who share most aspects of work, responsibility and decision making with their households
- c) **Agricultural helpers**- who only participate in farm work at busy time when extra help is needed
- d) **Farm homemakers** -who contribute to the farm production indirectly by preparing meals and attending those workings in the field.

To highlight the contribution of women in agriculture October 15th is observed as International day of rural women. In India the same day has been observed as National women farmer's day / Rastriya Mahila Kisan Diwas. The theme of 2020 International Rural women day was "*Building rural women's resilience in the wake of COVID-19*" to create awareness of these women's struggles, their needs, and their critical and key role in our society.

Feminization of agriculture

Feminization of Agriculture is understood as "a measurable increase of women's participation in the agricultural sector". This is either an increase in the percentage of women in the agricultural workforce within overall female workforce or it is also sometimes seen as women taking over those gendered agricultural tasks which were once done only by men. Economic survey (2017-2018) says that with developing rural to city migration of men, there is feminization of agriculture sector, with increasing role of women in more than one sector such as cultivator, entrepreneur and labour.

The term 'Feminization of agriculture' in simple terms referees to the method of increasing participation of women in agricultural activities and its allied works. It can also be interpreted as an increase in the total percentage of women who are economically involved in the agricultural sector working either as self-employed or as agriculture wage workers or unpaid family workers. It can be consequently related to an increase in the percentage of women in the agricultural labour force with respect to male counterparts. Thus, it can be summarised as the extent to which women define, control and enact the processes of agricultural activities.

In the present world, the participation of both men and women in agriculture has declined, but the rate of decline has been faster and higher amongst men than it has among women. Decline amongst women has been witnessed specifically in relation to their roles as cultivators, whereas, their numbers as agricultural laborers have increased. The Agriculture Census (2010-11) reflects that out of the estimated 118.7 million cultivators, 30.3% were female farmers. On the same footing, out of an estimated 144.3 million agricultural laborers, 42.6% were females. As per the facts and figures of Census 2011, there has been a 24% increase in the number of female agricultural laborers between 2001 and 2011. Also, according to Census 2011, out of total female main workers, 55% were working as agricultural laborers and 24% cultivators.

In such scenario the role of Women in Agriculture and Allied Activities must be analysed. Rural women are engaged in agricultural and allied activities in three different ways depending on their respective socio-economic status.

Causes of feminization in agriculture

- 1) **Poverty:** Poverty is a major factor due to which women are forced to work as agricultural labourers to supplement the family's income. Women also work as unremunerated workers in family fields.
- 2) **Agrarian Distress and Shift of men to Casual work:** Agrarian distress is a predominant factor for disruption of farm labour or de-pesantatization i.e. migration of males from agriculture towards casual work. According to a 2013 report published in The Hindu, between 2001 and 2011, a total of 7.7 million farmers left agriculture. With rising shift of men from farm to non-farm activities, women have got absorbed in agricultural and allied activities.
- 3) **Migration to Urban Areas:** According to the Economic Survey 2017-18, with growing rural to urban migration by men, there has been 'feminization' of agriculture sector; there has been an increase in participation of women as cultivators, labourers and entrepreneurs
- 4) **Mechanization of agriculture:** With increased mechanization of agriculture, men have moved to other non-farm activities while women have been confined to traditional roles such as winnowing, harvesting, sowing seeds and rearing livestock.
- 5) **Mobility:** The upward mobility of women for employment is restricted and is further constrained by gender wage differentials. As per Census, about 33.7% of rural males

migrate for reasons of employment and better economic opportunities. However, in the case of females, it is as low as 3.6% for rural females.

Impact of feminization of agriculture

- As per FAO report if same resources are given to both men and women the yield increases by 20-30 percentage. The total agricultural output of developing countries increases by 10 percentage and there by leads to hunger reduction
- Women with accessibility to credit, ownership and marketing have the tendency to improve the nutritional security and increasing the household levels
- Women's collective farming found to be more profitable than individual farming
- Focus on both men and women double the income of family

Challenges faced by women in agriculture

- a) **Gender Gap:** The role of women is considered just of a “help” and therefore they are not allowed to participate in any decision making. There are differences in the resources available to men and women. There are a number of constraints faced by women with regards to issues like land ownership, access to credit, market, technology, seeds, awareness and other services. Female farmers are equally efficient as their male counterparts but owing to their less access to resources, they produce less. Promoting gender equality in agriculture can improve agricultural productivity and reduce extreme hunger and poverty. Between 1991 and 2001, the agricultural sector saw a decline in rural main workers from 183 million to 171 million, a reduction of 11.7 million male and a mere 0.5 million female workers-taking women's share in the main agricultural workforce from 27 per cent to 29 per cent. As males migrate to urban areas in search of non-farm activities, women are confronted with the dual responsibility of carrying out farm and non-farm activities. In such instances, they face meagre wages, long hours, hazardous work and sexual harassment.
- b) **Land Ownership Issues:** Lack of access to land is the major challenge faced by women in Indian agriculture. As per Agricultural Census (2015-16), out of a total 146 million operational holdings, the percentage share of female operational holders is only 13.87%. Despite growing dependence on agriculture, rural women are unable to access the benefits incurred from the land. The exclusion of women from the benefits of land ownership and the associate resources leads to further loss to society. Women tend to

utilize the benefits in nutrition, child education, and welfare of the family whereas men utilize the income mostly for their personal goods and fulfilling individual desires. Similarly, due to lack of land rights, female farmers are unable to utilize the livelihood assets that come from land ownership. They face difficulties in getting credit from banks as they are not the rightful owners of the land. Similarly, ownership of cattle and water resources like tanks, etc. rests with their male counter parts. Gender equality in land rights is thus both a livelihood objective in itself and a powerful means of eradicating poverty. Increasing women's control over land can positively and significantly influence the welfare of the country's next generation.

- c) **Access to credit:** A lack of ownership of land does not allow women farmers to approach banks for institutional loans as banks usually consider land as collateral.
- d) **Access to agricultural inputs:** When compared to men, women generally have less access to resources and modern inputs (seeds, fertilizers, pesticides) to make farming more productive.
- e) **Access to technology:** Mechanization of agriculture has resulted in confinement of women in low paying traditional works. Further, most farm machinery is difficult for women to operate.
- f) **Lack of training and extension services:** In order to make women play their role effectively, they should be trained to address the local conditions and use natural resources in a sustainable manner, with a view to achieving economic development without degrading the environment. Without the total intellectual and physical participation of women, it will not be possible to popularize alternative systems of land management to shifting cultivation, arrest gene and soil erosion, and promote the care of the soil and the health of economic plants and farm animals. Agricultural development programmes are usually planned by men and aimed at men. Mechanization, for example alleviates the burden of tasks that are traditionally men's responsibility. In order that farm women get a fair deal at the hands of change agents, one of the remedial measures that needs to be undertaken is to induct a sizeable number of well-trained women personnel in training and extension programmes of agricultural development agencies at all levels and more so at the grass-root level.
- g) **Managing different roles:** In addition to intensive work on the farm all day, women are also expected to fulfil domestic obligations like cooking, child rearing, water collection, fuel wood gathering, household maintenance etc.

- h) **Wage:** Despite more work for longer hours when compared to male farmers, women farmers have lower wage rates and at times remain unpaid.
- i) **Marketing:** Small and marginal farmers in India lack adequate access to marketing facilities due to lack of basic infrastructure like market yards, roads and transportation, and storage including freezers and presence of middlemen. Additional constraints for women include seclusion, lack of literacy, knowledge and information. Further, women have no representation in agricultural marketing committees and other similar bodies.
- j) **Feminization of poverty:** Women lack viable livelihood alternatives, and are forced to undertake farm activities that have been left by men due to agrarian distress. According to scholars, feminization of agriculture in India is actually “feminization of agrarian distress” or can also be termed as “feminization of poverty”.
- k) **Violence:** Violence and sexual harassment at workplace is a major issue faced by women agricultural labours and cultivators in India which mostly goes unreported.
- l) **Health and Occupational Hazards:** Women face health hazards in the cultivation of many crops and plantations due to lack of training, lack of protective gears and long working hours. Lack of nutritional security further perpetuates health issues.

Globally more than 400 million women engage in farm work, although they lack equal rights in land ownership in more than 90 countries. Women worldwide engage in non-mechanized farm occupations that include sowing, winnowing, harvesting, and other forms of labour-intensive processes such as rice transplantation. According to Oxfam (2013), around 80 per cent of farm work is undertaken by women in India. However, they own only 13 per cent of the land. Recent statistics released by the University of Maryland and the National Council of Applied Economic Research (NCAER, 2018) state that women constitute over 42 per cent of the agricultural labour force in India, but own less than two per cent of farmland.

