

Reciprocity among Farmers in Farming System Research: Application of Social Network Analysis

Rabindranath Jana¹, Suraj Bandyopadhyay^{1*} and Anil K. Choudhuri²

*¹Sociological Research Unit, Indian Statistical Institute, Kolkata, West Bengal, India
E-mail: rabindranathjana65@gmail.com*

²Sociological Research Unit, Indian Statistical Institute, Giridih, Jharkhand, India

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ABSTRACT In course of agricultural activities, farmers interact among themselves to fulfill different kinds of needs, such as getting advice regarding cultivation, obtaining appropriate seeds and plants, getting tools and implements, etc. On the basis of data to whom a farmer sends requests for such help and whether the farmer receives the required help, one can build a social network of help, whether simple or weighted, in agricultural production. The paper intends to study variation in measures of reciprocity among the farmers of the two villages in respect of different activities for agricultural production. For the study, two villages Madhya-Uttar and Astabari consisting of 88 and 79 households respectively were selected from unirrigated, rainfed area in the south-eastern region of the district of East Medinipur of West Bengal. To collect the required data, open-ended check lists were employed. A standardized graph theoretic measure (s_3 -measure) of reciprocity was applied to carry out social network analysis. In both the villages, values of reciprocity measures for seeds/plants and tools/implements exchange were more than that for advice giving; the measure for the network of agricultural activities as a whole was also greater than the network for social aspects. In case of all networks, values of s_3 -measure for the village Madhya-Uttar were much higher than Astabari. It indicates that the farming households of a network having greater value of s_3 -measure are more inter-dependent among themselves in agricultural production.