

GENDER AND SUSTAINABLE AGRICULTURE: ISSUES AND CHALLENGES

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Women play a major role in household and community survival strategies in rural areas of almost all developing countries, thereby contributing significantly to the rural economy. While women have always played a key role in agricultural production, their importance both as workers and as managers of farms has been growing, as an increasing number of men move to urban areas. Presently 53% of all male workers but 75% of all female workers, and 85% of all rural female workers, are in agriculture. Women constitute 40% of the agricultural work force and this percentage is rising. An estimated 20 percent of rural households are female headed, due to widowhood, desertion, or male out-migration.

World over gender determines power and resources for male and female. Despite technological and human development, female power and resources are not translated into gender equality and that is why it is lowest in rural heartland of the developing world. Rural women make up for the majority of the world's poor population and the female headed households are among them the poorest. This not only impedes progress in agriculture but also threatens food security. While women make essential contributions to agricultural development they continue to suffer specific constraints that disadvantage them in relation to men. The constraints are mainly socio-cultural and create a vicious circle of women's subordination and gender division of labour like lack of freedom, restricted mobility, structural impediments, reduced socio-cultural space etc. Men's migration to urban areas to participate in monetary economy burden the women at home for taking care of land besides domestic responsibilities but the decision making process is still not in their purview.

The majority of farmers in India are either marginal or small farmers of whom women dominate. Over 60% households own less than one hectare. Farmers owning over one hectare constitute around 28% of rural families. Hence, the state must initiate processes that will empower farmers - men and women - with resource entitlement, support infrastructure and knowledge base that will allow them to make sustainable choices. Due to the social norms reinforced by the state, markets, family and community, women find it impossible to transcend from subsistence agriculture to more market-based agriculture due to practical constraints. This paper is an attempt to outline the 'complex' nature of gender marginalization in agriculture with globalization and tries to explore how sustainable development can be achieved through gender equitable women participation.

The challenge before the world today is to provide food for all Agricultural sector in India needs to be reinforced with latest and sustainable agricultural techniques to attain sustainable production. It is estimated that the Indian population will grow 1.4 billion in 2025 needing 380 MT of food and 1.7 billion in 2050 needing 480 MT of food on the pre existing land ie 146 million ha. To meet rising demand sustainability is to be maintained (Yadav et al 2000). To enhance production and maintain sustainability in agriculture focus must be on decreased chemical use, considering world as a global village, concern for nature, family and community self-reliance (D'Souze 1998). Sustainability integrates three goals - environmental health, economic profitability, social and economic equity (Malkina-pykh and Pykh 2003). The role of women in management of sustainable agriculture, adoption of new technologies and assessment of training programme which help in

improving agricultural productivity and production and maintaining the sustainability in the farming system is most important. The paper analyses the adoption of sustainable agricultural practices by the women farmers and studies the impact of training programs on adoption of sustainable agriculture.

STATEMENT OF PROBLEM

Post 1990s there have been massive economic, political and environmental changes, which have affected the roles played by different stakeholders in agricultural and rural development (fisheries, livestock and forestry). During the 1980s and 1990s, there was a worldview that liberalization and global trade would enhance development and create wealth for the vast majority. As a result, governments, encouraged by the international regime, reduced their investments in agriculture and withdrew from many rural areas, leaving private sector and producer organizations to coordinate various activities. However the recent past since the 2007/08 food crisis – have shown that the anticipated gains from agricultural liberalization have failed to bring about poverty alleviation. As the international Community places greater importance on food security, sustainable development and climate change, producer organizations are being recognized as key to success. This has shifted the focus on greater attention on staple and other food value chains, where small scale producers which largely women, are more active. This focus on the role of small-scale producers and their organizations raises many issues (Murphy, 2010). Many producer organizations face difficulties in assuming their primary role, that is to respond to increasingly competitive and unstable markets. Due to the traditional top-down approach to development, a more participatory and needs-based approach to economic self-empowerment is postponed. They face bottlenecks such as the lack of efficient management and organizational structure, the paucity of good governance systems, and insufficient technical and capital inputs to meet quality standards.

Women producers, who are often excluded or have their participation restrained in organizations, face additional challenges, such as cultural and legal discrimination, which prevent them from accessing productive assets, finance, education and technology. Establishing their own organizations or participating in integrated organizations can help them overcome various constraints, enhance their economic and social power and improve access to needed services. While women constitute the majority of producers, they still are concentrated in the least profitable stages of the value chain. Path breaking institutional and operational mechanisms and business models should be developed to enable small-scale producers, especially women, to seize market opportunities along agricultural value chains, while considering issues of gender-based power inequalities and access to options and resources. This paper attempts at highlighting various issues related to women producer organizations from India to focus on their potential role in the development of staple food value chains.

