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Mainstreaming gender and KVK interventions: Success story from Pudukkottai district

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Abstract
Rural women are imperative instrument for rural development. They play a catalytic role towards rural transformation in the line of economical and societal changes. Though female farmers account for 43% of the agricultural workforce, they own only about 1% of the agricultural land, worldwide. In India, the typical work of the female agricultural laborer or cultivator is limited to less skilled jobs, such as sowing, transplanting, weeding and harvesting. The limited autonomy to education, family decision making, credit, health care are the stumbling blocks in path ahead of gender mainstreaming. For upliftment of women in Agricultural domain, more of forward linkages and additional income generation avenues are needed apart from the production interventions. The technology hubs such as Krishi Vigyan Kendra (KVKs) could bridge the knowledge gaps and fortify efforts in achieving financial complacency.

Keywords: Gender mainstreaming, agriculture, livelihoods, institutions, interventions and additional income

Introduction
In India, women make up about 33% of cultivators and about 47% percent of agricultural laborers. About 45.43% of women involves in growing oil seeds and 39.13% in vegetable production. Though women contributes for farm productivity, in all agricultural activities there is an average gender wage disparity, with women earning only 70 percent of men's wage. According to FAO estimates 2017, given equal resources, women could contribute much more for farm productivity. The women farmers in developing countries if given the chance of same access as men, agricultural output in 34 developing countries would rise by an estimated average of up to 4 percent. This in turn could reduce the number of undernourished people in those countries by as much as 17 percent, translating to up to 150 million hungry people. Therefore 'Recognition and Mainstreaming of Women's role in Agriculture' is the need of the hour. The upliftment of women counterpart not only benefits the concerned individuals but also the families and rural communities as well as for the overall economic productivity. (Alkire, S. *et al*., 2013) [1].

Tribulations faced by Indian women farmers and laborers
Indian agricultural industry, which employs 80 to 100 million women and the sector, cannot survive without their labor. In India, women make up about 33% of cultivators and about 47% percent of agricultural laborers. Women's participation rate in the agricultural sectors is about 47% in tea plantations, 46.84% in cotton cultivation, 45.43% growing oil seeds and 39.13% in vegetable production while there exist only 14 percent landownership for women. In rural India, the percentage of women who depend on agriculture for their livelihood is as high as

84%. In the seed selection, sowing planting, harvesting and other aspects of farm management women are solely involved. The allied agro avenues like animal husbandry and fisheries also depend on contribution of women labour only.
It is also hardened to note that many women also participate in agricultural work as unpaid subsistence labor. It has been observed that an Indian female agriculture worker spends around 25 hours doing in a week doing household chores and 5 hours in caring and community work. Moreover the 30 hours of unpaid work, women spend the same amount of time as men carrying out agricultural work.

Institutional mechanisms for mainstreaming gender
Among the Government departments and private players, The Krishi Vigyan Kendras (KVKs) functioning in every district across Pan India are immensely playing a role in capacity building of farmers and rural society (Kokate, K.D., 2013) [4]. The KVKs as the knowledge hub not only disseminate the latest agricultural information and also co-ordinate with the various Government and non-Government organizations for the human resource development. Krishi Vigyan Kendras (KVKs) imparts tailor made hands on training to the practicing farmers, farm women and unemployed rural youth. Thus the KVKs could identify the felt needs of the community and thereby initiate site specific interventions for needy. With mainstreaming gender as a component in the Policy Framework for Agricultural extension (PFAE) developed by the Ministry of Agriculture, GOI, many gender specific initiatives are in progress at state and national level.

KVK as change agent in transforming women horticultural farmers Pudukkottai District profile
In Pudukkottai district, vegetables are grown in an area of 4000 Ha. Unstable yields and higher cost of production are the major problems faced by the vegetable growers in Pudukkottai district. Especially in Brinjal crop grown in 850 Ha, the heavy seedling mortality leads to unstable yield whereas and higher cost was incurred due to extra seeds usage and gap filling charges. The availability of seedlings also in great demand during the peak seasons. Though market rates are promising, the vegetable growers are in distress due to the above mentioned challenges.

KVK Intervention
Krishi Vigyan Kendra, Vamban functioning under administrative control of Tamil Nadu Agricultural University, Coimbatore is situated in Vamban village, Thiruvarankulam block of Pudukkottai district. KVK Vamban has explored additional income generation avenues for rural women. To meet out the twin issues of seedling mortality and non-availability of seedlings, KVK Vamban, Pudukkottai district Tamil Nadu initiated training on pro tray technique of seedling production for the farmers especially farm women. Initially a farm women vegetable nursery club intended to give first hand field training on vegetable nursery production such as varietal selection, seed treatment and pro tray technique of seedling production. The 30 women from adjoin areas were encouraged to join in the nursery club. The members were distributed with pro trays for raising seedlings of vegetables like Brinjal, Chillies and Tomato.