Women in agriculture are affected by issues of recognition and in the absence of land rights, female agricultural labourers, farm widows, and tenant farmers are left bereft of recognition as farmers, and the consequent entitlements. The root of the problem begins at the official lack of recognition of the female agricultural worker, and the resultant exclusion from rights and entitlements, such as institutional credit, pension, irrigation sources, etc. According to the India Human Development Survey (IHDS, 2018), 83 per cent of agricultural land in the country is inherited by male members of the family and less than two per cent by their female counterpart.

Steps taken for upliftment of women in agriculture

The women are the backbone of agricultural workforce but worldwide her hard work has mostly been unpaid. She does the most tedious and back-breaking tasks in agriculture, animal husbandry and homes. The research efforts at the ICAR institutes have been tried to relieve her of the drudgery by providing time and labour-saving tools. Vocational trainings are also being conducted, to impart skills to undertake different avocations. In extension activities the women are now the centre point and activities are being planned keeping her in view.

The National Research Centre for Women in Agriculture (NRCWA) has been functioning at Bhubaneswar, Orissa, for developing methodologies, for identification of gender implications in farming systems approach and to develop women specific technologies under different production systems. There are 16 ongoing research projects in the areas of gender study on agriculture and household economy, management of coastal agro-eco system, extension methods for farm women, standardization of women specific field practices, occupational health hazards, reducing drudgery of women in agricultural operations, improvement of farming system suited to farm women, eco-friendly pest management technologies for vegetables among farm women, evaluation of interactive learning modules, technological needs in empowering women in rural aquaculture, and improvement in storage practices of seeds and grains.

Under the project *Identification and evaluation of interactive learning modules for dissemination of homestead technologies* ergonomic assessment was carried out on the traditional and improved method of paddy parboiling procedures. During paddy parboiling using improved technology (paddy par boiling unit) the heart beat rate and energy expenditure were significantly reduced and the output also increased from 35 kg per batch to 75kg per batch. The time duration of carrying out this activity also reduced from 2 days to 6 hours. Considering the significant utility of paddy parboiling unit, an interactive learning module is being developed on paddy parboiling unit, which will be useful for trainers in disseminating the technology.

Under the project on *Reducing drudgery of women in agricultural operations through use of improved equipment*, several developments were made.

- i. **Design refinement in sitting type groundnut decorticator for women workers for better ergonomic performance**—These refinements included increase in handle

length from 32 to 37cm, increase in sitting stool height from 20 to 30 cm and change in wooden base design for easy packing and transport. The output of improved prototype was 30 kg/hr. The women workers liked the equipment as the work could be done in sitting posture and the force required for its operation was less than the standing type decorticator. This equipment has been taken up for prototype production and 55 units were fabricated and sent to various places for demonstration and use.

- ii. **Comparison of heart rate responses in three types of dibbling methods for maize i.e. traditional method, with Naveen dibbler and with rotary dibbler**— The parameters used for comparison were heart rate (for evaluation of work load), increase in heart rate in beats/ m² of area dibbled and output in m² /hr. The output with rotary dibbler was found highest i.e. about 9- times greater than traditional method and Naveen dibbler. The heart rate data showed no significant difference in the dibbling with traditional method and with Naveen dibbler. But the women workers liked the Naveen dibbler as the workers carried out the dibbling in standing posture and discomfort due to the bending was avoided. In rotary dibbler though the output was 9-times higher, the mean working heart rate was 141.7 beats/min thus necessitating the subject to have frequent rest pauses.

The project *Management of coastal agro-eco system affected by super cyclone in Orissa* was started with objectives — Nutritional status assessment of the families and intervention, intervention through development of nutritional garden in homestead areas of the families; and preparation of material for nutrition education to the farm families.

Under the project *Involving rural women in aquaculture* – A step towards ensuring economic and nutritional security 56 backyard ponds of Puri and Khurda district were selected for fish culture and nursery raising through the active involvement of rural women. Baseline information of the participating women, water analysis of the ponds and trainings on pond preparation, nursery rearing of rohu and catla, cleaning of weeds, removal of weed fishes, manuring and lime application were undertaken. Nursery rearing of rohu and catla spawn for 1 to 1 ½ month produced healthy and quality fries.

The NATP Project studies on Fisher Women in Coastal Ecosystem of Andhra Pradesh, Karnataka and Kerala was initiated to empower the fisher women technologically, to reduce their drudgery in the context of fish processing and to create an awareness on hygiene and sanitation in fish handling. This project was envisaged for technological economic

empowerment of women through training, education and participatory approach involving self-help women groups. The major thrust was on health, nutritional status, economic empowerment, natural calamity management and entrepreneur development. The study covered 28 villages comprising more than 6,000 fishery families in Andhra Pradesh, Karnataka, Kerala and Tamil Nadu. Further, low-cost ice cream freezer and fresh fish vending and Display table have been fabricated under this project and the patent numbers were received. The technology has been licensed for manufacturing these two equipment for two years.

Low-cost ice cream freezer

- The cost of the equipment is low (Rs 3,950)
- No technical know-how is needed
- Labour is not required as in the traditional ice cream making
- Ice cream can be prepared by a layman also Capacity per batch is 4.5-6 litres.
- Time required per batch is 5-7 minutes

Multipurpose fresh fish vending and display table

- The cost of the equipment is Rs 5,600
- To store the leftover fish
- To cut the fish
- Also, for display the fish

Cafeteria for women in agriculture

Mainstreaming gender is an important component of the Policy Framework for Agricultural extension (PFAE) developed by the Ministry of Agriculture (Government of India). The Centre developed a cafeteria for the Ministry of Agriculture for offering it to states to guide the development of new programmes for women in agriculture. New Programmes for women in agriculture should be developed based on the following key principles identified in the cafeteria.

- New programmes that are proposed should expand their definition of agriculture beyond crop production and should be based on site specific needs assessments.

- New projects that are proposed should build on groups, networks, organizational capacity and resources already in place and functioning from existing project initiatives and should take on and build on lessons from existing projects.
- Apart from extending agricultural technologies on production and post-harvest to women farmers, new programmes should concentrate their efforts in providing crucial back-up services and support (backward and forward linkages) to help women groups to successfully adopt new techniques, crops and enterprises to increase their incomes and employment opportunities.
- New programmes should be planned with adequate resources for mobilizing women, forming groups, improving capacity and capability in technical, organizational and commercial (business/micro-enterprises) sectors and support systems (credit, raw material and markets).
- These should be prepared jointly in consultations with other organizations (public, private and voluntary) that can potentially complement and supplement the efforts of the state Department of Agriculture.

Government efforts:

- The government has earmarked at least 30% of the budget allocation for women beneficiaries in all ongoing schemes/programmes and development activities.
- Women centric activities have been initiated to ensure benefits of various beneficiary-oriented programs/schemes reach them.
- The government has been focusing on women self-help group (SHG) to connect them to micro-credit through capacity building activities and to provide information and ensuring their representation in different decision-making bodies.
- Since, most farmers including women farmers are marginal farmers, the government has proposed that crop land holdings must be consolidated to reap the benefits of agricultural mechanization including enhanced productivity, promote the rental model of farm machinery and reduce the cost of operations.
- Preference to Women Farmer in various policies such as organic farming, self-employment scheme, Pradhan Mantri Kaushal Vikas Yojana
- Provision to Kisan credit cards and Mahila Kisan biotech Fellowship.

