

Empowerment of Smallholder Women Farmers through Self-Help Groups in South-West India

Shinogi K.C.^{1,2*}, Jayashree Krishnankutty M.¹, Eldho Varghese³, Sanjay Srivastava², Rashmi I.⁴,
Renu Balakrishnan⁵ and Reshma Gills³

ABSTRACT

Though women act as the backbone of world agricultural workforce most of them are economically backward. But, self help group (SHG) movement made some tangible changes in empowering rural women in India. The study was carried out among 120 SHG women farmers and 60 non-SHG women farmers of south west India to analyze the impact of SHGs in empowering rural farm women. Results showed most of SHG women farmers as highly empowered and their economic empowerment found to be prominent compared to control group. However, empowerment score of non-SHG women farmers showed strong correlation with some social and technological indicators. Major factors that favoured sustainable high performance of SHGs were; heterogeneity of the group, proximity of the women's households, income generation and extension contact. The study confirmed that acquisition of some autonomy by women in social participation and economic decision-making have contributed to overcome many constraints that hamper their overall empowerment.

Keywords: Empowerment, Self help groups, Market-led extension, Women farmers

INTRODUCTION

Women represent nearly forty three per cent of the global agricultural labour force (FAO, 2011). In India, forty eight percent of the population comprises of women and seventy percent of them are confined to the rural villages. Almost 61.6 million women agricultural labourers and 36 million women cultivators of India come from this rural women group (GOI, 2011). Most of these farm women belong to the economically poor category with less socio-economic participation. In a changed agriculture scenario where role of women in agriculture has increasingly been recognised as important and necessary (Farmer-Bowers, 2010) in ensuring the world

food security, empowering them with necessary knowledge and skills has become the need of the hour. Empowerment of rural women envisages equipping them to be economically independent and self-reliant with building their self-esteem and also encourage them to be a part of development activities of the society they live in (Hazarika, 2011). Expanding the reach of India's public extension system to this wider beneficiary group would be a tough job as the efficiency of research-extension-farmer-market chain of the public sector extension of the country is continuously being questioned in the recent past (Parsai, 2010). However, a gradual shift in India's extension policy from the state-driven supply model to farmer based self-help group model has

¹Kerala Agricultural University, Thrissur, Kerala

²ICAR-Indian Institute of Soil Science, Bhopal, Madhya Pradesh

³ICAR-Central Marine Fisheries Research Institute, Kochi, Kerala

⁴ICAR-Indian Institute of Soil and Water Conservation, Region Centre Kota, Rajasthan

⁵ICAR-Central Institute of Post Harvest Engineering and Technology, Ludhiana, Punjab

*Corresponding author email id: shinojikallely@gmail.com

been observed with the self-help group approach (Glendenning *et al.*, 2010). Self-help group movement made a significant increase in the empowerment of rural women in India (Swain and Wallentin, 2009) and made them micro-power centres through the promotion of micro enterprises in the villages (Irshad and Juman, 2015). On the other hand, irrespective of the support from the government and non-government agencies there were symptoms of withdrawal among many self-help group members after an initial high performing phase in different parts of the country. Some self-help groups became idle or moved to a less active stage after an initial phase of active functioning. In a scenario where the development of rural India is envisioned through the collective empowerment of the rural women, it would help greatly if it is understood how different external factors operate to bring empowerment in a woman and why some self-help groups are sustainable but some others are not. This paper analyses the factors contributing to the dimensions of women empowerment and success indicators of sustainable women self-help groups in south-west India.

METHODOLOGY

An *ex-post facto* research design was used for the study and mixed methods were used for data collection. The study was carried out in Kerala, the southernmost Indian state that lies between north latitudes 8°18' and 12°48' and east longitudes 74°52' and 77°22'. Kerala is the state with the highest female to male sex ratio (1084 female for 1000 male) as well as highest female literacy rate (92.7) in India (GoI, 2011). Kerala was purposively selected for the study because of the reports on the success of self group movement in bringing the unemployed women in to agriculture and related activities throughout the State. Six women self help groups (comprising 10 women each) practicing vegetable farming and another group of 60 women farmers with similar livelihood status with no self-help group membership were selected from two districts viz., Thrissur and Kasaragod through simple random sampling procedure as the respondents. The group dynamics of the self help groups for sustainable performance were studied through another six self help groups (comprising 10 women each) from the same area dealing with the

production and marketing of agricultural bio-inputs in the state. These six self help groups were identified as sustainable through a pilot study mainly because of their high performing nature for a prolonged period of time.

