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Constraints of Linkages Among University Research-Extension and Farmers in India and Ethiopia : A Critical Analysis

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ABSTRACT

The present study focused on effectiveness of agricultural research-extension and farmer linkage in agricultural universities in India and Ehiopia. A total of 84 agriculture scientists of Punjab Agricultural University in India and 87 agricultural scientists of Hawassa University in Ethiopia constituted the sample in case of agricultural scientists, and 44 farmers from India and 34 farmers from Ethiopia constituted the total sample for farmers. Data were collected through especially designed interview schedule developed for the study. The major constraints for linkage among scientists and farmers in India were lack of proper policy, lack of funds and administrative problems (44.05%) and poor transportation facilities (41.67%). In case of Ethiopia, the major constraints were poor transportation facilities (19.54%) and workload of scientists (19.54%). The major constraints for linkage among extension workers and farmers in India were poor transportation facilities' (17.85%) and lack of finance/budget/funds (15.47%). In case of Ethiopia, the major constraints were inefficient and poor quality technology (27.58%) and lack of infrastructure (10.34%). As regards sources of information, the farmers received maximum farm information from friends and neighbours. In case of India (84.09%) and Ethiopia (82.35%), only a small proportion (13.63%) farmers in India participated in the research projects conducted by the agricultural universities while the corresponding figure in case of Ethiopia was only 5.88 per cent. Adoption of modem technologies developed by the agricultural universities was found in the case of 65 per cent of the Indian farmers and 25.53 per cent Ethiopian farmers. In India (53.33%) and Ethiopia (61.53%), farmers reported not being aware of technology as a reason for non adoption.

The lack of relevance of research is mainly due to poor linkages among research, extension and farmers. Various sub-systems of Agricultural Knowledge and Information System (AKIS) must work together in cooperation. There should be a two-way communication among research-extension and farmers and other sub systems. This will result in development and dissemination of appropriate technologies. In the context, improving the linkage among agricultural institutions, farmers and extension subsystems is of paramount importance. It is well understood that Agricultural Knowledge and Information System (AKIS) must work synergistically to fulfill the world stride of facing the triple challenges of sustained decrease in agricultural productivity, environmental sustainability, and poverty allegation, which can be aggravated by unfavorable and changing environment, world competition and rapidly growing technology. This requires using linkage as important tool of management for coordination and communication. For agricultural technologies to be relevant to local needs, researchers, extension workers and farmers must play joint roles in identifying research problems, adapting the recommendations to local conditions and providing feedback to researchers about the innovations that are developed. The present study was conducting with the specific objective of under comparative analysis. The problems and constraints of linkages among university research-extension and farmer in India and Ethiopia.

METHODOLOGY

The Kairon Kissan Club farmers in India and the

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Finchawuha farmers in Ethiopia were also included in the study. The study was conducted in two purposefully selected agricultural universities namely Punjab Agricultural University (PAU), Ludhiana, India and Hawassa University,Ehhiopia. In case of India the sample farmers were from Karion Kissan Club of Punjab Agricultural University. In case of Ethiopia, the sampled farmers were from university adopted village namely Finchawuha. The sample for the study compared of 84 agricultural scientists and 44 farmers from India, and 87 agricultural scientists and 34 farmers from Ethiopia. The sample random sampling technique was employed for drawing the samples. The data were collected with help of structured interview schedule developed for the study. Both closed ended and open ended questions were including in the schedule. The data were analyzed using the statistical test like frequency, percentage and rank ordering.

RESULTS AND DISCUSSION

The major constraints for linkage among research, extension and farmers in agricultural universities as perceived by scientists in India and Ethiopia were studied and results presented for different categories in the respective tables.

The data in Table 1 portray the constraints in linkage between scientists and farmers. The most important constraints as reported by 44.05 percent (Rank I) of respondents were lack of proper policy, fund and administrative problems. This was followed by other constraints such as poor transport facilities (41.67%, rank II) which hinders the mobility of the scientists in visiting the farmers field.

Table- 1 Constraints perceived by India scientists regarding linkage between scientists and farmers. (N=84)

Sl.No.	Constraints	Frequency	Percentage	Rank
1.	Work overload of scientists (teaching and extension)	19	22.62	III
2.	Farmers lack of interest	4	4.76	VI
3.	Poor transport! vehicle facilities	35	41.67	II
4.	Lack of proper policy, fund, and administrative problems	37	44.05	I
5.	Scientists lack practical experience	8	9.53	V
6.	Lack of linkage mechanism	10	11.90	IV
7.	Non availability of incentives for scientists	3	3.58	VII
8.	Background difference of scientists and farmers	3	3.58	VII

From the above findings it is inferred that there is an imperative need evolving suitable policy measures and providing funds, infrastructural and transport facilities.

