

# Issues and Challenges for Participation of Women in Sustainable Farming and Food Production: A Study of South Asian Countries

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## Abstract

*The participation of women in the process of food production is very significant. According to various surveys and studies, women play vital role in the agricultural process, beginning from the collection of seeds to the production of crops and finally preserving the same for the next agricultural cycle. The indigenous knowledge of women farmers is quite sustainable and environment friendly that made women in contributing around 70 percent in the farm related works. However, the introduction of modern industrial agricultural mechanism aims only at profit maximisation. As a result, the active participation of women in farming has been gradually devalued. Lack of resources and poor knowledge about new agricultural policies has badly affected the financial independency of women. Again, it has also underestimated a sustainable practice in farming which has resulted a crisis in environment. The paper attempts to examine the interrelationship between women, farming and production of nutritious food. The paper also reflects on the relationship between women's eco- friendly expertise, sustainable agriculture and food production based on case studies from South Asian countries such as India, Pakistan, Bangladesh, Sri Lanka and Nepal.*

**Keywords:** *Women, Farming, Production of food, Sustainable practice, Biodiversity*

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## **Introduction**

The contemporary world has sufficient food to feed everyone. However, about 854 million people throughout the world, most particularly in the developing countries are still malnourished (FAO, 2006). The insecurity in terms of food is the cause of poverty, not the availability of food. Developments in farming efficiency are essential not only to upsurge rural domestic incomes, but also enable equitable access to food and safeguard food security (FAO, 2009). Various studies indicate that the reduction of poverty and security of food not essentially move in cycle. The key problem is absence of financial, social and physical availability of food at nationwide and domestic levels and insufficient nutrition or called as a hidden hunger. Security of food does not only need a satisfactory stock of food but also involves access, availability and consumption by all genders across ages, society and socio-economic points (FAO, 2009; Karolina and Małgorzata, 2020).

Studies indicate that gender equality in agriculture is highly desirable for multiple social and economic benefits. Firstly, it is required because of monetary motives and from the perspective of effectiveness since gender discrimination is very much perceptible in access to land and control over other properties, which has led to the decline a sustainable and comprehensive growth of the sector. Secondly, equality issues are also connected to gender differences in consequences. The gender inequality that arose from the societal framework between women and men, disturb the resource distribution amid them and create various disorders in developmental goals in the society. This hampers agrarian growth and non-accomplishment of the Sustainable Development Goals. Thirdly, gender disparity in role performance in farming sector further disturb food safety and also affect domestic welfare, which is serious indicators of social development. Lastly, but not the least, equality in

gender is an important and basic right of every human, which has a value in itself (FAO, 2009; Agarwal, 2015; Shiva, 2018).

In every culture, women are considered as the prime food makers because of their huge contribution and participation in the agricultural economy. Apart from agricultural works, women also engage in all types of food related tasks at home like cleaning of animals at home, preparation of food at home, engaging in the process of local trading to selling of forest substitutes, preservation of seeds (Doss and Raney, 2011; Elbehri *et al.*, 2011)

‘Women play dynamic roles as processors, traders, manual workers, businesspersons, despite facing countless obstacles in comparison to the male counter parts in assessing market. However, in the design and implementation plans of various developmental policies and projects, men are mainly projected as prime beneficiaries as famers and rural workers and thus, leading to gender disparity’ (World Bank, 2007). Research papers points out that production from agriculture primarily hinge on natural resources like water, land, soil and plant genetic resources. Women has in-depth understanding of local biodiversity and also develop unique perspective about agriculture than men and therefore, they can be effective partners for breeding plants as they put up more efforts to develop adapted and improved varieties. In Rwanda, female farmers have been found more effective than their male counterpart in selection of improved varieties for local cultivation’ (Sperling and Berkowitz, 1994).

The gender-based disparities throughout the food-production chain ‘from farm to plate’ hinder the accomplishment of food and nutritive safety. Exploiting the effect of agronomic growth on food safety involves enhancing the roles of women as farming producers including the main custodians of the families. Throughout the globe, vivacious input of the rural women to the biodiversity management, agrarian production, and family food-security have been ignored,

misunderstood or undervalued (Howard, 2003). In this regard, there is immense need to examine the contribution of women in sustainable farming, food production. It is necessary to find out different ways and means of their maximum participation, which will proactively contribute to achieve sustainable development goals by 2030 and sustainable food production cycle.