GENDER EQUALITY AND ITS ROLE IN SUSTAINABLE AGRICULTURE

People working in agricultural production constitute a diverse group, varying by gender, age and/or ethnic origin. However their access to resources, such as land, loans, resources and markets, varies drastically from one group to another. While women constitute an average of 40 per cent of the agricultural workforce in developing countries and thus play a key role in providing their families with food and their households with a livelihood their status maintains a status quo. Agriculture is becoming increasingly feminised due to wars, disease, death from HIV/AIDS, and emigration by male family members. More women are assuming roles that were originally considered masculine and taking charge of agricultural production and livestock farming. Yet women in many countries are prevented from having access to and control over land and cattle due to socio-cultural factors or by law. Similar trends exist as far as women's access to

services, resources, agricultural advice, innovation and marketing. Women are also under-represented in rural organisations and institutions in many regions, and have a lower level of education and less information than males. This pulls back women from having an equal say in decision-making processes within rural organisations and from molding policies and strategies at the municipal level. Bridging this gender gap could raise agricultural production by between 20 per cent to 30 per cent and reduce the number of starving people around the globe by between 12 per cent and 17 per cent . It is therefore imperative for all groups to have an equal share in development for agriculture to be economically, ecologically and socially sustainable. This approach is the ideal one for the rural population to reach its full economic potential and for food security to be achieved.

The world's population is likely to reach 9 billion by the middle of twenty first century. The Food and Agriculture Organization of the United Nations (FAO) believes that 60 per cent more food will be needed by 2050 to sustain all these people. Developing countries will have to increase their production substantially which will have major implications for the limited natural resources on which farming depends, like water for irrigation , livestock farming, land for growing crops and grazing, and nutrients, like phosphate. In many areas, soil has undergone massive damage while water resources are often overused or polluted by fertilisers and pesticides (Edwards CA 1988). Agricultural biodiversity has declined as farming has become industrialised. This negative impact has led to deterioration in the climate, human health, and global ecosystems. A valid question that arises here is ,how can we ensure future agricultural production so that we guarantee food security for the world's teeming millions without destroying the resource base? The answer lies in sustainable agriculture that conserves resources. Growth cannot be at the cost of natural resources and must be made as independent as possible of consumption of natural resources.

FEATURES OF SUSTAINABLE AGRICULTURE

Sustainable Agriculture can be described as an agricultural system based on the following –

- An emphasis on methods and processes that improve soil productivity while eradicating harmful effects on the climate, soil, water, air, biodiversity and human health.
- Minimise the use of inputs from non-renewable sources and petroleum-based resources and replace them with those from replenishable resources.
- Focuses on local community and its needs, knowledge, skills, socio-cultural values and institutional structures.
- Ensures that the basic nutritional requirements of present and future generations are met both quantitatively and qualitatively.
- Provides long-term employment, income and dignified and equitable working and living conditions for everyone involved in agricultural value chains.
- Reduces the agricultural sector's vulnerability to climate changes, socio-economic factors (e.g. strong price fluctuations) ..
- Promotes sustainable rural institutions that encourage the participation of all shareholders and facilitate the reconciliation of interests.

WAYS TO PROMOTE SUSTAINABLE AGRICULTURE

Through education, knowledge and agricultural advise sustainable farming can be promoted among smallholders in developing countries. However access to resources, land and water is also crucial.

Land use right issues ought to be resolved along with the much needed training for smallholders and their organizations. The state needs to include small-scale farmers in the formal credit market even if they cannot offer banks any collateral to banks. Also growth-oriented sustainable farming requires development infrastructure and access to responsive markets. Modern information and communication technologies are crucial in farming e.g. mobile phones and internet access, even in remote rural areas are increasingly being used for agricultural services like sharing market prices and providing advice, a trend that further needs expansion.

MAKING SUSTAINABILITY MEASURABLE

Response-Inducing Sustainability Evaluation (RISE) is the answer to this problem as it helps in documentation and evaluation of agricultural sustainability. This method has been developed by Switzerland's School of Agricultural, Forest and Food Sciences in Bern. RISE has been used by various organizations since 2000 to evaluate farms of different sizes. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) has been using the RISE method since 2012. It profiles a single farm operation, using interviews to collect information regarding 10 sustainability indicators, like soil use and livestock farming and then evaluating it. It advises on farming practices and evaluates Farms so that the farm manager can take immediate action to improve. It helps in developing advisory strategies. Similar strategies can be devised in India and in fact organizations like SEWA are providing such inputs to women farmers in many rural areas.

SOME GOOD PRACTICES

- a) A study was conducted during 2006-09 to find out the adoption of sustainable agricultural practices by 270 women farmers of Dharwad, Belgaum and Haveri districts of Karnataka state. Women farmers from Belgaum district led in adoption of sustainable agricultural practices followed

by Dharwad and Haveri districts. On an average 65 per cent of women farmers adopted more than one type of selected agricultural practices. Practices related to organic farming, integrated nutrient management, integrated pest management and water conservation were found positively and significantly related to training programmes undergone indicating the resultant significance of need based intensive training programmes.