The major constraints for linkage between scientists and extension workers as perceived by scientists in India were identified and the results are presented in Table-2.

The data in the Table 2 indicate the major constraint as reported by maximum respondents (34.52%, Rank I) were the lack of transport and office facilities for

Table -2 Constraints in linkage between scientists and extension workers as perceived by scientists in India (N=84)

S.No	Constraints	Frequency	Percentage	Rank
1.	Lack of transport/office facilities for extension workers	29	34.52	I
2.	Lack of cooperation among extension workers	5	5.96	VII
3.	Lack of budget and poor infrastructure	11	13.09	IV
4.	Poor training and knowledge of extension workers	24	28.57	II
5.	Work overload of scientists and no time for interaction	18	8.33	III
6.	Poor understanding among scientists and extension workers	7	1.19	V
7.	Existing mechanism not working well	1	1.19	VIII
8.	Background differences of extension workers and scientists	1	1.19	VIII
9.	Superiority complex of scientists	6	7.14	VI

extension workers followed by poor training and knowledge of extension workers (28.57%, Rank II). Work over load of the scientists in teaching, research etc was also found to be a major constraint as reported 21.43 percent (Rank III) of respondents. Therefore, the scientists had no time to interact with the extension workers.

From the above findings it can be concluded that communication between scientists and extension workers is the key for establishing effective linkage between the two. The scientists and extension workers should be bought to a common platform where they can discuss their problems and find solutions. Also there is an urgent need to provide infrastructural and transport facilities to the extension workers.

Table 3. Constraints for linkage between extension workers and farmers as perceived by scientists in India. (N=84)

S.No.	Constraints	Frequency	Percentage	Rank
1.	No regular meetings, workshops, conference	7	8.33	V
2.	Lack of poor coordination and planning	4	4.76	VII
3.	Lack of training and experience of extension workers.	12	14.29	III
4.	Lack of finance/budget/funds	13	15.47	II
5.	Administrative difficulties	3	3.57	VIII
6.	Work overload of extension workers	2	2.38	IX
7.	Poor transportation/vehicles for extension work	15	17.85	I
8.	Lack of motivation among farmers	7	8.33	V
9.	Superiority feeling of extension workers	3	3.57	VIII
10.	Lack of incentives for extension workers	5	5.95	VI
11.	Poor communication and language problems	11	13.09	IV

The constraints in linkage between extension workers and farmers are depicted in Table -3. The linkage between extension workers and farmers IS very important to help farmers practice innovative technologies in their fields. The major constraint for linkage reported by majority of the respondents as per table 3 was poor transportation facilities for extension workers (17.85%, Rank I) followed by lack of finance (15.47%, Rank II) and lack of training and experience of extension workers (14.29%, Rank III). Another 13.09 percent (Rank IV) respondents attributed poor communication and language problems between extension workers and farmers as a constraint in establishing linkage.

The above finding suggest that the extension workers need to be encouraged to interact with the farmers on a regular basis and incentives must be given to them to boost their morale. Similarly farmers should also be motivated to discuss their problems with the extension workers.

Table 4. Constraints for linkage between scientists and farmers as perceived by scientists in Ethiopia. (N=87)

Sl.No.	Constraints	Frequency	Percentage	Rank
1.	Poor institutional framework and lack of strategy	10	11.49	VI
2.	lack of interaction, forum, communication and information	19	21.83	I
3.	Poor transport/vehicle facilities	17	19.54	II
4.	Work overload of scientists	17	19.54	II
5.	Lack of incentives for researchers	3	3.45	IX
6.	Absence of efficient extension workers	5	5.74	VIII
7.	Lack of funds/budget	12	13.79	V
8.	Researchers under estimate farmers	14	16.06	IV
9.	Research system is not responding to farmers and is not need based	16	18.39	III
10.	Researchers lack of understanding of farming system in local areas	8	9.19	VII