Data collection was carried out through cross sectional field survey and focus group interview in two phases from the same group of respondents; first in the year 2007 and further in the year 2014 as a follow-up study. This approach of data collection had been used purposively to reduce error in data due to the high activity of SHGs in the initial years and a lag phase in the following years. For the study, empowerment was conceptualised as a multidimensional construct with its four dimensions viz., social, personal, technological, and economic empowerment. To measure the four empowerment dimensions sixteen indicators/variables were used. Five questions were prepared under each empowerment indicator/variable and an arbitrary scale of five point continuum was used for the measurement. To assess the sustainability of high performing self help groups in agriculture six indicators were identified after the item analysis of 30 factors. Data collection was carried out through twelve open ended questions.

Since surveys were conducted at two phases the mean scores obtained for each statement of different variables from two surveys was considered as the final score for the data analysis. For the first level analysis of empowerment of woman farmer, four categories were fixed as 'very high empowerment' if her total score was equal to or more than 70 per cent of the of maximum attainable score, 'high empowerment' if the total score lied between 60-70 per cent of the maximum attainable score, 'moderate empowerment' if the total score lies between 50-60 per cent of the maximum attainable score and 'poor empowerment' if the total score is below 50 per cent of the maximum attainable score. Further to test the statistical significance of the results on empowerment dimensions Mann Whitney U test (a non parametric statistical tool alternative to the t-test) and Spearman's rank correlation were used. Logistic regression was done to find out the influence of the success indicators on the sustainability of women self help groups.

RESULTS AND DISCUSSION

Socio-economic profile of the SHG and Non-SHG groups of women farmers

Among the two groups of respondents 60 per cent of the SHG and 38 per cent of the non-SHG groups of women farmers were middle aged with less than 60 years (at the time of data collection in the year 2007). About 73 per cent of the SHG and 15 per cent of non-SHG women farmers had completed 12 years (10+2) of schooling. Whereas 8.3 per cent of the non-SHG women farmers had no schooling but, found to be functionally literate enough to read and write. More than half women farmers of both groups belonged to low income group (60% of SHG and 56% of non-SHG) with an average annual income of 50000 INR. Regarding the land ownership 45 per cent of the SHG group and 30 per cent of the Non-SHG group of women farmers belonged to landless category and depending on leased lands for farming, rest women farmers of both groups belonged to the small and marginal farmer category. Nearly 53.5 per cent of SHG group and 35 per cent of Non-SHG group of women farmers were relatively new to farming with an experience of less than 10 years. Most of the SHG (83.3%) respondents spent around 3-6 hours per day in farming whereas in the case of non-SHG group most (96%) of the respondents spent more than 6 hours per day for farming activities. Regarding family size, majority of both groups (90% SHG and 95% non-SHG) belonged to nuclear family with ≤ 5 member. Diversity of vegetables grown by the two groups of respondents was really notable as it was ranging from ten to fifteen in each farmland and the type of vegetables grown by the two groups of women farmers were also more or less similar. Socio-economic analysis

results showed that self-help-group movement could bring most of the educated and unemployed rural young and middle aged women to farming. Also, SHG activities helped these women to add some extra amount to the family income through their efforts.

Empowerment status of SHG and non-SHG groups of women farmers

The first level analysis showed 61.67 per cent the women farmers of the SHG group came out in the very high empowerment category, and rest 38.33 per cent in the high empowerment category. Whereas, there were no one in the high empowerment category among the non-SHG group of respondents. Some of them were distributed in the high (6.67%), and moderate (38.33%) categories but majority (55%) of them were in the poor empowerment category (Table 1).

