# BUILDING SOCIAL CAPITAL AND LEARNING FOR LIVELIHOOD: Tech MODE Breaking Barriers

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#### Introduction

This paper focuses on discussing Technology Mediated Open and Distance Education (Tech MODE) in the context of Lifelong Learning for Farmers Project of COL. It argues that social capital is a pre-requisite for a learning community. With a strong cognitive social capital, the potentials of strengthening horizontal transfer knowledge is immense. Modern ICT tools such as mobile telephony can help to enhance the horizontal transfer of knowledge. Such technologies can help to support Social Learning Capital which could emerge from the integration of social capital, Informal Lifelong Learning and Quality Learning Conversations. The paper argues that such an approach could offer a new paradigm for extension and human resource development in developing countries.

#### **Issues in Extension**

The rural communities in the developing world are at crossroads. Abstract concepts like globalization, liberalization, removal of trade restrictions etc have become concrete field realities through policies, programmes and market relationships. The globalization process and the role of World Trade Organization (WTO) have changed the characteristics of the markets, which the farmer in a developing country hitherto has been unaware of. The dynamics of international market are not only influencing exports but are also capable of changing the structure and function of local markets. particular, globalization has been accused of leading to feminization of poverty. One of the UN reports argues that Women in the agricultural sector have also been adversely affected by the promotion of export-oriented economic policies, trade liberalization and TNCs' activities in agriculture-related industries. Emphasis on export crops has displaced women workers in certain countries from permanent agricultural employment into seasonal employment. Subsistence farming has been severely affected in the new economic environment, leaving women farmers to seek seasonal employment (ECOSOC, 2000). On the other hand institutions like World Bank points out that there is compelling evidence that globalization has played an important catalytic role in accelerating growth and reducing poverty in developing countries (World Bank, 2000). Many scholars argue that since globalization is here to stay, there is a need to strengthen the process of adaptation to globalization process. World Bank recommends (2000:10) to enhance the capabilities of the poor, particularly through the improved provision of education and health, which are fundamental to well-being and which promote participation in market opportunities.

The extension systems in the developing countries are meant for enhancing the capabilities of the poor for strengthening their livelihood opportunities. However as one of the UN report warns, in most LDCs, the institutional capacity for research and extension is weak. As a result, the technology available is insufficiently adapted to local conditions and research results do not come up with a variety of technological solutions adapted to the range of socio-economic and agro-ecological conditions existing in the country, such as the differing technical needs of female and male farmers (FAO, 2007).

The critical perspectives of extension in developing countries deal with the quantitative and the qualitative aspects of the extension system. From a quantitative perspective, in India, the intensity of public investment in extension is 0.15 per cent of AgGDP. Adding to this private extension investment gives the intensity of 0.2 per cent, which is also very low compared to other countries (ICAR, 1997). The declining strength in staff and infrastructure are often cited reason for the poor response of extension towards globalization. However, experts have voiced concern more towards the qualitative aspects of extension in developing countries.

## Suliaiman and Holt (2002) argue

The basic issue underpinning many of these has been the lack of a clear articulation of what should be the role of extension in the Indian context. Public sector extension has to look beyond TOT models. With the changing development agenda, extension in India will have to devise strategies for facilitating poor to pursue broader livelihood options in onfarm and non-farm sectors so that their vulnerability could be reduced.

According to Raina and Sulaimann (2007:179), knowledge production is moving steadily from Mode 1 (generated within a disciplinary context, governed by linear rules, in distinct organizations) to Mode 2 (created in broader transdisciplinary contexts, in a non-linear fashion, in networks/ groups of actors who take on different roles in generation, modification utilization etc of knowledge/technology).

