

## **Communication Network of Women Vegetable Growers of Nainital District of Uttarakhand**

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### **ABSTRACT**

A communication network consists of interconnected individuals who are linked by a patterned exchange of information. Its analysis identifies the communication structure in a system. Exchange of information and its diffusion takes place within a social system and the roles of actors such as people and organizations affect the diffusion of the innovation process. The present study was undertaken to delineate the communication network of women vegetable growers of Nainital district of Uttarakhand state. The study was conducted in six randomly selected villages of Community Development Blocks namely, Haldwani, Ramnagar and Dhari in Nainital district during 2012-2014. The approach of sociometry was applied to probe the key communicators in dissemination of vegetable related information. The respondents were asked from whom they seek advice or suggestion in matters related to vegetable cultivation. Their responses were noted and key communicators were identified and diagrammatically depicted using target sociogram technique. Communication stars of each village were identified from the sample respondents. Results of the study emphasized on capacity building programme for communication stars to promote vegetable cultivation.

**Key words:** Sociometry, Sociogram, Communication star, Vegetable Growers

### **INTRODUCTION**

Interpersonal and face to face communications are essential components in adoption and diffusion process, and they are critical for changing attitudinal dimension of behaviour. The communication requirements of women in rural areas are different from those of women and men in urban centres and developed countries. Search for information on a person- to- person basis is a characteristic condition of rural life. The advice of friend and neighbours is often sought freely. Even if there is an increase in the use of mass media, the importance of interpersonal communication cannot be ignored. This is because of the fact that the interpersonal channels have specific function in the diffusion process. Interpersonal network play a great role in shaping attitude, behaviour, personality and change proneness of people. In Uttarakhand, men in most of the families work outside due to lack of industries or other avenues of employment in this region. Women of this state are very hard working; they toil through the day, starting with the family works, nurturing children and livestock, going out for fodder, fuel, drinking water and farming for their families. Cultural conditions in the state do not allow women to get

more exposure from outside their village. In this condition, interpersonal channels play an important role. Utilization of improved agricultural technology by the women farmers, to a large extent, depends upon the effective sources of information and channels to which they are generally exposed directly or indirectly. Networks have great influence in rural women's life who spend most of their time living and working in these networks. These networks which inform, develop, support and influence members of a largely govern behaviour, attitude and relationships. Very few researches have been devoted to the structural aspects of interpersonal communication networks at village level and relatively no attempts have been made for qualitative analysis of these networks. Socio-cultural and geographical conditions do not allow women to go far from their villages for acquiring farm information. In this condition, women interact with their fellow villagers or wait for extension workers to come to their doorsteps. In the village community, face to face interaction of the farm women provides opportunities of experience sharing in the farming activities. In recent times, farmers are in a transition from production-led-extension to market- led-extension. This transition also creates a force of change

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for farm women to increase efficiency of their multi dimensional roles. This will be possible through updating their knowledge and making them strong enough to take farm decision wisely. Several studies highlight the potential of interpersonal communication. To formulate effective market-led extension strategies, it is essential to understand the interpersonal communication networking among farm women. The knowledge gap on agricultural information flow to farm women in relation to their access and utilization for crop packages in Uttarakhand state demands systematic investigation. The present study, therefore, addresses this research gap and tries to make empirical inferences to help planners and extension administrators as well as future researchers on the matter investigated.

### METHODOLOGY

In this study, research approach of sociometry was applied to probe the key communicators in the dissemination of agricultural information. A sample of 150 vegetable growing farm women were randomly drawn from Nainital district for the study. The respondents were asked from whom they seek advice or suggestion in matters related to agriculture in general. Their responses were noted and key communicators were identified and diagrammatically depicted using target sociogram technique proposed by Northway(1940). Statistical tools namely Sociometric score, percentage and cumulative percentage were applied. After giving identification marks to each of the respondents the sociometric responses were arranged into NxN matrix table (who to whom matrix) in which the rows show the person chosen. For plotting the diagram software named 'Softonic' were used for the study.

