

## REVIEW ARTICLE

## AGRICULTURE RESEARCH, EXTENSION AND GENDER ISSUES

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## ABSTRACT

Despite women being the backbone of agricultural development, they are typically wrongly characterized as economically inactive. Many gender issues and inequalities are still prevalent in our society, which are the true barriers to real agricultural development. The roles of woman in farming system research and extension (FSR/E) have not been included but they are the ultimate target of the approach. This paper aims to discuss different gender issues, analyse the role of gender in research and extension and compare different extension education approaches related to extension education. Different articles related to agriculture extension approaches, gender issues, and the role of rural women is peer-reviewed. There are different barriers like women's daily workload, cultural and legal status, property rights, inherent right different relationship, social contact, bias in training centres, and lack of flow of information's, etc. for gender-based research and extension system. Conventional research and extension system thought to female farmer related to the reproductive and domestic role that underestimates the productive role. Effective research and extension approaches should provide the proper space for women. Their role shouldn't be bound only to reproductive and domestic work. Extension education approaches should focus on women as a central character of effective learning. Different training programs based on women's needs and skill development should be organized and should ensure active participation of them.

## KEYWORDS

agriculture, gender issues, research, extension, woman.

### 1. INTRODUCTION

Women are the backbone of agricultural development worldwide. According to The State of Food and Agriculture, "Women comprise, on average, 43% of the agricultural labour force in developing countries, ranging from 20% in Latin America to 50% in Eastern Asia and Sub-Saharan Africa" (FAO, 2011). Reducing gender inequalities in access to productive resources and services could increase yields on women's farms by 20-30%, which could raise agricultural output in developing countries by 2.5- 4% (FAO, 2011).

Although the vast majority of rural women in developing countries are farmers and form the basis of the small-scale agricultural labour force, their contribution continues to be systematically marginalized and undervalued in conventional agricultural and economic analyses and policies, while men's contribution remains the central, often the sole, focus of attention (FAO, 1993; Huang, 1995). Women are facing particular gender-related constraints in gaining access to agricultural extension services. Agricultural extension services are geared primarily to male farmers and male-operated farms and only fewer women are reached by extension service as a whole (Olayiwole, 1984; Mijindadi, 1993; Chale, 1990; Goldey, 1987; Saito and Spurling, 1992). The delivery of extension services is conducted predominantly by males; only 15% of the world's and 7% of Africa's extension agents are females (FAO, 1993). This imbalance has created difficulties for women farmers to get access to extension services. To attend to gender in agricultural extension because gendered inequalities contribute to global hunger and food insecurity and because generally, extension services that do not have an explicit focus on

women and gender often do not recognize the important labor that women contribute to agriculture and the structural condition which includes the domestic roles that can limit the types of training available to them. Moreover, other gender-related problems such as a heavy workload and childcare responsibilities make it difficult for women to take time off to join extension-related activities and attend training due to their role and position in society. In addition, in several African, Asian, and Latin American cultures, women are not allowed to talk to male agricultural extensionists and are prohibited from leaving home alone. Many of these gender issues has made female farmer be prohibited from getting gender-equitable extension service.

To solve these gender-related issues many new projects plans and approaches are needed so that the extension service could be made available to women and the present approaches to gender-related approaches should also be reviewed clearly. The change agents also need to be well acquainted with themselves with the organizations and knowledge systems available at the local level to determine how they can improve the present scenario, rather than assuming that nothing significant can be currently done.

### 2. OBJECTIVE

Major objectives of this study are:

- To discuss different gender issues
- To analyse the role of gender in agricultural extension and research

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- To compare different extension approaches and their role in addressing the gender issue

### 3. METHODOLOGY

Several articles related to gender issues in agriculture extension, extension education approaches were peer-reviewed and discussed.

### 4. DISCUSSION

#### 4.1 Gender issues in extension

Women are typically, and wrongly, still characterized as "economically inactive" in statistical surveys of agriculture, and this result is more about survey methodology than about reality (Janelle, 1975). Based on this empirical data policymakers and administrators typically assume that men are the farmers and women play only a "supportive role" as farmers' wives (Samanta, 1994). Hence, agricultural extension services still do not give much importance to reaching women farmers or women on the farm. Therefore, there needs the examination of the perceptions of terms such as gender and their issues within the institutional framework surrounding agricultural extension delivery and to identify the factors that create barriers in the implementation of the gender-equitable extension.

The major barriers to a gender-equitable extension are:

##### i) Women's daily workloads:

There is a division of labour along gender lines. Women have pre-defined responsibilities for household tasks like cooking, washing, reproduction, taking care of children and olds along with the agricultural task. They cannot manage their free time for taking extension services and training.

##### ii) Women's legal and cultural status:

It affects the degree of control women have over productive resources, inputs such as credit, and the benefits which flow from them (Olawoye, 1989).