Roling (1988) has developed a framework in terms of Structure, Institutions and the Process, the three dimensions which form the basic premise for extension. The structure consists of two systems; an agricultural knowledge system and an agricultural information system. According to Roling, an agricultural knowledge system is "a system of beliefs, cognition, models, theories, concepts, and other products of the mind in which the (vicarious) experience of a person or group with respect to agricultural production is accumulated" (1988:33). He defines an agricultural information system as "a system in which agricultural information is generated, transformed, transferred, consolidated, received, and fed back in such a manner that these processes function synergically to underpin knowledge utilization by agricultural producers" (1988:33).

He defines the process in terms of five crucial elements; Mobilization, Organization, Training, Technical support and System Management. He stresses the need for an institution in terms of an 'active utilizer constituency' which "makes demand upon the system and can exert a leverage" (1988:146) Such an active constituency can force the knowledge and information system to serve the needs of the members of the constituency.

With such a structure, institution and process, the transformation of information into farmers' behaviours or behavioral objects is possible through horizontal transfer of knowledge. Horizontal transfer of knowledge is the community's efforts to explore the issues involving various stakeholders, study the relevance of various options, develop a process of sharing the insights and reaching consensus and apply them for improving the livelihood security.

The active utilizer constituency of Roling and Mode 2 referred by Raina and Sullaiman indicate the need for perceiving the role of social capital in extension and human resource development.

## Social Capital, Lifelong Learning (L3) and Extension

Recognition of the role played by social capital in economic and social development has grown in recent years. OECD (2001:41) describes social capital as the 'networks together with shared norms, values and understandings that facilitate cooperation within or among groups'. Coleman(1988) describes it as "productive potential" which is derived from relationships between actors. Substantial number of studies have linked the role of social capital in economic development. As a resource embedded in relationships among people it strengthens and facilitates cooperation, reciprocity, risk-sharing in a collective form through norms, values, rules and regulation and there by stimulates economic growth and social development (World Bank 1988, Putnam, 1993). Two types of social capital are generally referred to: structured social capital and cognitive social capital. Structured social capital refers to the roles, rules, procedures and networks that facilitate information-sharing, collective action and decision-making through established roles. Cognitive social capital is measured by trusts and norms generated from cognitive and inetarctive processes and reinforced by trust, reciprocity, collective-identity, shared norms, beliefs and recognitions that contribute mutually beneficial collective action. Cognitive social capital emerges from continuous interactions, dialogues and debates.

Lifelong Learning (L3) is the informal and formal process of continuous learning. In particular it has the following characteristics (Baker, 2006).:

Non-formal learning is where learners choose what they want to learn, either inside or outside a formal organisational setting, may be one-off, voluntary and not credentialed;

Informal learning enhances community capacity building through community ownership; learning for the love of learning, and happens through social and community organisations to meet the needs of individual learners with individual life circumstances.

Integrating social capital and Lifelong Learning (L3), Baker (2006) has derived a concept of Social Learning Capital (SLC) which refers to *certain* social connections, networks and relationships acting as a resource to help people to access knowledge and advance their learning through co-operation with others, over time. There are lot of similarities with Roling's Active Utilizer Constituency, Mode 2 referred by Raina and Sullaiman and Baker' Social learning Capital. They refer to the need of mobilizing collective norms for enhancing learning and extension.

## Tech MODE, and L3: Approach of COL

Modern information and communication technology (ICT) in recent times has shown signs of offering scope for strengthening extension systems. Government of India (GOI) through Indian Council of Agricultural Research (ICAR) has been emphasizing the need for promoting ICT based knowledge revolution to strengthen the agricultural sector. Programmes such as *Mission 2007- Every Village a Knowledge Centre*, *Community Service Centres* of Department of Information Technology, Government of India and initiatives of various state governments, corporate sectors and non-governmental organizations focus on brining ICT to the door steps of small and marginal farmers, agricultural laborers, fishing and forest based communities to usher knowledge revolution and strengthen the extension system. However, issues such as content, connectivity, community involvement, financial and economic viability etc have been posing major problems. ICT offers scope for strengthening the development process, if these issues are adequately addressed.