The paper attempts to examine the interrelationship between women, farming and production of nutritious food. The paper also reflects on the relationship between women's eco- friendly expertise in sustainable agriculture based on case studies from South Asian countries such as India, Pakistan, Nepal, Bangladesh and Sri Lanka.

### **Materials and methods**

This paper tries to explore various issues and challenges of women in agriculture in various South Asian countries particularly India, Pakistan, Sri Lanka and Bangladesh from various literature and policy documents from various international organisation like World Bank, Food and Agricultural Organisation (FAO). Sources from various national agencies and literature are also explored between the time period of last 10 years.

Gender analysis as a tool is being used to identify the gendered perspective of participation of women vs men in agriculture, food production and further it reflects on how the outcome of agriculture and food production cycle meets different social and economic needs of women, men, girls and women.

### **Results and discussion**

In this section, the inter-relationship between women's expertise on agriculture and their contribution in food production are discussed. Further, the practices in various south Asian countries are discussed.

***Linkage between women, farming and food production***

The application of modern science and technology in agriculture is purely patriarchal in nature that aimed at profit maximisation. Women farmers in India often have limited access to modern agricultural technology due to financial constraints and cultural norms that restrict their mobility and participation in decision-making. Further, dissemination of knowledge with regard to use of technologies are also often gendered which indicates that knowledge disseminated to men tend to remain with the social networks among men (Magnan, et al., 2015 and Khan, et al, 2018). In many parts of the world, women accomplish most of the agricultural related work, and sometimes, they are the sole operators of a family agricultural farm, yet land tenure rules often exclude them. As a result, these women do not have access and entitlement to land, leading to marginalisation, lack of income or inadequate access to bank credit (Ellis, 2000; FAO, 2002). Furthermore, the production in farming has ignored the sustainable knowledge of women by replacing and ignoring the dimension of diversities. Maximum numbers of the farmers in the world are women who are uninterruptedly screening their strength in various nature of work in food production from farm field to the kitchen. Still, they are subjugated by the agriculture influenced modernity and technology. As farming is industrialised, there was much emphasis on ample use of fertilizer and pesticides and also increased level of mechanisation at the cost of environmental, food safety and quality as well as human health. This has also resulted in massive deforestation, degradation and depletion of soil and also water scarcities, compromising the need of producing agricultural cultivation and food sustainably. This disrupts the connection among nature, farming and food (Gomiero, 2016; FAO, 2017; Mohapatra and Sarangi, 2020).

Women, particularly living in rural areas have rich knowledge of natural resources, such as land, water and forests, as they are often in the responsibility of their management, not only in the capacity of farmers, foresters and its protector but also as primary providers of water, food and energy at the household and community level (FAO, 2020). These are visible in the manner as they plant seeds, sow crops and the way these women process food. Women usually attempts to use these extra types of plant variabilities, both cultivated and un-cultivated, then any agrarian professional identify about it. However, unfortunately, these women farmers are not being recognised as potential food producers and biodiversity expert due to various discriminatory sociocultural norms and these limits their potential and capacity to earn the full benefits of their work. This has led to badly affect food and nutritional values and the low-income families particularly in rural areas suffer most (FAO, 2020; Mohapatra and Sarangi, 2020)

Markets and the demand for agricultural products are changing in rapid manner especially in case of higher-value commodities. Such variations may generate opportunities for bigger participation of market both for men and women. However, in practice equal access to the marketplaces is still restricted for women. Women belong to rural areas are more likely than men to carry jobs which are lowly waged, part-time and more of seasonal employment, lack of legal or social protection, and they would be paid less although they are likely to be more educationally qualified than men (FAO, 2020). Other major factors like drastic changes in environment leading to degradation of soil, distressing supply of water and extended drought, will worsen the situation of small and marginal farmers, particularly, women farmers and also decline in overall agricultural production, with resultant economic, political, and social disruption of marginalised communities (Ajilogba and Walker, 2021; Rashid and Mirza,2022).