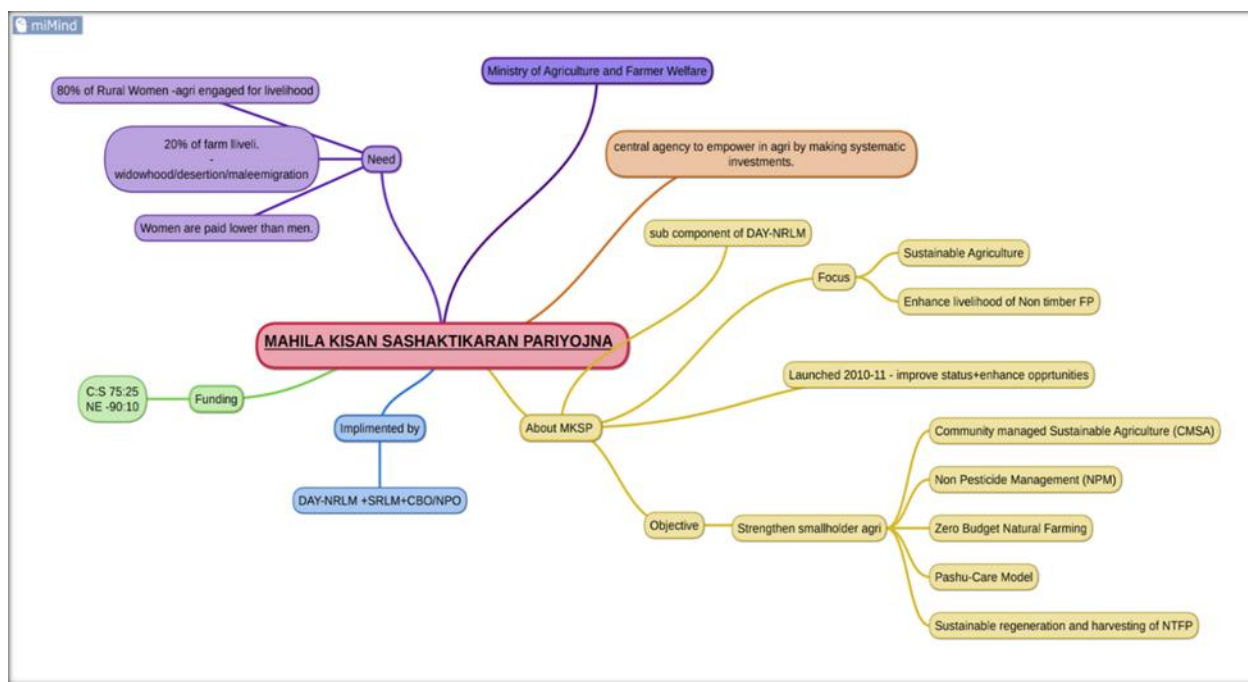
Mahila Kisan Sashaktikaran Pariyojana (MKSP)

A sub component of the Deendayal Antodaya Yojana-NRLM (DAY-NRLM) seeks to improve the present status of women in Agriculture, and to enhance the opportunities available to empower her. 36.06 Lakh Mahila Kisans have been benefitted through 84 projects in 24 state and union territories in the country. Objectives of MKSP are follows.

- To enhance the productive participation of women in agriculture;
- To create sustainable agricultural livelihood opportunities for women in agriculture;
- To improve the skills and capabilities of women in agriculture to support farm and non-farm-based activities;
- To ensure food and nutrition security at the household and the community level;
- To enable women to have better access to inputs and services of the government and other agencies;
- To enhance the managerial capacities of women in agriculture for better management of biodiversity;
- To improve the capacities of women in agriculture to access the resources of other institutions and schemes within a convergence framework.

Need of MKSP

- Rural women form the most productive workforce in the economy of the majority of the developing nations including India.
- Agriculture which is the single largest production endeavour in India, contributing to 16% of the GDP is increasingly becoming a female activity.
- Agriculture sector employs 80% of all economically active women which they comprise of 33% of the agricultural labour force and 48% of self-employed farmers.
- However, women in Agriculture are generally not able to access extension services and production assets like seeds, water, credit, subsidies among others.
- Hence, the MKSP scheme aims to empower women in agriculture by making participation and participation and productivity, as also to create and sustain their agriculture-based livelihoods.



Special provisions for women farmers in national schemes

National Mission on Agricultural Extension & Technology (NMAET) – Sub-Mission on Agricultural Extension (SAME)

1. Agriculture Technology Management Agency (ATMA)

Support for women food security groups - Support for Women Food Security Groups (FSGs)-Rs.0.10 lakh per group/year to achieve food security at the domestic/house hold level through setting up of kitchen garden, promoting off farm activities such as piggery, goat-rearing, bee-keeping etc.

- Support for gender coordinator
- Representation of women farmers in decision making bodies
- As beneficiaries- At least 30 percent of beneficiaries are of women

2. Agri-Clinics & Agri-Business Centers (ACABC) - 44% Back-ended composite subsidy towards cost of project to women as compared to 36% to men

3. Mass Media Support to Agricultural Extension - One day specially allocated to cover areas of core competence women farmers in programmes of All India Radio & Doordarshan

Mission for Integrated Development of Horticulture (MIDH)

Assistance for horticulture mechanization also available grower associations/ farmer groups/ Self Help Groups/Women farmer groups having at least 10 members, who are engaged in cultivation of horticultural crops.

National Mission on Oilseeds & Oil Palm (NMOOP)

Promoting Women Groups-Provision available under the Mission for involvement of Co-operative Societies, Self Help/Women Groups/FIGs/FPOs etc.

Integrated Scheme for Agricultural Marketing (ISAM)

33.33% Rate of Subsidy (on capital cost) for women as compared to 25% for men. Maximum Subsidy Ceiling is Rs. 500.00 lakhs for women as compared to Rs.400.00 lakhs for men

National Food Security Mission (NFSM)

At least 30% allocation of the funds is for women farmers, provide training based on cropping system to farmers including weaker section of women

National Mission for Sustainable Agriculture (NMSA)

At least 50% of the allocation is to be utilized for small, marginal farmers of which at least 30% are women beneficiaries/farmer

Sub-Mission on Agricultural Mechanization (SMAM)

Training Programmes on Gender friendly Equipment for Women farmers are to be conducted by Farm Machinery Training & Testing Institutes.

Women entrepreneurship

“Somebody once said, educate a woman & u will educate a family. I am saying empower a woman to become an entrepreneur, & you will create an entire family of

entrepreneurs. Women entrepreneurship is the need of the nation right now, it is the surest quickest way to make INDIA a super power.

Government of India has defined women entrepreneurs as owning and controlling an enterprise with a woman having a minimum financial interest of 51% of the capital and giving at least 51% of the employment generated in the enterprise to women.

Importance of women entrepreneurship

A good share of the population is traditionally outside the domain of economic activities. They must be made part of the economic development, because it will ensure the economic & social development of the women along with providing more human resources to strengthen the economy of the country. The economic status of women is now accepted as an indicator of a society's stage of development.

Some of the women led initiatives:

Farmers are constantly on the lookout for newer and more efficient ways of cultivating crops, and these women-led initiatives are bringing just that to the table.

From transforming the lives of farmers and focusing on chemical-free produce, to bringing city-dwellers closer to nature and giving them a hands-on agricultural experience, here are women-led farming initiatives that are reaching new and innovative heights.

- a) **FARMIZEN:** Gitanjali Raja Mani started Farmizen with two goals in mind. One was to give city-dwellers fresh, chemical-free produce through the farming experience. The other was to help improve the livelihoods of farmers. Hailing from a family of farmers in Kerala, Gitanjali Rajamani quit her corporate job of seven years to go back to her roots. In 2017, she started Farmizen, a start-up that allows one to rent a community farmland outside the city to grow their own produce, safely and organically. And when he is caught up in the city life, on-site farmers will take care of his plants. Farmizen is currently present in Bengaluru, Hyderabad, and Surat, with about 1,500 subscribers and 24 farms across the three cities, and around 40 acres of land under cultivation. They want to expand to 100,000 families and generate over Rs 300 crore in recurring revenue in two years.

- b) Global Self-Help Group Farmers Produce Organization (GSHGFPO):** A resident of Ludhiana, Gurdev Kaur Deol quit her government job to start farming, and work for the empowerment of women. In 2008, with the view to promote organic farming and other activities, she started the Global Self-Help Group, which was formally registered as an organization in March 2015. To make use of the 2.5 acres of land she owned in her village, Gurdev Kaur Deol decided to undergo two months of training at Punjab Agriculture University (PAU), to learn about growing vegetables, fruits, and grains. She also received training on how to produce manure. Now with hundreds of women employed, GSHGFPO cultivates a variety of vegetables, makes sauces and juices from the produce, and also does bee-keeping, with over 450 boxes for the same. Additionally, it purchases organic pulses and spices from other farmers which it packages and sells.
- c) Green venture:** Founded by Kavya Chandra, A Green Venture is a Bengaluru-based 'eco-enterprise' that curates experiences to connect people with natural, chemical-free food at farms through workshops, camps and trips for both children and adults. Kavya believes, “supporting small groups, collectives or a system, which gives us a window to learn how organic farming is practised, will allow buyers to make more informed choices about their fruits and veggies”.
- d) Herbivore farm:** Co-founded by Sakina Rajkotwala, Herbivore Farms is Mumbai’s first hyperlocal, hydroponic farm that grows nutritious, premium quality, pesticide-free greens like Swiss chard, kale, rocket, and lettuce. Herbivore Farm is spread over 1,000 sq ft, and houses over 2,500 kinds of plants in a temperature-controlled indoor setting. The environmental benefits of the way Herbivore Farm operates include using up to 80 percent less water for growth through a "recirculating irrigation system", and growing the plants in a vertical format, which allows it to grow five times more than it would have been able to otherwise. Today, the farm grows 2,500 plants, and sells fresh, organic vegetables to customers across Mumbai.