Analysis carried out to explore more about the four dimensions of empowerment (Table 2) showed significant differences between the two groups of women farmers in their empowerment status. Self help group based vegetable farming empowered the rural women farmers in all the four aspects viz., social (mean rank = 87.24), personal (mean rank = 77.01), technological (mean rank = 79.12), and economic (mean rank = 90.50) aspects of their life compared to the other women farmers of the society.

However, the independent analysis carried out to understand the differences in the contribution of sixteen empowerment indicators between the two groups (Table 3) showed that SHG based women farmers had superiority in thirteen out of the sixteen empowerment indicators over the control group. Both groups of women

Table 1: Empowerment status of two groups of respondents

| Category of empowerment | SHG (n=60) | | Non-SHG (n=60) | |
|--------------------------------------------|------------|---------------|----------------|---------------|
| | Frequency | Percentage | Frequency | Percentage |
| Very High (>70% maximum attainable score) | 37 | 61.67 | 0 | 0.00 |
| High (60-70% maximum attainable score) | 23 | 38.33 | 4 | 6.67 |
| Moderate (50-60% maximum attainable score) | 0 | 0.00 | 23 | 38.33 |
| Poor (<50% maximum attainable score) | 0 | 0.00 | 33 | 55.00 |
| Total | 60 | 100.00 | 60 | 100.00 |

Table 2: Comparison of the Empowerment Dimensions of two groups

| Dimensions | Mean Rank | | Mann-Whitney U | Z | p |
|---------------|------------|----------------|-------------------|--------|----------|
| | SHG (n=60) | Non-SHG (n=60) | | | |
| Social | 87.24 | 33.76 | 195.500 | -8.455 | < 0.0001 |
| Personal | 77.01 | 43.99 | 809.500 | -5.304 | < 0.0001 |
| Technological | 79.12 | 41.88 | 683.000 | -5.934 | < 0.0001 |
| Economic | 90.50 | 30.50 | 0.000 | -9.594 | < 0.0001 |

Table 3: Comparison of the Empowerment Indicators of two groups of women farmers

| Dimensions & Indicators | Mean Rank | | Mann-Whitney U | Z | p |
|----------------------------------|-----------|---------|-------------------|---------|----------|
| | SHG | Non-SHG | | | |
| Social Empowerment | | | | | |
| Social participation | 83.50 | 37.50 | 420.000 | -7.645 | < 0.0001 |
| Physical mobility | 87.30 | 33.70 | 192.000 | -9.051 | < 0.0001 |
| Social status | 73.23 | 47.78 | 1036.500 | -4.507 | < 0.0001 |
| Social inclusion | 67.05 | 53.95 | 1407.000 | -2.258 | 0.024 |
| Personal Empowerment | | | | | |
| Innovativeness | 75.18 | 45.83 | 919.5000 | -5.423 | < 0.0001 |
| Communication ability | 68.67 | 52.33 | 1310.000 | -3.003 | 0.003 |
| Proactive attitude | 69.98 | 51.02 | 1231.000 | -3.559 | < 0.0001 |
| Leadership ability | 60.50 | 60.50 | 1800.000 | 0.000 | 1.000 |
| Technological Empowerment | | | | | |
| Knowledge in agriculture | 73.25 | 47.75 | 1035.000 | -4.493 | < 0.0001 |
| Information source utilisation | 72.86 | 48.14 | 1058.000 | -4.194 | < 0.0001 |
| Marketing intelligence | 71.85 | 49.15 | 1119.000 | -3.989 | < 0.0001 |
| Marketing efficiency | 65.07 | 55.93 | 1526.000 | -1.727 | 0.084 |
| Economic Empowerment | | | | | |
| Income generation | 90.00 | 31.00 | 30.000 | -10.161 | < 0.0001 |
| Credit utilization | 63.50 | 57.50 | 1630.000 | -1.093 | 0.274 |
| Purchasing power | 90.50 | 30.50 | 0.000 | 0.000 | < 0.0001 |
| Savings behaviour | 90.50 | 30.50 | 0.000 | 0.000 | < 0.0001 |