The modern information and communication technology (ICT) has given a new dimension to open and distance learning and COL has perceived a framework for Technology Mediated Open and Distance Education and Learning (TechMODE). It firmly believes that modern information and communication technologies can help in reaching the unreached in a spatial-temporal context and facilitate a self-directed learning among farmers, landless laborers and various marginalized sections of the rural and urban communities. It also believes that such learning should take place in the context of the entire social and economic value chain of the rural society.

COL has developed a framework for Lifelong Learning (L3) Farmers Project, by which an attempt is being made to reach millions of small farmers and marginalized sections of rural community in Africa, South Asia and Small Islands. Using Open and Distance Learning (ODL) and ICT, the project aims at developing self-sustaining institutional framework for building the capacity among farmers, landless laborers and extension officials which could help them in developing value-added farming, encourage more sustainable use of natural resources, strengthen their ability to face globalization, and ensure food and livelihood security. The concept envisages a global and local partnership

between research institutions, extension agencies and farming communities. The framework of L3 is integrated with livelihood strategies, micro-entrepreneurship and bank credit.

## The study

COL has been involved with universities, research institutions and NGOs in initiating pilot projects on Tech MODE based L3 in various Commonwealth countries. One such project has been initiated in southern part of India, with an NGO called VIDIYAL. VIDIYAL has a federation of 239 women SHGs which has evinced keen interest in goat and sheep rearing and L3 activities.. The federation has identified this enterprise as viable enterprise for the region. Nearly 300 women from SHGs have become partners and they would undergo ICT based training in various aspects of goat and sheep rearing during the project period. They would present a viable business proposal and credit plan to a bank called Indian Overseas Bank (IOB) on the basis of which the bank would consider supporting the women with credit. COL and VIDIYAL believes that formal training and the resultant self-directed learning would enable them to run viable enterprise and repay the credit without any Non Performing Assets. Such an approach would encourage banking sector to support L3 as a business strategy. The region falls in the Bodi block of Theni district a semi arid region in the foothills of Western Ghats. Agriculture is a big gamble due to severe wind erosion and sand deposition which take place through the gaps of western ghats.

The SHG movement of VIDIYAL has been taking place for more than 10 years and the annual turnover of credit and saving among the 4000 women is nearly Rs. 50 million. The strong SHG movement indicate not only a structured social capital, but also a cognitive social capital. SHGs are graded by various governmental institutions. Such grading are based on regular meetings, decision making processes, cooperation, conflict resolution mechanisms etc which reflect the cognitive social capital. Marks are awarded for the SHGs once in six months. Out of 239 SHGs, 234 SHGs have more than 75% marks indicating that they have been regular in managing their assets. The other five SHGs have scored between 65% to 74%. These high marks indicate a strong collaborative mode which could emerge only through a strong cognitive capital. Also most of SHGs are based on kinship and neighborhood relationships. In a year, an SHG meets 12 times with each meeting lasting for than three to four hours. In addition, these SHGs also organize local functions, take up local issues with various governmental and non-governmental agencies. They also interact at the federation level.

## The Objectives of the Study and the Methodology

The objectives of the study are as follows:

- 1. to study the relationship between social capital and self-directed learning
- 2. to evolve a framework for integrating the concepts of social capital in Tech MODE based L3

The 239 SHGs are spread over 25 villages. These 25 villages have nearly 13,000 households among which nearly 3500 households have SGH members. There were other SHG and cooperative movements in these villages, which have become defunct during last five years. VIDIYAL, as part of the project decided to conduct a baseline survey covering SHG members and non-SHG members. The survey was meant for defining the roadmap for the project as well as for monitoring and review purpose. In addition, it also conducted series of Participatory Rural Appraisal (PRA) both among SHGs and among non SHG households. This study is based on the base line survey and PRAs conducted by VIDIYAL.