Way Forward

- A gender analysis is important for development policies and programs directed at agriculture. The Economic Survey (2017-18) recommended that there is an urgent need for ‘inclusive transformative agricultural policy’ aimed at gender-specific interventions.

- The government should ensure access to secure land and property rights. A formal access to land will help increase productivity by facilitating investments and would ensure household food security and nutrition
- Provision of credit without collateral under the micro-finance initiative of the National Bank for Agriculture and Rural Development should be encouraged
- The training of rural women to help them adopt modern agricultural techniques that are tailored to local conditions and that use natural resources in a sustainable manner. Krishi Vigyan Kendra in every district can be assigned an additional task to educate and train women farmers about innovative technology along with extension services.
- It is important to have gender-friendly tools and machinery for various farm operations. Manufacturers should be incentivized to come up with more women-friendly machineries.
- Legal measures should be taken to ensure equal pay for work of equal value. Women should be made aware to help them negotiate equal wages and women organizations and unions can play an important role in this. The ILO has developed a program named Women's Education for Integrating Women Members in Rural Workers' Organizations with the objective of increasing empowerment of rural women in Tamil Nadu and Madhya Pradesh.
- To achieve the full economic benefit from employment, rural women should be provided a greater choice over their occupations so that they are not forced to do the work left behind by men. It is thus important to have overall women empowerment through education, awareness and doing away with gender biases.
- Document best practices of addressing gender and equity issues in the Agriculture and allied programmes.
- Involve women organizations in empowerment processes
- Reward the Gender Sensitive Taluk/District etc.
- Jharkhand Govt initiative of registering land in name of women for rupee 1

Extension Strategies related to farm women

- The extension services should be gender sensitive so that farm woman have full and appropriate access to meetings, demonstrations, field days and other activities that can increase their farm production and income.

- Informal communication networks and channels are frequently gender specific. Therefore, extension personnel need to learn how to use these traditional networks more effectively to disseminate improved technology to women farmers.
- Training and skills imparted to women
 - a) training in latest advances in agriculture
 - b) training in leadership to motivate to play role of change agent
- Employment of women in aspects of agricultural extension services
- Organize women into functional groups
- Gender sensitive extension approaches
- Extension system will be required to develop new extension training material that are gender sensitive and appropriate for farm women

Review of related research studies

1. Participation of Farm Women in Decision-Making Process on Agricultural Operations in Yadgir District of Karnataka - S.B. Goudappa, S. Surekha and B.S. Reddy, 2012

The study was carried out in Shahapur taluk of Yadgir district in Karnataka. Four villages were selected for the study viz., Chamanal, Dornalli, Hattigudar and Hothapet. A purposive sample of 120 farm women were selected from these four villages i.e., 30 farm women from each village by following random sampling procedures. The structured interview schedule was designed specifically and pretested in non-sample area in order to attain relevancy and consistency of the schedule. The data collection was done by using pre-tested schedule through personal interview schedule from the respondent farm women.

The hand weeding in agricultural crops was performed by cent per cent of the farm women, whereas on the contrary cent per cent of men alone carried out the entire responsibility of ploughing and harrowing of the field. A large majority of the farm women performed in the farm activities like stubble collection (90%), dibbling of seeds (80%), sowing with seed bowl (68.33%), transplanting of seedlings and irrigation (56.66% each). A fair sizable number of the men alone had taken care of the application of fertilizer (68.33%), preparation of seed bed (58.33%), keeping accounts (53.33%), field irrigations and transplanting of seedlings (43.33% each). Further, it is also noticed from the table that a large majority of the farm women performed the post-harvest operations viz., processing of grains (91.66%), grading of quality seeds (89.17%), harvesting (74.16%), threshing activities (70.00%) and storage of food grains

(67.50%). Forty-six per cent of the farm women had performed the accounts keeping on the contrary to fifty-three per cent in the men alone.

The study found that a large percentage of the farm women participated in the decision-making process at awareness and initiating solutions for solving problems related to agricultural operations viz., hand weeding (80.00%), harvesting (75.83%), irrigation (74.16%), selling and buying the land and equipment (71.67%), land preparation and application of fertilizer (67.50% each). It indicates that farm women are very much watchful and aware of the needs in the farm and they have also gained knowledge and skill in spotting the problems and taking initiation in finding solutions to them. This goes on to show that farm women are quite active in the initial phases of decision making. But when it comes to taking a final call on farm activities, farm women say was only restricted to less than 20 per cent in almost all the farm activities considered for surveying except in keeping farm records where it was around 46 per cent. This shows the paradoxical situation in which women is placed. The patriarchal system and the patrimonial mindset is still the dominant ideology prevalent in rural India. The male dominance over women is continuing unabated. Though women a major player in sustaining all cores related farm and home, the study reveals that when it comes to decision making men are having a final say. But heartening factor is that the involvement of farm women in decision making related to farm activities is increasing.

The study revealed that comparatively larger percentages of farm women were noted for higher level of involvement in decisions related to land preparation (75.13%), irrigation (74.16%), application of fertilizer and pesticide (67.50% each), sowing (64.16%) and hand weeding (55.00%). These tasks are high important than other tasks such as application of pesticides etc. and delay of such high important tasks lead much losses. Thus, the percentages of farm women participants were found to be decreasing with lower level of participation. A higher percentage of farm women involvement in farm operations ranged from 4 to 18.33 per cent, where application of fertilizer and hand weeding (18.33% each), grading and buying and selling of land and equipment (17.50% each) recorded. Farm women participation in medium level ranged between 15.83 to 53.33 per cent, depicting higher percentages (40 to 50%) in decisions related to grading, selling and buying of land and equipment, keeping account, storage of food grains, transplanting of seedlings and harvesting. While lower percentages observed in land preparation, sowing, irrigation and application of fertilizer and pesticide. These operations are important since they protect the crops and help in efficient marketing of

farm produce to fetch good market price. In the medium category of participation of decision making by rural farm women, important operations attended are grading, selling and buying of land, storage of food grains, harvesting etc. since these tasks are very much concerned by farm women because of their contribution to fetch higher market price.

2. Decision making and participation of farm men and women in sugarcane cultivation: a study in mandya district- K. Nishitha, 2015.

The study was carried out in Mandya district of Karnataka state during 2014-15 to analyse the decision making and participation of farm men and women in sugarcane cultivation activities. One hundred and twenty respondents (60 farm men and 60 farm women) from small and marginal farm households were interviewed using a pre-tested schedule. An overwhelming majority of farm men (93.34%) and women (81.65%) were belonging to medium to high and medium to low levels of decision-making category, respectively. Three- fourth of farm men (75.00%) were having medium to high level of participation, while 76.66 per cent of farm women were having medium to low level of participation in sugarcane cultivation activities. There existed a significant difference between farm men and women in respect of their decision-making pattern and extent of participation. Education, innovativeness, management orientation, economic motivation, mass media participation, extension agency contacts and extension participation of farm men and women had a positive and significant association with their decision making and extent of participation. Majority of farm men (64.00%) perceived drudgery while mixing and application of plant protection chemicals, whereas majority of farm women perceived that hand weeding (83.33%) and planting setts (60.00%) were the activities that involved drudgery.

3. Rural Women Participation in Farming Activities of Shivamogga District of Karnataka State - S. Sowjanya, B. K. Manjunath, C. K. Sudha and L. V. Srikanth Choudary, 2016

The study was designed to explore the extent of women's participation in various agricultural activities in Shivamogga district. A total of 160 rural women were selected through proportionate random sampling and interviewed with a well-designed, pre-tested interview schedule. The findings showed that cutting, picking, cleaning of grains, drying of grains, storage, processing, weeding, winnowing are the major farm operations mainly performed by farm women. Participation of farm women in agriculture was significantly affected by socio-economic variables like –age, family income, land holding. It is recommended that a female

extension wing should be established at district level to train and provide services to rural women. Women training centres should be established at district level whose responsibility to conduct training for rural women on different agricultural activities to enhance their knowledge and skills in agriculture and allied aspects so that they can contribute in a better way in the national economy.