farmers found more or less equal in their leadership ability with a mean rank of 60.50 for both SHG and non-SHG women farmers, marketing efficiency with a mean rank of 65.07 for SHG and that of 55.93 for non-SHG women farmers, and credit utilisation pattern with a mean rank of 63.50 for SHG and that of 57.50 for non-SHG women farmers. The results confirmed the importance of self help group activity in the social, personal, technological and economic empowerment of small/marginal and landless women farmers. Table 2

conveyed that highest disparity between the two groups in the economic empowerment dimension. Further, table 3 confirmed the dominance of SHG women farmers over the non-SHG women farmers with three economic empowerment indicators viz., income generation, purchasing power and saving behaviour (mean ranks = 90).

Role of SHGs in the socio-economic advancement of rural women was reported by many researches

(Deininger and Liu, 2009; Singh, 2013; Mahanto, 2015; Kumari *et al.*, 2020). When a woman acquires the ability to succeed in her economic endeavours and the power to decide she may be considered economically empowered (Golla *et al.*, 2011). The mean ranks for purchasing power and saving behaviour of women farmers of SHG group shows their hand on economic decisions in the family. Moreover, group participation helped them to bring a positive outlook to the socio-economic development and technical efficiency of these women farmers (Jose, 2015; Anang *et al.*, 2016). Since the non-SHG women farmers of the study did not show any promising results in most of the empowerment indicators, lack of group participation could be considered as the major reason for women's poor empowerment in agriculture in India (Gupta *et al.*, 2017). On the other hand, personal empowerment may be considered as an indirect measure of total empowerment because once a person becomes empowered economically being a part of a group naturally her social participation increases she will get more acceptance in the society. More social interaction helps her to improve personal qualities as well as technical efficiency and makes her totally empowered. So it could be once a farm woman is economically empowered that leads her to the complete empowerment later.

Correlation of empowerment indicators

Results of Spearman's rank correlation analysis (Table 4) shows that sixteen indicators used in the study were correlated differently to the total empowerment scores of SHG and non-SHG groups of women farmers. Eleven out of sixteen empowerment indicators showed positive correlation with total empowerment score of SHG women farmers whereas for the non-SHG group of women farmers thirteen indicators showed a moderate to strong positive correlation to the total empowerment score.

Interestingly some indicators like communication ability ($r=.545$), leadership ability ($r=.450$), and knowledge in agriculture ($r=.716$) showed a moderate to strong positive correlation with the empowerment status of the non-SHG women farmers but, did not show any significant correlation with that of the SHG women

Table 4: Correlation analysis of empowerment indicators with total empowerment

| Indicators | p value | |
|--------------------------------|---------|---------|
| | SHG | Non-SHG |
| Social participation | .544** | .609** |
| Physical mobility | .559** | .408** |
| Social status | .479** | .623** |
| Social inclusion | .288* | .360** |
| Innovativeness | .355** | .451** |
| Communication ability | .142 | .545** |
| Proactive attitude | .462** | .408** |
| Leadership ability | .035 | .450** |
| Knowledge in agriculture | .146 | .716** |
| Information source utilization | .298* | .704** |
| Marketing intelligence | .605** | .773** |
| Marketing efficiency | .018 | .182 |
| Income generation | .611** | 0 |
| Credit utilization | .294* | .250 |
| Purchasing power | .317* | .478** |
| Savings behaviour | .139 | .346** |

*Significant at 5% level of p & **Significant at 1% level of p

farmers. It could be inferred here that the empowerment of a small/marginal women farmer is possible even if she does not possess a communication power, leadership qualities, and knowledge about the agricultural practices as long as she stays as a part of an active group. The study of Kenneth and Seena (2012) also support this finding. They reported that hardly 67 per cent of the member of women self help groups are active in running the group and rest stay as passive members without taking much responsibility of the leadership roles. However, the strong positive correlation of income generation ($r=.611$) with the empowerment score of SHG women farmers conveyed that passive women farmers also get the opportunity to improve their economic status through group farming and marketing. But, in the case of an independent women farmer communication skill and knowledge in agriculture are most important to make profit from agriculture. Importance of income generating activities in women empowerment and inter-linkage between SHGs and marketing were noted by some earlier researchers also (Pillai and Harikumar, 2006; Bhol *et al.*, 2020).

