

Impact of Farm Implements on Social-Economic Living of Rural Women

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In India, rural women are extensively involved in arduous agricultural activities from planting to harvesting and post-harvest operations. Studies highlight that women have poor access to technology, thus, their work is filled with drudgery and hardship-leading to feminization of poverty. In view of this, now there is growing perception and awareness about the link between gender perspective, development and environmental concern as women play a crucial role in rural development. With organized orientation and training, there is a great potential for empowering women with appropriate and sustainable technologies, especially in the area of agriculture operations mainly performed by women. Besides this, Technology based entrepreneurship development for self-employment will enable them to improve their income generation capability; provide their children good nutrition and health and access to education; enhance their quality of life and contribute meaningfully to national development.

Considering this, efforts were made through Mission Mode National Agriculture Technology Project on "Empowerment of Women in Agriculture" to increase the capacities of the farm women through technological empowerment. Thus, the present paper is a part of this project.

Women generally do not have accessibility to modern technology, training and other facilities, which are available to their male counterparts. Some women friendly agricultural technologies have been developed for farming operations, which can be easily operated by farmwomen. This equipment not only result higher output but also reduce drudgery. Considering this, location specific and need based agriculture technologies were identified for intervention among farm women. The identified technologies are twin wheel hoe, manual bund former, fertilizer broadcaster, manual transplanter, pedal thresher for paddy, seed treatment drum, improved sickle, bhindi plucker, parboiling unit, grain mill, rake, shovel, hand operated chaff cutter, wheel barrow etc.

Project is being implemented in the selected villages of two blocks of a coastal district of Orissa. From the selected villages 600 farmwomen, who are involved in agriculture and belonged to small and marginal farm families, were identified. The farm women were provided extensive training for their skill development for the use of selected technologies. Field demonstrations were organized for their easy understanding. For their economic empowerment, the selected farm women were organized into 40 Self-help groups. Their capacities were developed through repeated training programmes in different enterprise based on their preferences and resources available with them, so that they can set-up small enterprises.

Social-economic background of the respondents

- Majority of farm women were in the age group of 30-50 years (77.66%), belonged to nuclear type of family (77.17%) and were illiterate (47.00%). They belonged to upper middle caste (42.33%) followed by SC/ST caste (27.67%) and other backward classes (25.00%). Majority were involved in agriculture/farming as their main occupation (100%). However, (6.5%) women were found working as laborers.
- Majority of respondents had marginal land holdings (84.83%) followed by small land holdings. (15.17%). They were the member of one or more local organizations (97.33%).
- Majority of farm women (72.17%) had small herd size (1-3 milch animal or 10 small animals) of livestock and had thatched shed for animals (66.83%).
- Only few families found to have tractor tiller/farm machinery (0.83%), pump sets (1.5%), sprayer/duster (0.33%), thresher (1.00%) and winnower (0.5%). However, majority had desi wooden plough land leveler/patella and hand tools (79.33%, 94.67%, 99.33% respectively).
- Majority of farm women had electricity in their homes (75.67%), had hand pumps/water tap (24.83%), Radio/transistor (29%), Television sets (33.83%). However, only few were subscribing for Newspaper (3.17%). However, 31.33% families were nil in any media ownership.
- Majority had Bicycle (91.33%) and bullock Cart (21.83%). Very meager percentage of farm women (15.33%) had Scooter in their home.

- Negligible percentage of women had Gas stove (3.17%), Pressure Cooker (4.5%), Refrigerator (1.17%) and other improved kitchen tools (0.67% in their homes.
- Over all, majority of farm women were of low socio-economic status (76.83%) followed by medium SES (23.17%). None of the respondent was found in the category of high SES.

Participation of Farm Women in Agriculture Activities

High level of participation (75.100%) was observed in activities like, drying, parboiling of paddy, threshing, cleaning, storage, dehusking, weeding, raising nursery for seedlings, transplanting, grading, picking, gap filling and thinning. Drying and parboiling of paddy are the activities, which are done completely (100%) by farmwomen. Very less farmwomen (10.83%) were involved in irrigation, plant protection measures and marketing.

Technology Intervention

Farmwomen were trained by giving field demonstrations for the use of the improved agriculture implements/ technologies. Women have found these technologies very useful and convenient to handle. Feedback data indicate that women are making extensive use of these technologies in their day-to-day activities.

Social-economic Impact

Table 1 Custom Hiring of Agricultural Implements from Women Self Help Group

Sl. No.	Name of Implements	Rate for custom hiring/day (Rs.)	Average seasonal income per group (Rs.)
1.	Groundnut Decorticator	25	350
2.	Pedal Thresher for paddy	40	440
3.	Sprayer	20	180
4.	Paddy Winnowing	25	225

Table 2 Use of implements for Income Generation by Women Self Help Groups

Sl. No.	Name of Implements	Income per month (Rs.)	Total Income earned by SHGs* (Rs)
1.	Paddy Parboiling Unit	1230	3690
2.	Grain Mill	450	3150
3.	Masala Mill	260	1560

*During a season

Conclusion

- Increased use of agriculture technologies/implements
- Enhanced family income
- Increased self confidence among farmwomen
- Improved ability to influence or make decisions
- Improved status in the family/community.