##### iii) Property rights and inheritance laws:

It governs access to the use of land and other natural resources (Jiggins, 1989a). Most of the farms and resources are under the name of the male head of the family. Property and land rights issues in many countries leave many of the women farmers without ownership and control over productive assets making them marginalized and dis-incentivized.

##### iv) Different relationships:

The relationship among ecological factors such as the seasonality of rainfall and availability of fuel wood, economic factors such as product market failures, and gender-determined responsibilities such as feeding the family, which trade-off basic household self-provisioning goals and care of the family against production for the market is another constrain (Jiggins, 1989b; Horenstein, 1989).

##### v) Extension delivery system:

The way that agricultural services are staffed, managed, and designed is also an issue for women not receiving extension service (FAO, 1993; Saito and Weidemann, 1990; Gittinger et al., 1990). The majority of countries' extension services have been staffed predominantly by men i.e. 85% worldwide (FAO, 1993).

Even though men farmers are more aware of and participated more in the extension activities than women farmers, many studies showed that women farmers, who are supervised by female agents have more access to extension services than women farmers who work with male agents. Specifically, women farmers, who had females for extension agents had relatively higher levels of awareness and participation of the extension activities, higher adoption of technology and technical knowledge, and satisfaction with the quality of agents' services and credibility (Mukhtar and Ogunlela, 2009).

Moreover, extension personnel are often unaware of these "gender issues". So, there's a requirement to sensitize them through training in "gender analysis" and "gender-sensitive agricultural planning" methods.

##### vi) Social contact:

Since the extension system is dominated by male staff, there is a problem in delivering information with individual women other than their relatives and female also feel fear of male extension agents, husbands, and ladies

about transgressing norms of approved social contact. It is even more difficult in true in Islamic areas where women are in partial or total seclusion.

##### vii) Bias in the training centres:

Those extension programs which provide residential training on technical subjects do not have separate washing and sleeping accommodations for men and women and do not provide facilities for the care of babies or young children. Secondly, their workload at home prevents them from even short course training near their own house. Third, they are not allowed to go out of the house for such activities and only focus on the works like home economics and craft subjects, not technical agriculture (Staudt, 1973).

##### viii) Lack of flow of information:

Traditionally men are regarded as the head of the household and are often the automatic recipient of new information. The key question 'Who is the farmer?' is seldom asked, and it is assumed that any knowledge men acquire during the training will be passed on to those within the family who carry out the task. Unfortunately, this information transfer may not necessarily happen, or that crucial information may be lost along the way, is rarely considered

##### ix) Situation of female extensionist:

The female extensionists that exist in very few numbers also face difficulties in their workplace in terms of pay or even acceptance, making the job unattractive for prospective female applicants.

#### 4.2 Gender role in research and extension

Initially, the conventional extension approach to female farmers was related to the reproductive and domestic roles that underestimated the productive role. The gender aspect wasn't recognized as a big thing about designing the agricultural development strategies used. All the main targets of extension services targeting women farmers were related to their traditionally accepted domestic roles (more on household management, nutrition, cooking, and family planning). This home ec extension program was a crucial way of reaching women farmers and will be simpler if it had been addressing the productive role of girls as well.

Agricultural extension strategies traditionally have focused on increasing the production of money crops by providing men with training, information, and access to inputs and services. This male bias is illustrated in farmer training centres, which are established to supply residential training on technical subjects. First, most of the training centres don't provide separate washing and sleeping accommodations for ladies and don't provide facilities for the care of babies or young children which may not attract women to attend training programs. Second, women's daily workloads don't usually allow them to be absent from home for residential training; even attending short courses may cause overwhelming problems in arranging substitute care for children or the home and third, even where attendance of the total, women are given instruction mainly in home management and craft subjects and not in technical agriculture.

#### 4.3 Extension approaches to solve gender issues

It is a mistake to believe that rural women in developing countries do not possess skills and techniques which are an asset to the development process. Rural women farmers deserve better recognition and a greater appreciation of their tangible contributions to agriculture rural development and food security. For this many approaches have been carried out in different parts of the world. They are:

##### i) Group approach:

The group concept is being started and expanded in several ways, as agro-industry development opens up opportunities for developing functional linkages between women's groups and centralized processing facilities.

For example, the production and processing of herbs, medicinal plants, or perfume plants organized by TATA Industries in the private sector and BAIF in the non-government sector, provide examples from India of information and training linkages between women's groups and the agroindustry. The development of women-only cooperatives in the Dairy Development Movement in south India is a notable case, but numerous other studies document the potential of this approach (Chen et al., 1986; Jamal, 1994; Berger et al., 1984).

Women-dominated and managed agro-industries, notably in poultry and

silk, based on individual effort and rewards but mobilized through group mechanisms are becoming sizeable integrated enterprises backed by women's own savings and investments. It helps to empower women financially and with better knowledge.

#### ii) Participatory Rural Appraisal (PRA):

It includes participation, digital video, and picture-processing technology to explore further the possibilities for interactive dialogue between groups of women farmers and those more removed from agricultural reality, including male extension workers.