The study indicated that cutting, picking, cleaning of grains, drying of grains, storage and processing are the major farm operations wherein women participation was 100 percent. It was observed that winnowing, weeding, gap filling, grading, shifting produce to threshing floor and cleaning of field farm operations in which the participation of women was more than 75 percent. The tasks in which women participation was varied between 50-75 percent were thrashing, raising nursery for seedlings and thinning. The results also show that sowing and manure application were performed on field by women 35 to 40 percent. Least involvement of farm women was found in marketing (6.71%), plant protection measure (3.12%), ploughing of field (3.12%) and in fertilizer application was (1.87%).

The study shows that the transplanting, drying of grains, cleaning of grains and processing were major farm activities which were completely done by farm women. The farm operations including cleaning of field, raising nursery for seedling, weeding, gap filling, picking, shifting production to threshing floor, winnowing, storage & grading in which major amount of work done by farm women. They do more than half work of sowing, thinning, and manure application. The farm women do less than half work of cutting and threshing operations. In case of ploughing of field, levelling of field, and fertilizer application least amount of work was performed by women. It has been found out that the relationship if existed between the personal variables of women with their participations. Obviously, the young aged farm women are more prone to change. Their physical strength enables them to perform more agriculture activities. It is also showing by data that land holding and family income were also affecting the participation of farm women in agriculture activities significantly

From the results it was concluded that in the study area vast majority of rural women play a significant and crucial role in agriculture and allied fields. Research showed that farm women's participation was maximum in Cutting, Picking, cleaning of grains, drying of grains, storage, processing operations and major part of cleaning of field, raising nursery for seedling, weeding, shifting production to threshing floor, winnowing, & grading operations are also done by farm women. In case of levelling of field, fertilizer application they do least amount of work,

whereas there is no participation of farm women in ploughing of field, plant protection measures and marketing activities.

Conclusion

Agriculture is central to economic growth where women can learn the best way to grow and cultivate their own nutritious food and sell at markets. Closing the gender gap in agriculture would produce significant gains for society by increasing agricultural productivity, reducing poverty and hunger and promoting economic growth. Women have been contributing enormously to agricultural growth and development through their involvement in crop production, horticulture, animal husbandry, fisheries, natural resource management etc. Though the proportion of women workers in agriculture has declined, yet they constitute a significant workforce in agriculture. Globally, they constitute large percent of economically active population in agriculture. The need of the hour is on how to bridge the gender gap and empower women with new knowledge and technology is a great challenge, particularly in the context of socio-economic and climate related changes.

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Discussion

1. How gender equality differs from feminization of agriculture?

Gender equality is the state of equal ease of access to resources and opportunities regardless of gender, including economic participation and decision-making; and the state of valuing different behaviours, aspirations and needs equally, regardless of gender. Feminization of agriculture can be interpreted as an increase in the total percentage of women who are economically involved in the agricultural sector working either as self-employed or as agriculture wage workers or unpaid family workers.

2. How the women empowerment related to feminisation of agriculture? And does it increase the workload?

Feminization of agriculture has implications of women empowerment as access to services, income, decision making ability and better opportunities. The benefits of wage employment for women include economic independence, mobility, and increased ability to make their own decisions. Govind Kelkar commented that women's mobility is increased as they go to the local market to sell their smaller products. women have acquired a higher level of decision-making power in the household over land use and over income allocation. As women has to engage in more than one role such as domestic obligations their workload will get increases on other hand.

3. What are the initiatives of National Gender Resource Centre in Agriculture?

A National Gender Resource Centre in Agriculture (NGRCA) has been setup in the Department of Agriculture Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, since 2005-06. The centre has the initiatives is as follows

- Macro-micro level and action research studies
- Adoption of gender friendly tools by women farmers and its impact on their lives,
- Schemes for improving women farmers access to extension services and gender mainstreaming in agriculture
- Kisan Credit Card and issues related to credit availability to women,
- Role of Financial institutions in empowering,
- Gender based impact analysis of ATMA programme.

4. How the caste system affects the participation of Women in agriculture?

Agricultural Census (done in 2015-16) shows, Dalits (or Scheduled Castes) operate just short of 9% of this vast land. Their population share in rural areas is 18.5% as per the 2011 Census. The Adivasi communities (or Scheduled Tribes) operate about 11% of the land which is equivalent to their population share in rural areas. But most of this land is in difficult remote terrain, not reached by irrigation or even all-weather roads. It includes forest lands operated by communities for subsistence farming. As weaker section of women are unable to get land as own their participation is less as agricultural land holder and working as very low wages as agricultural laboures.

5. How the problem of wage disparity can be controlled?

As farmers and agricultural labourers, women contribute significantly to food security of the country, but they are paid 22 per cent less than their male counterparts, shows a report on agricultural statistics released by the Minister of Agriculture and Farmers' Welfare. While wages of both male and female farmers increased in the last decade (2006-17), the wage disparity continues and the women farmers continue to earn less. The wage gap was the highest during 2012-14 when women farmers received nearly 27 per cent less than the men during the period. However these problems can be eliminated through the followings:

Better initiatives through government policies supporting women in agriculture, making women aware of their equality, providing better employment opportunities and education

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GKVK, BANGALORE-560 065**

Name: Riza Mathew
ID. No: PALB 9163
Class: Sr. M.Sc.

Date: 29-01-2021
Time: 3.00 PM
Venue: Dr. Dwarakinath hall

Seminar I

Feminization of Agriculture: Prospectus and Challenges

Synopsis

Farm women plays an important role in contributing to economic growth of the country.

A farm woman is an individual who involve with farm work, who is the primary contributor of labour and decision making to a farm on a daily basis. The activities performed by them include producing agricultural crop, cleaning animals, preparing food, working in rural enterprises, engaging in trade and marketing, caring family members and maintaining their homes. But it is unfortunate that her role is not adequately recognized and properly her contribution not qualified in the male-dominated society. Women are intensely involved in agriculture yet their knowledge about the new technologies is limited because of different sociological factors which affect their ability to generate higher livelihoods for themselves and their families. Thus, it is important to think scientifically about women empowerment not only for equity reasons but also for the sake of efficiency to rise the agricultural production and rural livelihood. Keeping these aspects in view, the present seminar has been conceptualized with the following objectives.

1. To understand the concept of feminization of agriculture.
2. To study the challenges, steps taken for the upliftment of women in agriculture and way forward.
3. To review the related research studies

Feminization of Agriculture

Feminization of Agriculture is understood as “a measurable increase of women’s participation in the agricultural sector”. This is either an increase in the percentage of women in the agricultural workforce within overall female workforce or it is also sometimes seen as women taking over those gendered agricultural tasks which were once done only by men. Economic survey (2017-2018) says that with developing rural to city migration of men, there is feminization of agriculture sector, with increasing role of women in more than one sector such as cultivator, entrepreneur and labourers.

Challenges and steps taken for the upliftment of women in agriculture

Lack of access to land, technology, training, extension services, productive resources and financial assistance limits their ability to develop agricultural livelihood. Women face health hazards in the cultivation of many crops and plantations due to lack of training, lack of protective gears and long working hours. Despite more work for longer hours when compared to male farmers, women farmers have lower wage rates and at times remain unpaid. There is special provisions for women farmers in national schemes: 1. National Mission on Agricultural Extension & Technology (NMAET)- a) ATMA -Support for Women Food Security Groups b) ACABC- Back ended composite subsidy c) Mass Media Support to Agricultural Extension-outreach to women 2. Mission for Integrated Development of Horticulture (MIDH)- special coverage to weaker section 3. National Mission on Oilseeds & Oil Palm (NMOOP)- promoting

women groups 4. Integrated Scheme for Agricultural Marketing (ISAM)-storage infrastructure projects 5. National Food Security Mission (NFSM)-30 per cent allocation to women beneficiaries 6. National Mission for Sustainable Agriculture (NMSA) 7. Sub-Mission on Agricultural Mechanization (SMAM)-training programmes.

Way forward

Provision of credit without collateral under the micro-finance initiative of the National Bank for Agriculture and Rural Development should be encouraged. Women -centric strategies and dedicated fund for women farmers in government schemes. Jharkhand government initiative of registering land in name of women for rupee one. Document best practices of addressing gender and equity issues in the Agriculture and allied programmes. Involve women in organizations for empowerment processes, reward the gender sensitive taluk/district.

Extension strategies enhancing farm women

i) Training and skills imparted to farm women ii) Employment of women in aspects of agricultural extension service iii) Organize women into functional groups iv) Gender sensitive extension approaches v) Development of new extension training materials.

Research studies

Goudappa *et al.*, (2012) found that a large percentage of the farm women participated in the decision-making process at awareness and initiating solutions for problems revealed that the agricultural operations viz., hand weeding (80.00%), harvesting (75.83%) and irrigation (74.16%) but the final decision making was mostly rested with the men only.