Case study of women vegetable grower
Smt. S. Chitra (aged 42) is a small farmer growing vegetables from Vadakadu village of Thiruvarankulam block of Pudukkottai district, Tamil Nadu. She has completed her S.S.L.C. and currently actively involved in farming of horticulture crops and animal husbandry. Mrs. S. Chitra is one of the participants in the nursery technology training during 2018. The training programme with demonstration on vegetable seedlings was an eye opener to land in the enterprise of seedling production and sales.

Impact
During the KVK trainings, filling the protrays with media, sowing vegetable seeds in portrays and were learned by her and adopted. With her interest and the sprinkler irrigation observed in some other places, she introduced sprinkler system inside the shade net house which reduced the labour cost on watering.

Output
Mrs. Chitra reaped net profit of more than Rs.20, 000 per acre by espousing protray technique and she is advocating every vegetable grower to follow the same. By adopting the pro tray technique of seedling production, she also saved on an average Rs.3000 per acre by avoiding gap filling costs (Table1). Timely availability of seedlings and reduced seedling mortality were the other benefits attained. Apart from the personal consumption, she started selling of the excess seedlings at the rate of Rs.1 per seedling which fetched her good returns. In 2018, she sold pro tray seedlings to the tune of Rs.20,000 during the seasonal period.

Outcome
Horizontal Spread
With traits of hard work and innovativeness, Smt. Chitra has been identified as a techno ambassador for dissemination of technologies in horticulture to other farmer of the area. In all KVK trainings, Smt. S. Chitra is participating and shared her success story with the fellow farm women and farmers. She is also demonstrating the technique to B.Sc., (Hons) Agriculture and Horticulture students who visiting her farm as a part of the exposure visit.
On seeing her success, the Adoption of the above technology has spread to Pallthividuthy, Dakshinapuram, Vettanviduthi, Kottaikadu villages. She is also having good rapport with local leading farmers in surrounding villages. Many farmers visit her farm and adopted the technologies and many are likely to adopt the same technology with minimum investment.

Market integration
Earlier, she visits Pudukkottai, Oddanchatram markets for purchase of seedlings, now the vendors comes to her place and purchase the same. She is also motivating the other farmers in her own and neighboring villages for pro tray seedling and vegetable production.

Group dynamics
Smt. S. Chitra often conducts group meetings which serve as opportunity for idea exchange, discussing problems and finding solutions. She is firmly believes that farm women if grouped together with common objectives, got trained properly could bring agricultural and horticultural development in their own villages more importantly self-reliant. She also expressed her gratitude to Krishi Vigyan Kendra Vamban for being the catalyst to increase their income, improve their standard of living and status in society.

Table 1: Comparison of Expenditures incurred in conventional and pro tray technique

Expenditures incurred	Conventional technique	Protray technique
FYM	2500	2500
Cocopeat	-	225
Seedling and seed treatment	165	165
Protray 81 Nos.	-	972
Filed preparation and sowing	4050	3300
Replanting	450	-
weeding	2250	2250
Fertilizer application	1950	880
Plant protection 6 times	8000	6000
Harvesting	16000	16000
Yield	11 Qtls	13 Qtls
Total cost	35,340	32,292
Savings per acre	3,028	
Additional income avenues	No	Yes@ Rs.1 per seedling

Fig 1: Distribution of pro trays-Horizontal effect of pro tray technology transfer

Fig 2: Active participation in the KVK training

Fig 3: Pro tray seedling demonstration to B.Sc., (Hons) Agriculture students

Conclusion

Though women farmers in indulge in most of the agricultural activities, their rights to salary and land are based on family and societal restrictions (Meinzen-Dick, R., *et al.* 2011) [2]. At 17% of GDP, the economic contribution of Indian women is less than half the global average, and compares unfavorably to the 40% in China, for instance. India could boost its growth by 1.5 percentage points per year if around 50% of women could join the work force. The prescriptive approach is no longer a solution for the burning gender issues. Hence the collective action is an utmost needed for transforming the society. (The World Bank, 2012) [3]. The coherent group efforts could scale up the present initiatives and promote inclusive growth and sustainable development. Thus the institutional approach which encourages gender sensitization would leverage not only financial freedom for women but also in upscale farm women from vicious cycle of poverty.

References

1. Alkire S, Meinzen-Dick R, Peterman A, Quisumbing A, Seymour G, Vas A *et al*. The Women's Empowerment in Agriculture Index. World Development. 2013; 52:71-91.
2. Meinzen-Dick R, Johnson N, Quisumbing A, Njuki J, Behrman J, Rubin D *et al*. Gender, Assets, and Agricultural Development Programs: A Conceptual Framework. CAPRi Working Paper No.99. Washington, DC: International Food Policy Research Institute, 2011.
3. World Development Report. Gender Equality and Development, 2012. Retrieved on 19.10.2019. https://openknowledge.worldbank.org/handle/10986/4391
4. Kokate KD. Technology Options for small Farm Intensification: Experiences of KVKs. Sustainable Intensification of Smallholder Farmers. In 8th National Conference on Krishi Vigyan Kendra 2013. Held during Oct. 23-25, 2013 at UAS, Bangalore, 2013, 17-22