The methodology for the survey was developed by SHG members through PRA exercise. The survey questionnaire was evolved in consultation with the SHG members and data were collected by them. A stratified random sampling covering three strata of the households identified 355 female respondents . Around 330 women SHG members had expressed interest in goat rearing and L3 project. Among them, 63 househo were selected at random and the questionnaire was canvassed (Group I). Among the SHG members who are not involved in the goat rearing and L3 project , 101 respondents were identified (Group II). Among the non-SHG households 191 respondents were identified (Group III). These household were identified in a random manner in the federation meeting. The questionnaire was pilot tested and some of the SHG members were trained in canvassing the questionnaire. The study focused on the opinions and attitudes of respondents towards learning. The study has used only simple tools of statistics. Considerable numbers of respondents in the study have not answered certain questions. Attempts are being made to identify the causes for such responses.

## Findings of the Study

#### Socio-Economic Characteristics

Substantial number of the respondents do not have any school education. There are no significant differences in terms of education among the three groups (Table 1). However, in terms of primary occupation, landless agricultural labourers are more in the Group I. Informal sector activities are more in Group II and Group III (table 2). In all the three groups considerable numbers of respondents have not been answered questions regarding definite primary employment.

It is interesting to note that while some of the respondents have hesitated in answering queries regarding employment and occupation, no such hesitation could be seen in answering income related questions. In the first group only around 8% have annual income less than Rs. 12,000 (which is Below Poverty Line or popularly known as BPL). The federation, while selecting the participant list for the project gave focus on members with some limited income and asset potentials. However nearly 40% of the group I have income less than Rs. 20,000. It could be seen that around 35 to 50% of the respondents in all the three groups have household annual income less than Rs. 20,000 (Table 3).

In terms of movable and immovable assets, the SHG members in Group I and Group II seem to be having more assets when compared to Group III. Group I which has substantial landless laborers seem to have saved substantial assets with each asset valued more than Rs. 100000. During PRA, it was mentioned that most of the assets have been generated through savings and credit of SHGs (Table 4). The dimensions of borrowings from SHGs are reflected in Table 5 and Table 6. Nearly 61% of the respondents in Group I and 45% of respondents in Group II have borrowed loans up to 20% of the value of their movable and immovable assets. These loans have been borrowed mainly for income generation and asset creation activities. The interest rates for borrowing within groups range from 12 to 16% where as borrowing from banks are around 7 to 11%.

## Goat Rearing and Learning

The Group I which is interested in goat rearing has nearly 44% of the respondent households with goats. In contrast, Group II has lesser number of households with goats. Group III which is the non-SHG group has also substantial number of household with goats ( Table 7). The respondents were asked to assess their knowledge regarding various aspects of goats. Substantial numbers of respondents have claimed some amount of knowledge in various aspects of goat rearing. The interesting aspect is that among the respondents in Group I , 30 to 35 % have claimed good knowledge in goat rearing. Group II and III have only limited claims of good knowledge (Table 8, 9 and 10) .

The respondents were asked to identify the primary source of their present learning in goat rearing Table 11 and 12). Majority of them claimed learning from family, neighborhood and community as the primary source of learning. In particular Group I has given a strong focus from learning from family, neighborhood and community when compared to Group III. The role of formal learning in the present learning process is very limited. In terms of preferred source of learning, learning from family, neighborhood and community has been given prime importance by Group I (Table 13).