Sowjanya *et al.*, (2016) concluded that farm women's participation was maximum in cutting, picking, cleaning of grains, drying of grains, storage, processing operations and major part of cleaning of field, raising nursery for seedling, weeding, shifting production to threshing floor, winnowing, & grading operations are also done by farm women.

Conclusion

In agriculture women are farmers, workers and entrepreneurs, but almost everywhere they face more severe constraints than men in accessing productive resources, markets and services. Closing the gender gap in agriculture would produce significant gains for society by increasing agricultural productivity, reducing poverty, hunger and promoting economic growth. The persisting gender gap in access to and control of resources remains an important concern which has not only kept women in a vicious circle of low productivity but also questions about sustainable growth of the sector. The need of the hour is on how to bridge the gender gap and empower women with new knowledge and technology is a great challenge, particularly in the context of socio-economic and climate related changes.

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WELCOME

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Feminization of Agriculture: Prospectus and Challenges

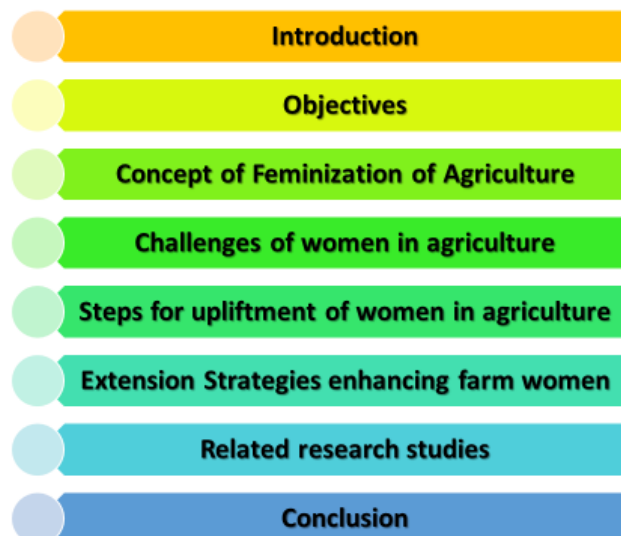




“Some historians believe that it was woman who first domesticated crop plants and thereby initiated the art and science of farming. While men went out hunting in search of food, women started gathering seeds from the native flora and began cultivating those of interest from the point of view of food, feed, fodder, fiber and fuel”

- **Swaminathan**

Flow of presentation



Introduction

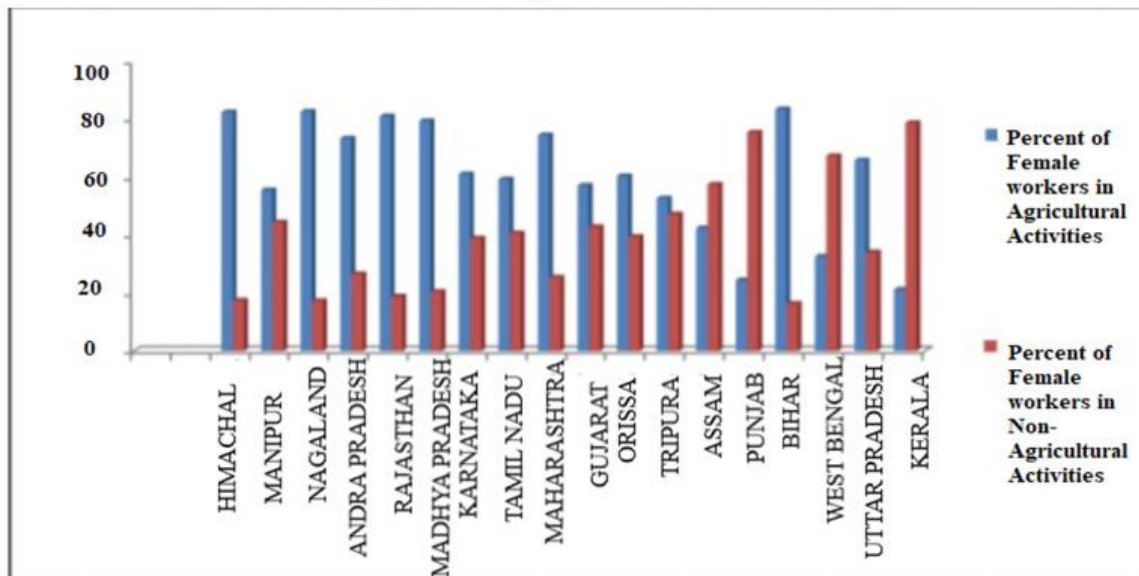
Main workers in agriculture, 1991 & 2001

(in millions)

	Cultivators			Agricultural laboures			Plantation, livestock, fishing, hunting and allied activities			All agricultural workers			% female workers
	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	
1991													
Total	110.7	88.5	22.2	74.6	46.2	28.4	6.0	4.7	1.3	191.3	139.4	52.0	27.2
Rural	107.6	85.8	21.8	70.3	43.2	27.2	4.9	3.7	1.2	182.8	132.7	50.1	27.4
urban	3.1	2.7	0.4	4.3	3.0	1.3	1.1	1.0	0.1	8.5	6.7	1.8	21.6
2001													
Total	103.6	78.3	25.4	63.5	41.1	22.4	10.3	6.7	3.6	177.4	126.0	51.4	29.0
Rural	101.3	76.4	24.9	60.5	39.1	21.4	8.7	5.4	3.3	170.6	121.0	49.6	29.1
urban	2.3	1.8	0.5	3.0	2.0	1.0	1.6	1.3	0.3	6.8	5.1	1.8	25.8

Census 2001, 1991

State-wise Women Participation in Agricultural & Non – Agricultural Activities



Analysis of Women Participation in Indian Agriculture (Mun & Arindam 2014)

Objectives



To understand the concept of feminization of Agriculture



To study the challenges , steps taken for the upliftment of women in agriculture and way forward



To review the related research studies

Concept of Feminization of Agriculture

“ A measurable increase of women’s participation in the agricultural sector”

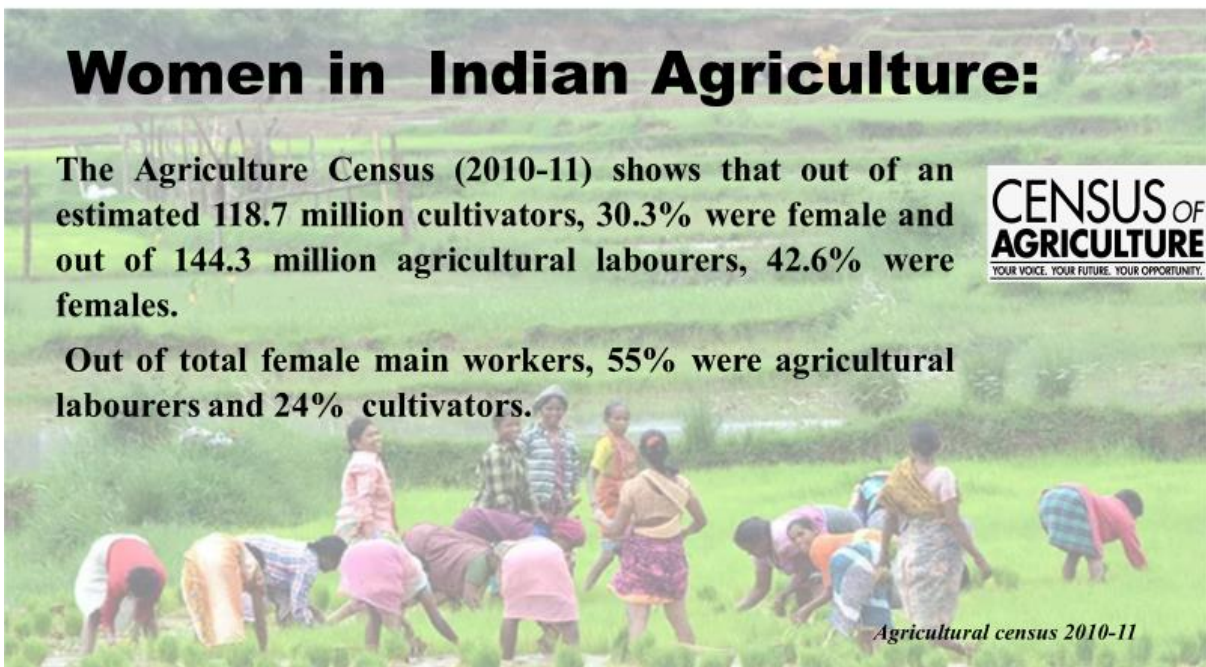
- This is either an increase in the percentage of women in the agricultural workforce within overall female workforce
- or
- It is also sometimes seen as women taking over those gendered agricultural tasks which were once done only by men

Women in Indian Agriculture:

The Agriculture Census (2010-11) shows that out of an estimated 118.7 million cultivators, 30.3% were female and out of 144.3 million agricultural labourers, 42.6% were females.