Table 5: Success indicators of sustainable SHGs

| Variables | Score | df | p-value |
|-------------------------------------------|--------|----|---------|
| Heterogeneity distribution of the members | 9.149 | 1 | 0.002* |
| Proximity distribution of the members | 10.184 | 1 | 0.0018* |
| Size of activity group | 0.908 | 1 | 0.3418 |
| Extension contact | 5.109 | 1 | 0.024* |
| Income generation | 10.127 | 1 | 0.001* |
| Market access | 3.019 | 1 | 0.082 |
| Overall Statistics | 11.493 | 6 | 0.074 |

*Significant at 5% level of p

Success indicators for sustainable women self help groups

The analysis indicated that sustainability of SHGs mainly dependent on four variables, viz., heterogeneity among the members with respect to their age, educational status and occupational status, proximity of the households, extension contact and income generation (Table 5). Though some previous research reports conveyed that homogeneity among members have a positive impact on the success of any SHG (Ranadive, 2004; Suguna, 2006) our study showed rather than homogeneity among the members heterogeneity sustains the SHG in the long run. Further, proximity of the households might be important for the longevity and cohesion of the group in the long run as mostly rural women need permission to visit even their friends and relatives. Size of activity group may not be very important in sustainability of a SHG since an increase or decrease in the members doesn't actually contribute to the group climate if the other factors are favourable. Similarly, market access, as an independent variable, may not be decisive of sustainability of group, since the institutionalised nature of SHGs provides them avenues to overcome the marketing and technical hitches. So these four attributes can be looked into while forming SHGs and also in providing them with assistance.

CONCLUSION

The study confirmed that self help group movement has contributed a lot to the socio-personal and techno-economic progress of the rural farm women of south-

west India especially by transforming them economically independent. The two districts, in which the study was conducted, varied very much in their demographic, socio economic and agro ecosystem features. Still, the study could yield comparable results from the respondents, which shows the uniform impact of the SHG movement in addressing rural poverty. More of the SHG women were landless and newer to farming still they spent less time in farming activities than their counterpart non SHG women, perhaps due to sharing of duties among group members reduced workload on individual members. Proximity of the group members and degree of income generation from the enterprise was the most important factors that contributed to sustainable SHGs. SHGs have started to improve the physical mobility of the rural women and have brought them out of the stereotypical role of the family cook. There are still many impediments and constraints these women have to tackle before they can scale up to become substantial entrepreneurs or earners. In any case, it can be undoubtedly said that the SHGs have brought a new hope and spirit to the rural women, by handholding them into the path of real empowerment, economically, socially and individually.

Paper received on : February 02, 2021

Accepted on : March 20, 2021

REFERENCES

- Anang, B.T., Backman, S. and Sipilainen, T. (2016). Agricultural microcredit and technical efficiency: the case of smallholder rice farmers in Northern Ghana, *Journal of Agricultural and Rural Development in the Tropics and Subtropics*, **117**(2), 180-202. <https://www.jarts.info/index.php/jarts/article/view/2016061350415/882>
- Bhol, M., Mishra, M., Raj, R.K. and Mishra, J.R. (2020). Perceived measures for empowering Lodha women in Odisha, *Indian Journal of Extension Education*, **56**(2), 96-98.
- Deininger, K. and Liu, Y. (2009). Longer-term economic impacts of self-help groups in India. Policy research working paper No.4886. The World Bank, Washington DC. <https://openknowledge.worldbank.org/bitstream/handle/10986/4081/WPS4886.-pdf;jsessionid=CD7739E4EEADBBE06C6054BBF7A0A5B4?sequence=1>
- Farmar-Bowers, Q. (2010). Understanding the strategic decisions women make in farming families, *Journal of Rural Studies*, **26**,141-151