#### Technology and Horizontal Transfer of Knowledge

The PRA as well as the survey revealed that very few respondents know about the usage of computers and internets. But the response for mobile phones was substantial. The federation and SHGs have been discussing the potential usage of mobile phone in credit transactions as well as managing the goat rearing project. Around 71% of the respondents

have pointed out that the mobile phones would be of importance to them. In contrast, respondents in Group III have found limited relevance for mobile phones among goat rearers (Table 14). Group I respondents have claimed that mobile phones would help in sharing information on market as well as in emergency management (table 15). The Group I had requested the federation to develop a business and credit plan with a strong role for mobile phones. The women would be buying the phones using the credit from the project. During PRA, some of the members of the Group I were asked about using mobile phones for general and social conversation. They said such usage would not be financially viable since they have to pay for the "talk time". They have requested VIDIYAL to develop the learning materials in Voice Mail and send it to them on a daily basis. Being illiterate, many of them feel that voice mail would be convenient mode of learning. Also, since most of the goat rearers are on constant move, mobile phones would help to keep inconstant touch with the groups. They also pointed out that the negotiations within SHGs and between SHGs could also be done with the help of the phones.

#### **Overview**

The majority of the participants in the goat rearing projects are from landless agricultural labourer families. Animal husbandry, particularly goat and sheep rearing have always been a vulnerability coping strategy among these groups. Hence there is no surprise that this group would be one of the important players in the project. Since most of the landless labourers come from specific caste and social groups and since many SHGs are organized along these lines, there is a strong cohesive framework among them. Institutionally, SHGs have provided them with opportunities for constant formal and informal interactions. Such an interaction is bound to strengthen the cognitive social capital among them.

Family, neighborhood and community have always been the constant source of learning. In the present project, this primordial group has been identified as the most preferred source of learning. They have identified mobile phones as a tool for extending the canvass of family, neighborhood and community for sharing information.

One of the earlier projects of COL (Balasubramanian et al, 2000) has identified the strengths of community based learning. Roling (1988:113) quotes Gelia Castillo, who had pointed towards the example of a conventional training in which the participating farmers 'recalled only 7% of the messages transmitted to them'. In contrast, the participating farmers and labourers in in this earlier CO Project were able to recall more than 75% of the messages (Balsubramnian et al) 2000). Participatory and interactive learning, constant interaction between the partners, "learning by doing" and follow-up activities were some of the factors influencing the high rate of recall. The project also pointed out contributions of resource persons from the community in strengthening the horizontal transfer of knowledge. These resource persons act as message bearers for transferring the knowledge within the community. However, for such transfer, strong

community based institutional arrangements are required. SHGs with focus on cognitive social capital offer such institutional arrangements.

While the conventional Information Communication Technology for Development (ICT4D) approach has always been based on desktop and laptop computers, the women in the project have identified mobile phone. Baker (2006) argues

The concept of Social Learning Capital is created through Interlinking social capital, informal lifelong learning and the idea of quality learning conversations. Social Learning Capital is the meshing of social capital and lifelong learning that reaches its potential through quality learning conversations.

The women in the project village have identified mobile phone as a tool for enhancing the learning conversations. The survey has pointed out that substantial amount of learning takes place in family, neighborhood and community. According to the PRAs, conversation and interaction in SHGs, families and neighborhood are the primary base for learning in the village. In particular, in SHG meeting, motives and agendas of every participant is questioned, discussed and debated. VIDIYAL has focused on strengthening such debates. The sub-federation and federation of SHGs some time intervene in the debate of the SHGs to strengthen the discourses. Learning is enhanced by five dialectical dimensions of conversation engaging at the same time. Through these dialectical dimensions, certain social connections are formed (Baker et al, 2002).

Apprehension and Comprehension – experience and knowing
Reflection and Action – intention and extension
Epistemological and Ontological discourse – doing and being
Individuality and Relationality – conversation as inside-out and outside-in interpersonal experiences
Status and Solidarity – power (ranking) and intimacy (linking)

A detailed framework for operatioanlizing the five dialects has already been developed by Baker (Baker et al, 2000). The Tech MODE should focus on promoting these five dialectical dimensions of quality conversation as a base for horizontal transfer of knowledge and bridging social capital. Such an approach would also help to overcome the possibility of negative social capital (which arises out of strong bondage within a group without offering scope for interacting with heterogeneous groups).