In the case of Ethiopia, the different constraints in linkage between scientists and farmers as given in the table - 4. The most important constraint in establishing linkage as reported by 21.83 percent (Rank I) respondents was lack of proper interaction forum, followed by lack of communication and information between the scientists and farmers (Table 4). This was followed by other constraints like poor transport facilities (19.54%, Rank II) which hinders the mobility of scientists in visiting farmers fields, work overload of scientists (19.54%, Rank II) which left them with no time to interact with farmers, and research system not responding to farmers needs (18.39%,Rank III). Around 16.06 percent (Rank IV) respondents attributed poor linkage to the researchers under estimation of farmers' capabilities resulting in communication gap. From the above findings, it can be concluded that to improve the linkage between scientists and farmers it is necessary to evolve suitable policy measures and provide better infrastructural and transportation facilities to scientists. Also greater emphasis should be given to research which responds to farmers needs and scientists need to be more aware of farming systems in the local areas.

Table 5. Constraints for linkage between scientists and extension workers as perceived by scientists in Ethiopia. (N=87)

Sl.No.	Constraints	Frequency	Percentage	Rank
1.	Poor evaluation and discussion about research result	6	6.89	V
2.	No say of extension workers in research work	10	11.49	III
3.	Inferiority complex of extension workers	3	3.45	VII
4.	Non cooperation of extension workers	11	12.64	II
5.	Less number of extension workers, low capacity and bias towards research work	11	12.64	II
6.	Lack of strong institutional mechanism	12	13.79	I
7.	Lack of coordination and planning	11	12.64	II
8.	Lack of common goals and responsibility	3	3.45	VII
9.	Limited budget/funds	7	8.04	IV
10.	Workload of scientists	5	5.74	VI

The constraints in linkage between scientists and extension workers in Ethiopia are presented in Table - 5. The date in Table 5 indicate that lack of strong institutional mechanism was described as a major constraint by maximum respondents (13.79%, Rank I) followed by non-cooperation of extension workers (12.64%, Rank 11),

lack of coordination and planning (12.64%, Rank 11) and biased attitude of extension workers towards research (12.64%, Rank 11). Generally the extension workers do not have a say in research work. This was also attributed as a major constraint in establishing effective linkage between scientists and extension workers by 11.49 percent respondents (Rank III). Therefore, in order to establish effective linkage between scientists and extension workers, the scientists need to make an effort to involve the extension workers in their research work. The extension workers also should communicate freely with the scientists so that they can discuss their problems and find solutions.

The major constraints for linkage among extension workers and farmers in Ethiopia were studied and the results are given in Table 6.

The data in Table -6 portrays several constraints in establishing effective linkage. The most important constraints as reported by maximum respondents (27.58%, Rank I) were inefficient and poor quality technology followed by lack of appropriate extension approach and service (14.94%, Rank II) and lack of infrastructure and poor institutional arrangement (10.34%, Rank Ill). Lack of motivation by extension workers and farmers lack of interest was also reported by 10.34 percent (Rank III) respondents. These finding imply that for improving linkages between extension and farmers the extension workers should make efforts, conscious to motivate the farmers. Communication between the two is the key to establish linkage. Also suitable and appropriate policy measures should be evolved to improve infrastructural facilities.

Table 6. Constraints for linkage between extension workers and farmers as perceived by scientists in Ethiopia (N=87)

Sl.No.	Constraints	Frequency	Percentage	Rank
1.	Research and extension work is not based in farmers and farming problems	6	6.89	IV
2.	Lack of infrastructure and poor institutional arrangement	9	10.34	III
3.	Biased attitude of extension workers towards farmers	4	4.59	VI
4.	Lack of communication and information	4	4.59	VI
5.	No appropriate extension approach and service	13	14.94	II
6.	Poor monitoring and evaluation	5	5.74	V
7.	Inefficient and poor quality technology	24	27.58	I
8.	Farmers lack of interest and no motivation by extension workers	9	10.34	III
9.	Remoteness and distance between extension workers and farmers	2	2.29	VII

CONCLUSION

The major constraints perceived by the scientists in India regarding linkages were lack of proper policy, fund and administrative problems (between scientists and farmers); lack of transport/ office facilities for extension work (between Scientists and Extension workers; and poor transportation facilities for extension work between extension workers and farmers. The major constraints for linkages perceived by scientists in Ethiopia were lack of interaction, communication and information. (between scientists and farmers); lack of strong institutional mechanism (between and extension workers); and inefficient and poor quality technology (between extension workers and farmers). Hence, these constraints need to be addressed for effective linkages among research, extension and farmers systems.

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