- Food and Agriculture Organization (2011). The role of women in agriculture. ESA Working Paper No. 11-02. <http://www.fao.org/docrep/013/am307e/am307e00.pdf>.
- Glendenning, C.J., Babu, S.C. and Asenso-Okyere, K. (2010). Review of the agricultural extension in India, IFPRI Discussion Paper 01048, International Food Policy Research Institute, Washington DC. <http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/7280>. Accessed 20 June 2015
- GoI (2011). All India Report on Number and Area of Operational Holdings. Agricultural census Division, Department of Agriculture and Cooperation, Government of India. <http://agcensus.nic.in/>. Accessed on 5 January, 2014.
- Golla, A.M., Malhotra, A., Nanda, P. and Mehra, R. (2011). Understanding and Measuring Women's Economic Empowerment: Definition, Framework and Indicators. International Center for Research on Women, Washington DC. <https://www.icrw.org/wp-content/uploads/2016/10/Understanding-measuring-womens-economic-empowerment.pdf>
- Gupta, S., Pingali, P.L. and Pinstrup-Andersen, P. (2017). Women empowerment in Indian agriculture: does market orientation of farming systems matter? *Food Security*, **9**(6), 1447-1467. Retrieved from: <https://doi.org/10.1007/s12571-017-0737-4>
- Hazarika, H. (2011). Women empowerment in India: a brief discussion, *International Journal of Educational Planning & Administration*, **1**(3), 199-202. <http://www.ripublication.com/ijepa.htm>. Accessed on 18 December, 2014.
- Irshad, M.K. and Muhammed Juman, B.K. (2015). A Study on the micro enterprises promoted by kudumbashree and their marketing strategies in Malappuram District, *Bonfring International Journal of Industrial Engineering and Management Science*, **5**(2), 78-82. <http://www.journal.bonfring.org/papers/iems/volume5/BIJ-8086.pdf>
- Jose, J. (2015). Role of kudumbashree and women empowerment: a study of Thiruvananthapuram municipal corporation areas in Kerala state, India, *International Journal of Research – Granthaalayah*, **3**(12), 72-82. http://granthaalayah.com/Articles/Vol3Iss12/08_IJRG15_C12_57.pdf
- Kenneth, K. and Seena, P.C. (2012). Socio-economic changes of women through kudumbasree: a study from Puthenvelikkara of Kerala State, India, *International Research Journal of Social Sciences*, **1**(2), 1-7. <http://www.isca.in/IJSS/Archive/v1/i2/1.ISCA-JSS-2012-024.pdf>
- Kumari, N., Malik, J.S. and Ghalawat, S. (2020). Assessment of the constraints perceived by the self-help groups members and impact on their livelihood, *Indian Journal of Extension Education*, **56**(3), 54-59.
- Mahanto, N. (2015). Self help groups and economic empowerment of women in India: some reflections, *Asian Journal of Multidisciplinary Studies* **3**(5), 99-104. <http://ajms.co.in/sites/ajms2015/index.php/ajms/article/view/1113/817>
- Parsai, G. (2010). Manmohan: double farm growth rate to ensure food security. *The Hindu*. <https://www.thehindu.com/sci-tech/agriculture/Manmohan-double-farm-growth-rate-to-ensure-food-security/article16259650.ece>
- Pillai, B.V. and Harikumar, V. (2006). Self-help groups in Kerala. *Kurukshetra*, **54**(9), 30-32.
- Ranadive, D.J. (2004). Women's Self Help Groups in Andhra Pradesh- Participatory Poverty Alleviation in Action. A Case Study from Reducing Poverty, Sustaining Growth-What Works, What Doesn't and Why? Scaling Up Poverty Reduction: A Global Learning Process and Conference in Shanghai, May 25 to 27, 2004.
- Singh, Y. (2013). Effect of self help group in economic empowerment of rural women in Himachal Pradesh, *Journal of Indian Research*, **1**(3), 54-61.
- Suguna, B. (2006). *Empowerment of Rural Women through Self Help Groups*. Discovery Publishing House, New Delhi.
- Swain, R.B. and Wallentin, F.Y. (2009). Does microfinance empower women? evidence from self help groups in India, *International Review of Applied Economics*, **23**, 541-556.