**Identification of key communicators:** For the purpose of identification of key communicators, each respondent was asked to give their first, second and third choices of the persons whom they consulted in the village for advice in the matters of agriculture and related aspects. All the consulted women were called as key communicators. Weightages of 3, 2 and 1 were accorded for first, second and third choices respectively.

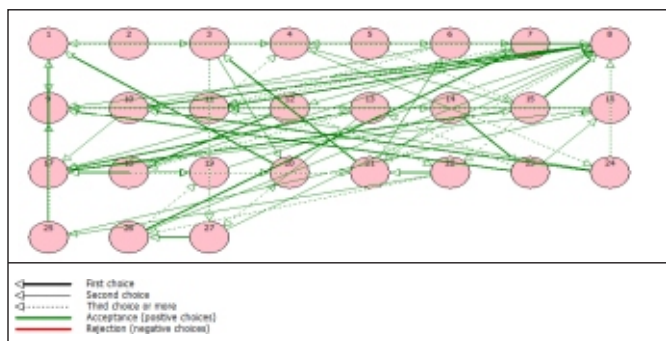
**Target sociogram:** The intra village analysis of respondents was done. For plotting the sociogram of each village 'who to whom' matrix of each village was drawn. Its 'X' axis indicates the number of choices an individual respondent had received from her fellow farm women, while rows on 'Y axis' indicates to whom an individual respondents had chosen to discuss on vegetable cultivation related matters. Target sociogram is a radial layout proposed by Northway in 1940 to emphasize choice status. It is indicated by concentric circles with the

most chosen person as the centre and patterns of relationships shown in the usual way with arrows. It is so called as target because concentric circles are pre-established to resemble a bulls-eye target and the symbols are placed in the appropriate circle. Key communicators in the central circle are more central in the sense that they were chosen more often and at the edge were chosen less often. For this purpose first choice of the respondents were considered. The high communicators were placed in the central circle, followed by the medium communicators in the second circle and low communicators in the third circle from the centre. Symbols were used to depict different key communicators as represented in the sociogram. Efficiency of interpersonal communication network and stability of interpersonal communication network were also calculated.

### RESULTS AND DISCUSSION

According to the objective of the study, the communication network of farm women was analysed. The data were analysed with respect to social communication networks which were based on network centrality of an individual respondent. The respondents were asked to indicate the names of three individuals with whom she discussed on vegetable cultivation related matters. When compared to central individuals, identifying bridging individuals who connect two otherwise disconnected groups are a much more efficient way to affect behaviour change. Bridges and local bridges are powerful ways to convey awareness of new things, but they are weak at transmitting behaviour that is in risky or costly to adopt. One of the powerful roles that networks play is to bridge the local and the global. Six networks were delineated as study was focused on six villages. The results are presented village wise under the following section.

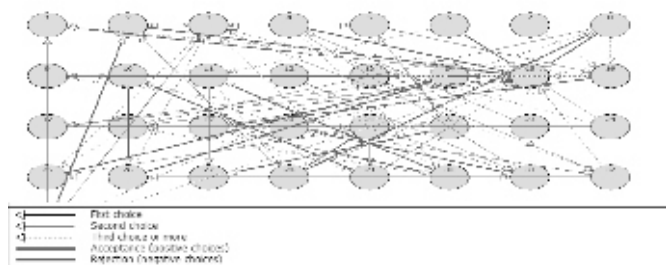
**Village-1:** In village-1, the intra village analysis of 27 respondents was done. The interpersonal communication network efficiency score was found to be 0.018. This shows that the existing interpersonal communication network efficiency of village is very low. The study village has number of group (4). In the absence of any centralized liaison, the information does not travel from group to group and remain confined to one group. In such circumstances, there is a little chance of information diffusion from one group to the other in a network. Interpersonal communication network stability score is 0.38 which indicates that the existing network is stable. The stability in the study village was due to the presence of many small groups on the basis of caste and geographical location. There were only three groups with more than ten persons and having more than five bridges.