The Self-employed Women's Association (SEWA) in India has successfully facilitated women's access to markets and promoting women as competitive entrepreneurs. This indicates how small-scale women farmers can play an important role in value chain development to the benefit of rural households and local, national and world economies.

b) SEWA'S AGRICULTURAL CAMPAIGN

According to the National Commission for Enterprises in the Unorganized Sector (NCEUS), 72.8 percent of women were involved in agriculture activities in India in 2007 compared with 48.9 percent of men (SEWA, 2009). However, females are not considered to be farmers and their contributions remain unrecognized. Sadly they face unequal access to information and technologies, productive assets and markets. Due to this grim reality, SEWA launched its agricultural campaign that includes interventions in diverse areas: recognition of women as farmers; access to microfinance, productive assets like seeds and fertilizers; access to technology and capacity building, and market linkages. A crucial step in this campaign was the organization of women in village-level farmers' organizations, to access credit and quality inputs as well as to increase women's bargaining power. These organizations were equipped with an equipment and tools library. SEWA village

groups identified tools and equipment they needed, pooling their savings to purchase them, and then lend that tool to individual members for a fee on a rotational basis. The agriculture campaign also gave women farmers access to future prices of agrocommodities and encouraged the farmers to organize Krishi Bazaars – farmers’ markets – locally and in Ahmedabad.

c) **SEWA’S WATER CAMPAIGN:**

Access to water is a major issue for most of SEWA’s rural members, who spend four to five hours in procuring water. The time wasted in fetching water represents significant loss of income for women and their families. The objective of the water campaign was to provide members and their families’ easy access to clean drinking water.

d) **SEWA’S MARKET PRICES ON A BOARD**

SCHEME-To facilitate access to price information on important agrocommodities, the community centre mentions current and future three months market prices on a board which is also messaged every week by sms from SEWA Ahmedabad to the village and mentioned on the board.

e) **WATER RESOURCE MOBILIZATION-**

SEWA undertook a survey at the district level among the water starved villages and worked with local water village committees to encourage women’s active participation in these committees. This was quite challenging as most water committees were run by traditional or local authorities headed by men. SEWA tried to change men’s attitudes by expanding the capacity of these committees to develop, implement and monitor action plans by creating a water community fund. It also enhanced technical and logistical skills of members to operate, improve and maintain community-based water supply systems (e.g. roof

rainwater harvesting system, traditional water sources, community ponds and wells). This resulted in the availability of water throughout the year and that too of better quality. Women saved time which could be spent on economic activities. This had a positive impact on the income and health of the women and their families. Another significant measure adopted was the creation of a network of “barefoot water technicians” – SEWA members trained as plumbers who could repair and maintain hand pumps which further facilitated constant water supply.

CONCLUSION: SOME RECOMMENDATIONS

Addressing gender issues is most crucial for ensuring inclusive growth and agricultural development. Research shows that crop yields and farm income can easily be increased by 20-30 per cent by facilitating the access of women to resources. Equally important is participation of women in household decision making to improve nutrition and overall welfare of the family. Hence women empowerment should be on high priority in any development agenda. Following policy prescriptions can go a long way in initiating change-

1. Generate, document and publicise country specific gender disaggregated data on the contribution of women, existing gender inequalities and the success of on-going development programs in addressing gender related issues.
2. Due to strong linkages between agriculture, nutrition and empowerment of women, control of women over household income needs to be facilitated to ensure nutrition, health and education of children.
3. Government investments should be gender sensitive and ensure effective participation of rural women .

4. Capacity of women community groups for creating awareness, asserting their rights, articulating their needs must be enhanced.
5. Scientific institutions must provide timely inputs to women farmers.
6. Micro-enterprises and women self-help groups ought to expand their base for production and distribution of nutrition rich foods.
7. To tackle complex issue as gender, individual efforts are meaningless. An enabling environment can be created by facilitating stakeholders, institutions, and by creating partnerships between public and private sector, civil society, grassroots organizations, and bilateral and multilateral development organizations at the regional, national and local levels.
8. Self Help Groups, (SHGs) must be provided adequate resources for entrepreneurship development, through vocational training and monetary support to support gender specific welfare associated programs.
9. The most important step that needs to be initiated is to ensure property rights for women which can be achieved through-
 - I. revision of laws on marriage and inheritance ;
 - II. working with local community to ensure secure land rights to women,
 - III. Government initiatives (e.g., China's attempt at including women's names on ownership documents or inheritance through daughters as in the Philippines); and
 - IV. enforcement of laws to ensure women's access to and control over assets. These initiatives should work alongwith building capacity and knowledge enhancement among women.
10. Today agricultural markets are prone to rapid change and women are more vulnerable because of their limited access to markets and price volatility. Global business models focus more on financial viability and often ignore gender concerns. Therefore women are unable to take advantage of new market opportunities and remain mostly as wage earners or farm workers. Hence it is imperative that women should be encouraged to become members of producers and marketing associations and use information communication technology (ICT).
11. A reorientation is needed for agricultural research to make it more gender sensitive, a reorientation of agricultural education system and to revise course curricula to make it more gender sensitive. Enrolment of girl students in agricultural universities must be increased.
12. Since climate change influences rural livelihoods and agricultural productivity management of risk and access to climate resilient agriculture technologies must have a gender perspective to ensure empowerment of farm women and to bring about an inclusive growth in agriculture.

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