Land is considered as the very vital economic asset. However, the gender gap is very much evident in case of land holding. Data points out that women still hold less than 15 percent of agricultural land compared to men in the world. In India, land ownership among women has historically been low, with patriarchal norms and practices often restricting women's access to and control over land. As per the data from the National Family Health Survey (NFHS) conducted in 2015-2016, only about 13 percent of rural women and 10 percent of urban women own land in India. However, the Indian government has taken several steps to address this issue. For instance, the Hindu Succession (Amendment) Act, 2005, gives daughters equal rights as sons in inheriting ancestral property (Rao, 2017). Despite provision of different measures, challenges still remain in ensuring women's access to and control over land in India. Implementation of laws and policies is often weak, and patriarchal attitudes and practices continue to limit women's agency in this regard. In Pakistan, land ownership among women has been a challenging issue due to a number of cultural, social, and legal factors. In Pakistan, patriarchal norms and values are deeply entrenched, and women are often viewed as inferior to men. This has resulted in a culture where women are often excluded from decision-making processes and denied equal rights, including the right to own land. There are also legal barriers to women's land ownership in Pakistan. For example, under Islamic law, a woman's share of inheritance is often less than that of a man, which means that women may not receive an equal share of the family's land when it is divided among heirs. Moreover, women often face difficulties in accessing and registering land due to complex legal procedures, lack of awareness of their legal rights, and limited access to legal services (Ali et. al. 2022). Land ownership among women in Bangladesh is also a challenging issue due to a range of factors, including cultural norms, legal barriers, and economic constraints. Traditionally, land ownership in Bangladesh has been passed down through male family members, leaving women

with limited access to land. Additionally, women's lack of education and economic opportunities can make it challenging for them to acquire land or assert their property rights.

The legal framework in Bangladesh also poses challenges for women's land ownership. For example, the Muslim Personal Law governs inheritance for Muslims in Bangladesh, and under this law, women generally receive half the share of property compared to men. Furthermore, women often lack awareness of their legal rights or face discrimination in the legal system when trying to assert their rights (Ali, 2020).

Disparities are also very much evident in case of various kinds agricultural support services such as extension, financial or business development (FAO, 2020). Such compromise in access to land takes women to think towards sub-optimal choices with regard to choices of crops and also in obtaining lower harvests. Uncertainty of land tenure for women farmers also results in lesser investment and possible ecological dilapidation; it affects the land production in future leading to adversely effect on stability and availability of food leading to food and nutritional insecurity (Mohapatra and Sarangi, 2020; Ajilogba and Walker, 2021).

The ecofeminists claims that both devaluation of women and nature go hand in hand with acts of colonization and development degraded by the patriarchal monopoly of industrial agriculture and any harm to nature harms women equally, since women are seen as closer to nature than men. According to ecofeminists, men see 'nature' as a resource that can be used to earn extreme profit, on the other hand women see 'nature' as somewhat that gratify the everyday needs which should not be ruined. There has been crisis in ecosystem due to neglect of the 'interrelated material sources of dominance based on economic advantage and political power as well as the gendered division of labour and inadequate distribution of opportunity'



(Agarwal, 1992). The separation of human beings from nature has led human beings to separate from human being themselves and thus, it has resulted in creation of a big gap of haves and have nots. Vandana Shiva states this as ‘separation is violence’ that licenses few individuals to envision that they are the lone controllers on the earth and consume the abilities to master, twist and redesign the nature as well as the below advantaged sections just the way they want (Shiva, 2018).

***Case studies of women’s participation from South Asian countries***

The state of food security and nutritional status in Asia and the Pacific, particularly in South Asia is very grim. Estimates show that about ‘386.8 million population in South Asia experience severe food insecurity and 849.8 million people experience moderate to severe food insecurity’ (FAO and UNICEF, 2021). This constitutes for 82 percent of the severely food insecure, and 71 percent of those suffering moderate to severe food insecurity in Asia. This also shows a significant degree of gender gap in food security as well. While between 2017 and 2019, food insecurity among women in South Asia was at 34.2 percent, it was 29.8 percent among men in South Asia (FAO and UNICEF, 2021). This calls for paradigm shift in policy and implementation mechanism in agriculture for more productive participation of women in agriculture so that food safety and quality is guaranteed for children and families in future. Agriculture is the single largest employment sector for women belonging to South Asian countries, with 69 percent of the women employed in this sector, which is varying across countries. Due to out-migration of male members, the women take on a larger role in agriculture, which is more evident in South Asia, particularly in Nepal and India. This phenomenon is described as the ‘feminisation of agriculture’ (Manjula, 2021).