**Fig. 1: Sociogram of Village-1**

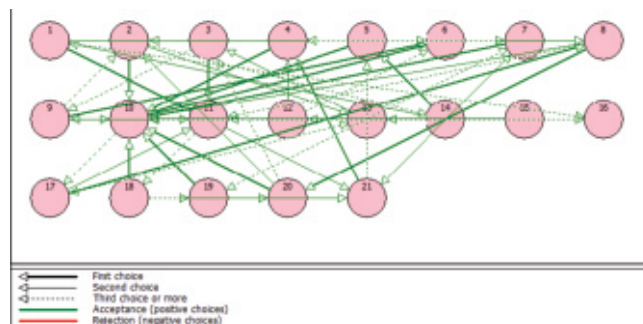
The graphic presentation (Fig. 1) showed the respondent no. 8 had maximum choices with a sociometric score of 40. It was also found that 5 more people (respondent no. 4, 8, 9, 11, 17) were popular among the respondents. Only one respondent (respondent no. 25) was categorized as neglected as no one considered them as their choice. Respondents who were 'popular' and 'liked more than dislike' were the members of a Self Help Group.

Village-2: In Village-2, the intra village analysis of 33 respondents was done. The interpersonal communication network efficiency score was found to be 0.50. This showed that the existing interpersonal communication network efficiency of village was very low. The study village has number of groups (5). Interpersonal communication network stability score is 0.28 which indicates that the existing network is stable. The stability in the study village was due to the presence of many small groups on the basis of caste and geographical location and Self Help Group. There were only three groups with more than ten persons and having more than three bridges.



**Fig. 2: Sociogram of Village-2**

Sociogram (Fig. 2) shows the respondent no. 15 had maximum choices, with a sociometric score of 53. It was also found that eight more people (respondent no. 1, 3, 15, 16, 18, 20, 26 and 31) were popular among the respondents. Four respondents (respondent no. 6, 7, 12 and 24) were categorized as neglected as no one considered them as their choice. Respondents who were 'popular' and 'liked more than dislike' were also belonged to a Self Help Group.



**Fig. 3 : Sociogram of Village-3**

Village 3: In village-3, the intra village analysis of 21 respondents was done. The interpersonal communication network efficiency score was found to be 0.011. This shows that the existing interpersonal communication network efficiency of village was very low. The study village has number of group (2). Interpersonal communication network stability score was 0.12 which indicated that the existing network was unstable. Stability in the study village was due to the presence of many small groups on the basis of caste and geographical location and Self Help Group. There were only three groups with more than ten persons and having more than two bridges. The graphic presentation (Fig. 3) shows the respondent no. 10 had maximum choices, with a sociometric score of 41. It was also found that 5 more people (respondent no. 3, 5, 6, 8, 11) were popular among the respondents. Only four respondents (respondent no. 12, 20, 14, 18) were categorized as neglected as no one considered them as their choice. Respondents who were 'popular' and 'liked more than dislike' were the members of a Self Help Group.

Village-4: In village-4, the intra village analysis of 25 respondents was done. The interpersonal communication network efficiency score was found to be 0.80. This shows that the existing interpersonal communication network efficiency of village was very low. The study village has number of group (8). Interpersonal communication network stability score was 0.33 which indicates that the existing network was stable. The stability in the study village was due to the presence of many small groups on the basis of caste and geographical location and Self Help Group.



**Fig. 4 : Sociogram of Village-4**

Fig.4 shows that there were only three groups with more than ten persons and having more than four bridges. It was also found that six more people (respondent no. 4, 5, 8, 21, 22, 25) were popular among the respondents. Two respondents (respondent no. 15 and 24) were categorized as neglected as no one considered them as their choice. Respondents who were 'popular' and 'liked more than dislike' were the members of a Self Help Group. The graphic presentation shows the respondent no. 21 had maximum choices, with a sociometric score of 51.