CENSUS OF AGRICULTURE
YOUR VOICE. YOUR FUTURE. YOUR OPPORTUNITY.

Out of total female main workers, 55% were agricultural labourers and 24% cultivators.



Agricultural census 2010-11

Categories of farm women

Pearson (1979)

**Independent
producers**

**Agricultural
partners**

**Agricultural
helpers**

Farm homemakers

Oct 15 is observed respectively as

**1. International day of Rural women
by the United nations**

**2. National women farmer's Day
(Rastriya Mahila Kisan Diwas) in
India**



Causes of Feminization of Indian Agriculture :

➤ Poverty



➤ Agrarian Distress and Shift of men to casual workmen



➤ Migration to Urban Areas



➤ Mobility



➤ Mechanization of agriculture



Impact of Feminization of Agriculture



Hunger reduction



Household security and nutrition

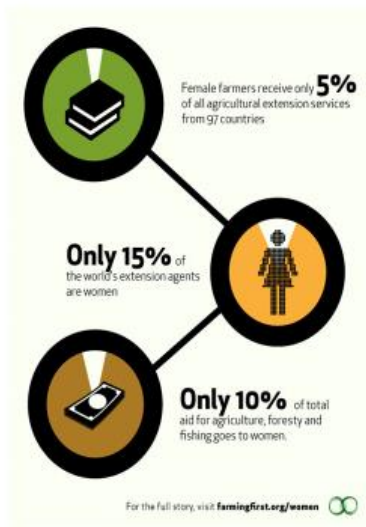


Employment opportunities



Increment in income

Gender gap in agriculture



The yield gap between men and women farmers averages around **20-30%** mostly due to differences in resource use



Given equal access to resources as men, women would achieve the same yield levels, boosting total agricultural output in developing countries by

2.5-4%



CHALLENGES

- Access to land
- Access to credit
- Access to agricultural inputs
- Access to technology
- Access to education, training and extension services
- Managing different roles
- Wage
- Marketing
- Feminization of poverty
- Violence
- Health and Occupational Hazards

Steps taken for the upliftment of women in agriculture:





भा.कृ.अनु.प. - केन्द्रीय कृषिरत महिला संस्थान, भुवनेश्वर

ICAR- CIWA

ICAR- Central Institute for Women in Agriculture

Bhubaneswar, India

ISO 9001- 2008 Certified



भारत सरकार
ICAR

Projects initiated for women in agriculture



Evaluation of interactive learning module



Reducing drudgery



Involving women in aquaculture



Management of coastal agro-eco system



Paddy parboiling unit for drudgery reduction



Groundnut decorticator



Dibblers



Nursery rearing of rohu and catla



Vegetables in nutritional gardens

NATP Project studies on.....

- **Fisher Women in Coastal Ecosystem.**
- **To empower and train women**
- **The study covered 28 villages comprising more than 6,000 fishery families in Andhra Pradesh, Karnataka, Kerala and Tamil Nadu.**





Fresh fish vending and fresh fish container

- Cost of equipment is Rs.5,600
- To store leftover fish, cut the fish, display for fish



Low cost ice cream freezer

- Cost of equipment is Rs.3,950
- No technical know-how is needed

Cafeteria for women in agriculture

Policy Framework for Agricultural extension (PFAE)

- **Cafeteria** for offering states to guide the development of new programmes for women in agriculture.

New programmes that are proposed should

- Expand their definition of agriculture beyond crop production and should be based on site specific needs assessment.
- Help women groups to successfully adopt new techniques, crops and enterprises to increase their incomes and employment opportunities
- planned with adequate resources for mobilizing women



Special provisions that empower women:

**Women Food
Groups (FSGs)**



**Self Help
Groups**



**Collective
farming**



Women Food Groups (FSGs)



Mahalaxmi Saras Exhibition in Mumbai showcased nutritious food items by women of Pathardi

Revolution in Fish Farming through Women Self Help Group- Odisha Shows the Way :

Extension material such as “training manual on Fish farming in GP tanks by WSHGs”, leaflet on better management practices (BMPs) for fish farming in GP tanks have been produced and are under distribution to nearly 50,000 members of WSHGs across the state.



“Fish Farming in Gram Panchayat Tanks by Women SHGs” -2018

Collective maize farming in tribal Odisha:

The farmers bought hybrid maize seed and fertilizer using their collected savings “corpus fund” from the Large Sized Multipurpose Cooperative Society (LAMP) of the government of Odisha

Results- production has almost doubled compared to the previous year.

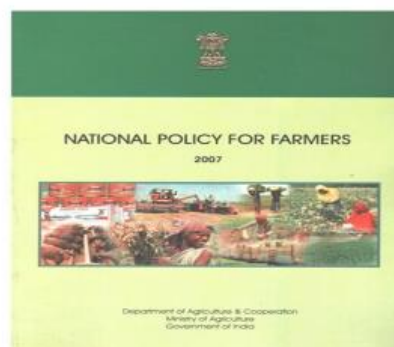


Women farmers in the tribal villages of Odisha, eastern India, are increasing their yields through the use of hybrid seed varieties, new technologies and better agriculture practices with training and support from the CSISA project and the Odisha agricultural department.

Government efforts:



National Gender Resource Centre in Agriculture (NGRCA) was setup in the DAC & FW in 2005-06 with the view of creating a women sensitization module encompassing 'Pro Woman initiatives'



Foregrounding, recognizing and mainstreaming of women's role in agriculture as encapsulated within "The National Policy on Farmers" 2007



Kisan Credit Card to Women



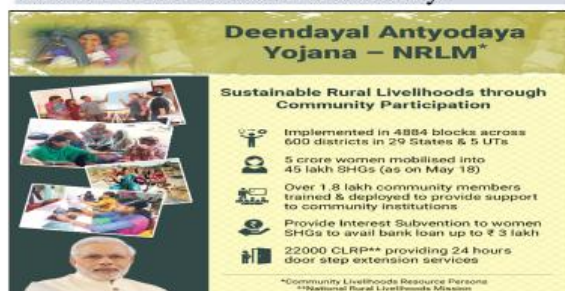
Mahila Biotech KISAN fellowships

- 30% of budget allocation for women beneficiaries in all ongoing schemes
- Preference to Women Farmer in various policies such as organic farming, self employment scheme, Pradhan Mantri Kaushal Vikas Yojana

Mahila Kisan Sashaktikaran Pariyojana (MKSP)

A sub component of the Deendayal Antodaya Yojana-NRLM (DAY-NRLM) seeks to improve the present status of women in Agriculture, and to enhance the opportunities available to empower her.

36.06 Lakh Mahila Kisans have been benefitted through **84 project** in **24 state** and union territories in the country.



Special provisions for women farmers in national schemes

• National Mission on Agricultural Extension & Technology (NMAET) – Sub-Mission on Agricultural Extension (SAME)

Agriculture Technology Management Agency (ATMA)	Support for Women Food Security Groups (FSGs)- Rs.0.10 lakh per group/year to achieve food security at the domestic/house hold level through setting up of kitchen garden, promoting off farm activities such as piggery, goat-rearing, bee-keeping etc.
Agri-Clinics & Agri-Business Centers (ACABC)	•44% Back-ended composite subsidy towards cost of project to women as compared to 36% to men
Mass Media Support to Agricultural Extension	•One day specially allocated to cover areas of core competence women farmers in programmes of All India Radio & Doordarshan

Mission for Integrated Development of Horticulture (MIDH)

Assistance for horticulture mechanization also available grower associations/ farmer groups/ Self Help Groups/Women farmer groups having at least 10 members, who are engaged in cultivation of horticultural crops.

National Mission on Oilseeds & Oil Palm (NMOOP)

Promoting Women Groups-Provision available under the Mission for involvement of Co-operative Societies, Self Help/Women Groups/FIGs/FPOs etc.

Integrated Scheme for Agricultural Marketing (ISAM)

- 33.33% Rate of Subsidy (on capital cost) for women as compared to 25% for men
- Maximum Subsidy Ceiling is Rs. 500.00 lakhs for women as compared to Rs.400.00 lakhs for men

National Food Security Mission (NFSM)

At least 30% allocation of the funds is for women farmers
Provide training based on cropping system to farmers including weaker section of women

National Mission for Sustainable Agriculture (NMSA)

At least 50% of the allocation is to be utilized for small, marginal farmers of which at least 30% are women beneficiaries/farmers

Sub-Mission on Agricultural Mechanization (SMAM)

Training Programmes on Gender friendly Equipment for Women farmers are to be conducted by Farm Machinery Training & Testing Institutes..