The farm works include production of crops, cattle care, food production, engaging in trading and selling tasks, preparation and preservation of food, collection and preservation of seeds and above all household maintenance. ‘Studies reveal that in rural parts of India, the percentage of women who are dependent on agriculture for maintaining their livelihood is as high as 84 percent. Women constitute about 33 percent of total cultivators and about 47 percent of them are agricultural labourers’ (Krishna Rao, 2006). The indigenous principle of making food is based on the near associations between the pet animals, environment and crops, also how women labour to uphold these links. Agricultural production solely based on nature and more particularly proactive participation of women with such mechanism of agricultural production has been found to be more sustainable because the mechanism of internally recycled resources has the potential to provide the appropriate seeds, soil moisture, soil nutrients and pest control (Shiva, 2018). Essentially, Third-world women farmers are measured as the insignificant agriculturalists who propose the source of food -security and furthermore, the women perform it through a collaboration with additional pet -animals.

Alfred Howard, the famous botanist and agriculturalist of London, had done his research work in Indian traditional style of organic farming and advocated for the sustainable agriculture found in India. In his seminal works, *An Agricultural Testament* he mentioned the most necessary natural way of producing food from farming lands of South Asian countries and named it as the best practice of agriculture (Howard, 1940). The traditional knowledge of women in keeping balance within live-stocks and crops was the finest method to preserve the sequence of food as well as keeping the biological substance to the soil. The method of cultivating mixed crops in farming, especially in India, has been proven as one of the finest ways of crop production that help in keeping a balance in diet. ‘Women’s productive work on the farm has therefore been crucial to sustainable

food production' (Shiva, 2014). Women have continuously played a significant character in sustainable farming by enduring the fertility of the soil, by upholding balanced-diet over mixed crop agriculture and also over caring equal company between nature and the food. The peasant women of India have carefully maintained the generic base of food production over thousands of years. This common wealth, which had evolved over millennia, was defined as 'primitive cultivar' by the masculinist view of seeds, which saw its own new products as 'advanced verities' (Shiva, 2014). Fourthly, as women participated less in farming, the rate of malnutrition increase, where women from the marginalised sections are targeted. Therefore, the displacement of women's traditional knowledge from farm field, not only shaped an environmental crisis, but also it formed a large range of world hunger which may be unseen but the after consequences are bigger.

The agricultural system in Pakistan is essentially labour intensive where women make vital contribution. Despite of the vigorous involvement in the agrarian economy, women have fewer access to properties, facilities and chances comparing to male farmers like other South Asian countries. Such gender gap mainly found in various domains of farming such as availability of fertilised seeds, manures and modern farming equipment all essential elements, ownership on land, cattle, skill, teaching, allowance and monetary services. Women in Pakistan are responsible for various agricultural activities, even those work that were earlier controlled by men. Research points out that a woman in rural areas of Pakistan spends an average of 15.5 hours per day in agriculture and agriculture related work, including 5.5 hours of work in caring for livestock, and she has only 50 minutes of time a day to devote caring for her own children (IFAD,2020).

Azar-Hewitt in his in-depth study on agriculture in the Hushe Valley of the Karakorum mountains at the north region of Pakistan discussed

that as men have shifted to the metropolises for jobs, the women in these areas have engaged themselves on the challenging mission of herding the animals at a higher altitude region. Even women have taken over other related tasks of farming, but their share of resources are still unequal and they live with subordinate position in the society who are controlled by the patriarch (Azhar-Hewitt, 1999). Despite of the equal contribution in agriculture, women's contribution has been devalued, underrated and neglected (Flintan, 2010).