Village-5: In village-5, the intra village analysis of 20 respondents was done. The interpersonal communication network efficiency score was found to be 0.018. This shows that the existing interpersonal communication network efficiency of village was very low. The study village has number of group (6). Interpersonal communication network stability score was 0.38 which indicates that the existing network is stable. The stability in the study village was due to the presence of many small groups on the basis of caste and geographical location and Self Help Group.

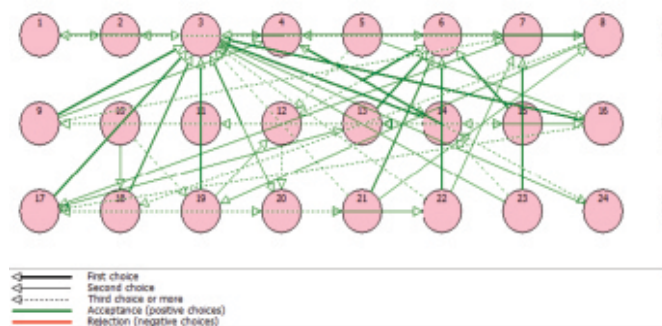


**Fig. 5 : Sociogram of Village-5**

Sociogram depicts in Fig. 5 that there were only three groups with more than ten persons and having more than four bridges. It was also found that six more people (respondent no. 3, 5, 6, 8, 9, 11) were popular among the respondents. Four respondents (respondent no. 12, 14, 18, 20) were categorized as neglected as no one considered them as their choice. Respondents who were 'popular' and 'liked more than dislike' were the members of a Self Help Group. The graphic presentation shows the respondent no. 9 had maximum choices, with a score of 49.

Village-6: In village-6, the intra village analysis of 24 respondents was done. The interpersonal communication network efficiency score was found to be 1.00. This shows that the existing interpersonal communication network efficiency of village was very low. The study village has number of group (4). Interpersonal communication network stability score was 1.0 which

indicates that the existing network was stable. The stability in the study village was due to the presence of many small groups on the basis of caste and geographical location and Self Help Group.



**Fig. 6 : Sociogram of Village-6**

Sociogram (Fig. 6) shows that there were only three groups with more than ten persons and having more than 8 bridges. It was also found that 5 more people (respondent no. 3, 4, 6, 7, 14) were popular among the respondents. Three respondents (respondent no. 5, 10, 23) were categorized as neglected as no one considered them as their choice. Respondents who were 'popular' and 'liked more than dislike' were the members of a Self Help Group. The graphic presentation shows the respondent no. 3 had maximum choices, with a sociometric score of 60.

Suitable and intensified awareness and training programme on importance of vegetable cultivation and their production technologies among the women farmers of the district. Improved and short duration of high Farm women had more dependency on communication stars of their villages. In such condition trainings for communication strategies on communication skills, empowerment and vegetable cultivation should be organized. The unavailability number of female extension workers was one of the problems observed in the extension services. Communication stars should be sensitized to work as an extension worker also. Jones, D. (2001) also reported that underpinning sociometric processes ensured participation was structured around exploring and building relationships and were successful in facilitating a measurable shift in relationships, encouraging team development and enabling the outcomes to be achieved. From the study it can be concluded that farmers believe much on their fellow farmers in matters of agriculture and related aspects. These results of the study were similar to the findings of Licht & Martin (2007), Lwoga, Stilwell, Ogbama (2010), Ngulube (2011), Okwu and Daudu (2011) and Jyothi, V. And Kumar, M.S. (2013).

### CONCLUSION

The study it can be concluded that farm women of the study area believed much on their fellow farmers in matters of agriculture and related aspects. They feel that fellow farmers i.e. key communicators give suggestions based on practical knowledge and experience. So, whenever extension personnel are to disseminate information to the farming community it is always beneficial to disseminate it through the key communicators. Stability in the village was due to the presence of many small groups on the basis of caste and geographic location. The policy planning should include efforts to respect the interpersonal communication and network among women and try to make it more stable and efficient to increase the smooth flow of information regarding new vegetable cultivation practices. Involvement of communication stars in formal training on vegetable cultivation in suitable time and place should be promoted so that they can support their family economy with their knowledge, skill and attitude also.

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