WOMEN ENTREPRENUSHIP

"AS WOMEN,
WE MUST STAND UP
FOR OURSELVES.
WE MUST STAND UP
FOR EACH OTHER.
WE MUST STAND UP
FOR JUSTICE FOR ALL."

MICHELLE OBAMA



"Somebody once said, educate a woman & u will educate a family. I am saying empower a woman to become an entrepreneur, & you will create an entire family of entrepreneurs. Women entrepreneurship is the need of the nation right now, it is the surest quickest way to make INDIA a super power.

Women-led farming initiatives



Gitanjali Raman, Co-Founder, Farmizen

Farmizen is currently present in Bengaluru, Hyderabad, and Surat, with about **1,500 subscribers and 24 farms across the three cities, and around 40 acres of land** under cultivation.

They want to expand to **100,000 families and generate over Rs 300 crore** in recurring revenue in two years



*Gurdev Kaur Deol, Founder,
GSHGFPO*

With hundreds of women employed, **GSHGFPO** cultivates a variety of vegetables, makes sauces and juices from the produce, and also does bee-keeping, with over **450 boxes** for the same. Purchases organic pulses and spices from other farmers which it packages and sells.

Way Forward



- Credit without collateral under the micro-finance initiative of NABARD
- **Jharkhand Govt** initiative of registering land in name of women for **rupee 1**
- Women-centric strategies and dedicated fund for women farmer in govt schemes
- Document best practices of addressing gender and equity issues in the Agriculture and allied programmes.
- Involve women organizations in empowerment processes
- Reward the Gender Sensitive Taluk/District etc.



Extension Strategies enhancing farm women

- Training and skills imparted to women
 - i) training in latest advances in agriculture
 - ii) training in leadership to motivate to play role of change agent
- Employment of women in aspects of agricultural extension services
- Organize women into functional groups
- Gender sensitive extension approaches
- Development of new extension training materials



District level Progressive women farmer

Arathi-Thumkur district

- 21.2 acres
- Paddy,ragi,small millets, watermelon ,pomegranate,papaya,sapota,mango,cucumber,
- Daily 40 liter of milk
- 8-10 lakh income yearly

Ashwathamma-Benguluru rural

- 9.5 acres
- IFS
- Polyhouse in one acre
- 10 honey bee boxes
- Rainwater harvesting system,Rearing goat,sheep,poultry

SUCCESSFUL FARM WOMEN IN AGRICULTURE





Rajkumari Devi

Kisan Chachi, which translates to 'Farmer Aunty'.

- Tips on kitchen farming
- Mobilises women to form self-help groups

Used the low-lying fields to grow paddy and wheat and used the rest of the space to grow bananas, mangoes, and papayas.

Preserving over a hundred traditional paddy varieties, along with the endangered breeds of black cumin, sesame, turmeric, maha Kanta, phula and ghanthia.

Best Farmer Award by the Odisha Government in 2004



Kamala Pujhari

S. SOWJANYA, B. K. MANJUNATH , C. K. SUDHA AND L. V. SRIKANTH
CHOUDARY

- The study was designed to explore the extent of women's participation in various agricultural activities in **Shivamogga district**
- A total of **160 rural women** were selected through proportionate random sampling and interviewed with a well-designed, pre-tested interview schedule

Participation of farm women in farm activities (n=160)

Sl.No	Farm Activities	Frequency	Percentage
1	Ploughing of field	5	3.12
2	Cleaning of field	130	81.25
3	Levelling of field	10	6.25
4	Raising nursery for seedling	80	50.00
5	Sowing	56	35.00
6	Transplanting	70	43.75
7	Manure Application	62	38.75
8	Fertilizer Application	3	1.87
9	Weeding	151	94.37
10	Thinning	95	59.37
11	Gap Filling	130	81.25
12	Plant Protection Measures	5	3.12
13	Cutting	160	100
14	Picking	160	100
15	Shifting Production to threshing floor	145	90.62
16	Threshing	120	75.00
17	Winnowing	150	93.75
18	Drying of Grains	160	100
19	Cleaning of Grains	160	100
20	Grading	150	93.75
21	Storage	160	100
22	Marketing	10	6.25
23	Processing	160	100

Recommendation of the study

- Female extension wing should be established at district level to train and provide services to rural women
- Women training centers should be established at district level whose responsibility to conduct training for rural women on different agricultural activities

2.Participation of Farm Women in Decision-Making Process on Agricultural Operations in Yadgir District of Karnataka

S.B. Goudappa , S. Surekha and B.S. Reddy

- The study was carried out in Shahapur taluk of Yadgri district in Karnataka
- A purposive sample of 120 farm women were selected from four villages i.e., 30 farm women form each village by following random sampling procedures.

Performance of farm women on selected agricultural operations (n = 120)

Agricultural operations	Performance of agricultural operations by					
	Women alone		Men alone		Jointly by Women & Men	
	No.	%	No.	%	No.	%
<i>Pre-Harvest Operations</i>						
Land preparation						
Ploughing & harrowing	-	-	120	100.00	-	-
Stubble collection	108	90	-	-	12	10
Preparations of seed bed	18	15	70	58.33	32	26.66
<i>Sowing</i>						
Sowing with seed bowl	82	68.33	38	31.67	120	100.00
Dibbling of seeds	96	80.00	03	05.50	21	17.50
Transplanting of seedling	68	56.66	52	43.33	-	-
Application of fertilizer	16	13.33	82	68.33	28	23.33
Irrigation	68	56.66	52	43.33	-	-
Application of pesticides	48	40.00	38	31.66	34	28.34
Hand weeding	120	100.00	-	-	-	-
Scaring for birds and others animals	56	46.66	31	25.83	33	27.50
$\chi^2_r = 74.6^*$						
<i>Post-Harvest Operations</i>						
Harvesting	89	74.16	31	25.83	-	-
Processing of grains	110	91.66	-	-	10	08.33
Threshing of activities	84	70.00	26	21.66	10	08.33
Grading of quality seeds	107	89.17	-	-	13	10.83
Storage of food grains	81	67.50	16	13.33	23	19.16
Keeping accounts	56	46.66	64	53.33	-	-
$\chi^2_r = 72.9^*$						

Participation of farm women in Decision making process related to selected agricultural operations (n = 120)

Agricultural operations	Stages of Decision Making process					
	Awareness and initiating solutions for problems		Finding out alternative suggestions by considering		Finalization of Decisions on farm merits & demerits activities	
Land preparation	81	67.50	19	15.83	10	08.33
Sowing	77	64.16	30	25.00	13	10.83
Irrigation	89	74.16	26	21.66	05	04.16
Application of fertilizers	81	67.50	23	19.16	16	13.33
Application of pesticides	64	53.34	34	28.33	22	18.33
Hand weeding	96	80.00	16	13.33	08	06.66
Transplanting of seedlings	55	45.83	51	42.50	14	06.66
Harvesting	91	75.83	20	16.68	09	07.50
Grading	46	38.34	64	53.33	10	08.33
Storage of food grains	42	35.33	57	47.50	21	06.66
Selling and buying the land and equipment	86	71.67	28	23.33	06	05.00
Keeping account	36	38.33	59	49.16	53	44.60

Extent of involvement of farm women in the decision-making process of the selected agricultural operations (n = 120)

Agricultural operations	Extent of Rural Women Involvement in Decision Making Process					
	Low		Medium		High	
	No.	%	No.	%	No.	%
Land preparation	10	08.33	19	15.83	91	75.83
Sowing	13	10.83	30	25.00	77	64.16
Irrigation	05	04.16	26	21.66	89	74.16
Application of fertilizers	16	13.33	23	19.16	81	67.50
Application of pesticides	22	18.33	23	19.16	81	67.50
Hand weeding	08	18.33	46	38.33	66	55.00
Transplanting of seedlings	14	06.66	51	42.50	55	45.83
Harvesting	21	11.66	51	42.50	49	40.83
Grading	08	17.50	64	53.33	36	38.33
Storage of food grains	21	06.66	57	47.50	42	35.33
Selling and buying the land and equipment	14	17.50	60	50.00	36	38.33
Keeping account	08	11.66	59	49.16	53	44.60

Recommendation of the study

- Develop self-confidence, sense of equity and elevate status in the decision making process need to organize capacity building process for farm women in agro based enterprises and handicrafts





THANK YOU

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