#### iii) Changing Attitudes and Institutions

Experience has shown that complementary strategies to bring changes in attitude and behavior within institutions are also required (Posts, 1991). Gender sensitization training has been developed to initiate the task of attitude change within the male-dominated extension and research bureaucracies and donor agencies (Rao et al., 1994). Training materials and methods for gender analysis in agriculture have also been developed and are now in widespread use (Paris and Frio, 1994). Specialist material for training of trainers has also been developed and is beginning to spread through agriculture training institutes, colleges, and universities (Rao et al., 1994).

#### iv) The Farm Women's Field School

Women farmers have been included in-field training on integrated pest management (IPM) for example, since 1994, in Tamil Nadu. Of the thirty farmers' field schools (FFS) conducted in the 1994-95 rice season in Chengalpattu MGR District, for instance, four have been for women. The FFS runs one half-day a week for thirteen weeks for thirty farmers. Female agricultural officers teach them to identify the pest and predator insects in rice, to monitor the number of each to ensure that predators are keeping the pests in check and to observe the life cycles of the key insects and the fluctuations in populations through the production season. Weekly recording and analysis of the agro ecosystem form an important part of the training.

The principles and practices of organic farming integrated nutrient management, and the use of bio fertilizers are also included in the training. Cultural, mechanical, and biological pest controls are practiced, and the women participants are trained in the use of bio pesticides and chemicals as a last resort if predator populations are insufficient to keep pest numbers within economic limits.

#### v) Communication for technology transfer in agriculture (CTTA):

It is based on three principles: market research for identifying user categories and needs, participation of the user in technology development and dissemination, and strong feedback mechanisms. Women farmers and farm women in various socio-economic and spatial categories were identified explicitly as "users." The CTTA design focused on the "four Ps" of social marketing - price, product, place, and promotion - as well as on two contextual factors - policy and politics - in devising more effective ways to involve users in the development, dissemination, and feedback of extension communications (UNIFEM and IWTC, 1990).

#### vi) Women in Agriculture (WIA):

Women in the agriculture unit are headed by female extension staff, which was established with the goals of identifying the technical and information needs of rural women, assisting them to become more productive through training and technology dissemination, and meeting those needs through trained and qualified female agents working with women's groups. WIA seeks for participatory approach, particularly involving more rural women, and ensures equitable access to productive resources and extension services.

#### vii) Participatory action learning (PAL):

Participatory action learning has already been proved as a powerful approach to institutional change. The Centre for International Agricultural Development (CIAD) at the University of Beijing and the All-China Women's Federation (ACWF) adopted a participatory learning approach to their work with farm women in Nanjing County (Huang, 1995).

Some other approaches are:

a) Assisting and supporting public and private extension services to improve the quality of their services and adapt them to women's needs:

- Introducing gender-sensitive extension approaches

- Considering women's time constraints in the planning of training
- Providing training content that is relevant to women
- Introducing gender-disaggregated indicators to monitor extension-impact
- Sensitizing extension agents to gender-related issues
- Promoting the employment of women in agricultural extension services.

b) Conducting activities that raise men's awareness of their position of power and the negative impact of gender inequality on agricultural production.

c) Providing advice on family and inheritance law as a prerequisite for the protection of land use rights of women.

d) The Role of NGOs and the Private Sector have a great role in public sector extension services. NGOs continue to play a lead role in ensuring women farmers and women on the farm receive training, information, and improved technologies. Their services can help to empower women either as complementary support to government efforts or to fill the gaps created as government expenditures and capabilities decline.

e) Retaining Benefits: Rural women seldom have autonomous control over the opportunities that may come their way or the benefits which flow from them. Many advantages won for rural women through development programs are later lost. For example: "When technological innovations do address women's tasks and make them more profitable, men often take them over. This was exactly what happened when pump irrigation was introduced for rice production in West Africa" (Gittinger et al., 1990). For sustainable improvements, benefits should not be only targeted but mechanisms must also be made to ensure that these benefits can be retained by the intended beneficiaries.

f) Conducting different training programs for:

- women's needs and skills development
- Provide sufficient time to enable women to acquire new skills and adjust schedules to fit women's existing workloads.
- Provide training in agricultural and other productive activities, rather than just home and family welfare topics.
- Emphasize activities for which there is an actual income-generation potential.
- Ensuring the involvement and full participation of women from poorer and less educated backgrounds.
- Use trainers who are not only technically competent and up-to-date but who empathize with the needs and aspirations of rural women.
- Providing practical field experience in the use of innovations. Shifting resources to village-based training rather than residential training

## 5. CONCLUSION

Hence, the role of women is not only limited to reproductive and domestic work. They are the backbone of rural agriculture. The contribution of women in agricultural work is beyond the imagination of conventional extension approaches. Farming system research and extension approaches should keep farmers at the central character. New technology development should be based on female farmers' participation. Training activities should be based on the need and skill development of women. There are different barriers related to gender issues that should be properly addressed in new extension approaches.

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