Women are contributing as active labourer not only in the agricultural fields but they also accomplish various kind of activities which contributes in better productivity in agriculture such as food storage, grain cleaning, livestock and cottage industry (Ahmed, 2018; Ahmad, 2020). It is reported that women in rural Pakistan are not only performing various household activities but they are also responsible various activities that directly and indirectly contribute to increase in household economy by active involvement in various sub-sectors of agriculture such as crop production, livestock and cotton industry (Dawn, 2003). Women in rural Pakistan are primarily responsible for livestock industry activities. Livestock activities found to be the second largest sub-sector that account for 52.2 percent of total agriculture sector, which 11 percent to total GDP of Pakistan. This affects the lives of 30-35 million population of rural areas in Pakistan (Khan, 2008; Begum and Yasmeen, 2011)

Butt *et al.* (2010) discussed that as women in rural areas of Pakistan are actively engaged in agricultural activities, thus, it necessitates that the latest knowledge associated with crop production and other allied activities be provided to them. Jamali (2009) commented that women are not only actively involved in farm activities but they are also much more involved in livestock activities and its associated chores to supplement her income by offering cattle for ploughing and harvesting work. Studies point out that by selling of animals, these

women earn extra income. These women are also involved in poultry farm activities. These two activities are major sources of contribution of Pakistani women to the household income (Begum and Yasmeen, 2011; Rehman *et al.*, 2017).

A survey has been done on Women farmers in Sri Lanka who played an important role in bringing diversity in food and nutrition through applying the traditional knowledge of resources generated from forest. The home or house garden established by women are best defined as ‘genetic gardens.’ (MSRF and FAO, 1999). Women have contributed significantly in the genetic upgrading of crop -plants and some other plants which are economically satisfactory through a continuous process of selection. Women have also been accountable for controlling food production and growing medicinal plants which are now seen in each home garden (MSRF and FAO, 1999).

In many regions of Bangladesh, agriculture is the major engagement for women. Throughout centuries, many tribal groups, such as Santal Garo and Chakma have been working as agricultural labour force. The similar kind of engagement is also found for many women belonging to Muslim and Hindus communities (Zaman, 2002). The share of women is over 50 percent of the total farm labour force in Bangladesh, which is much higher participation compared to 30 percent in India and Pakistan. Since most of the women are small and marginal farm labourer, they are often not able to get benefit from agricultural extension programme of government. The women workers in the agricultural sector have improved by over 4.5 million in 2015-16 from 3.7 million in 2005-06. The active participation of women is noticeable in different kind of work such as spraying of ash as fertiliser, jhoom cultivation on hills and using different kinds of organic materials on soil. The contribution of women in crop production is about 27 percent. Estimates shows that Women participate in 17 of the 21 stages in crop production cycle. Study

reveals that proliferation of vegetable cultivation mostly by women helped to improve vegetable production five-folds during the previous few decades. Women were to play a major role in the expansion of horticulture and gardening in Bangladesh. They are also eco-friendly and contribute a very supportive role in activities like deforestation, land conservation and preservation of bio-diversity. Womenfolk are found to be more effective than men in case of harvesting of vegetables (Rahman *et al.*, 2020).

In a survey, it has been seen that woman in Nepal are using emerging strategies in sharing asset, with group exchangeable plans and SHGs or self-help groups in order to avoid lenders from private organisation and not to get help keeping a higher rate of interest. ‘Many have also expressed interest in adopting labour-reducing technologies, multi-cropping strategies and adopting more marketable, drought-resistant crops, but typically women lack access to the necessary financial and technical resources’ (Mitchell *et al.*, 2007).

## **Conclusion**

The growing food crisis over the world and South Asian countries is the result of the patriarchal mindset coupled with industrial farming mechanism and this has been largely opposed by the women from every sector in order to save the nutrition of food for the survival instinct. The agricultural sector is male-dominated, and women farmers often face discrimination and exclusion from decision-making processes. This lack of representation and voice in the agricultural sector makes it difficult for women to advocate for their needs and interests. Women farmers often have multiple responsibilities, including caring for children and the elderly, cooking, cleaning, and other household duties. The time constraints imposed by these responsibilities make it challenging for women to devote the time and energy needed to learn and adopt new agricultural technologies. Human being is an integral part of diversity and the

food safety can only be preserved if it is reclaimed, designed and controlled by the female- farmers, eventually safeguarding the nutrition value of food.

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