In a country like India, where mobile telephony is spreading fast (One in four has mobile phones and is still growing) and where SHGs are being promoted as government policy, the human resource development and extension could focus on building Social Learning Capital by interlinking social capital, informal lifelong learning and promoting quality learning conversations. This could be the future perspective of Tech MODE.

## Annexure 1: Tables

Table 1: Education Level of the Respondent (% of Respondents)

No	Education Level	Group I	Group II	Group III
1.	No School Education	58.7	52.5	69.1
2.	Primary School Education	17.5	22.8	10.5
3.	Middle School Education	20.6	16.8	10.5
4	Secondary School Education	3.2	7.9	5.20
5	Higher Secondary School Education	0	0	2.6
6	College, Post-school diplomas	0	0	2.1
		100	100	100
	N	63	101	191

Table 2: Primary Occupation of the Respondent ( % of Respondents)

No	Occupation	Group I	Group II	Group III
1.	Landless Agricultural Labourer	52.4	27.4	21.9
2.	Salaried	3.2	1.5	2.6
3.	Informal sector Activities	22.2	36.4	38.9
4	No Answer	22.2	34.7	36.6
		100	100	100
	N	63	101	191

Table 3 : Annual Family Income of the Respondents (% of Respondents)

No	Annual Family Income	Group I	Group II	Group III
1.	Less than Rs. 12000	7.9	18.8	14.7
2.	From Rs. 12001 to Rs. 20000	39.7	19.8	36.1
3.	From Rs. 20001 to Rs. 30000	14.3	20.8	17.8
4	From Rs. 30001 to Rs. 50000	17.5	24.8	16.8
5	From Rs. 50001 to Rs. 100000	15.9	11.9	9.4
6	Above Rs. 100001	4.7	2.9	2.6
7	No answer	0	1.0	2.6
		100	100	100
	N	63	101	191

Table 4: Movable and Immovable Assets Among Respondents ( % of Respondents)

No	Value of Asserts in Indian Rs.	Group I	Group II	Group III
1.	No Asset	1.6	1.9	12.0
2.	Assets less than Rs. 20000	7.9	18.0	12.0
3.	Assets between Rs. 20001 and Rs. 50000	4.8	16.8	16.2
4	Assets between Rs. 50001 and Rs. 100000	19.0	26.7	22.5
5	Assets above Rs. 100001	66.7	36.6	31.9
6	No Answer	0	0	5.4
		100	100	100
	N	63	101	191

Table 5: Proportion of Loans from SHGs to Total Movable and Immovable Assets ( % of Respondents)

No	% of Loans to Total Assets	Group I	Group II	Group III
1.	0	17.5	13.9	NA
2.	Less than 10%	44.4	26.7	NA
3.	10.1 % to 20%	17.5	19.8	NA
4	20.1 % to 50%	9.5	11.6	NA
5	50.1% to 75%	6.3	8.6	NA
6	75.1 % to 100%	0	4.6	NA
7	Above 100.1 %	4.8	14.8	NA
		100	100	NA
	N	63	101	191

Table 6: Reasons for Borrowing Loans from SHGs ( % of Respondents)

No	Reasons for Borrowing	Group I	Group II	Group III
1.	Income Generation	20.6	23.9	NA
2	Education	3.2	4.0	NA
3	Health	0	0.9	NA
4	Food and Nutrition	4.8	0.9	NA
5	Family Functions	17.4	19.8	NA
6	Buying Assets	34.9	34.6	NA
7	Not Borrowed	3.2	4.0	NA
8	No Answer	15.9	11.9	NA
		100	100	NA
	N	63	101	191

Table 7 : Number of Households with Goats ( % of Respondents)

No		Group I	Group II	Group III
1.	Households with Goats	44.4	27.7	39.8
2.	Households without Goats	55.6	71.3	58.6
3.	No Answer	0	1.0	1.6
		100	100	100
	N	63	101	191

Table 8: Knowledge About Goat Among Group I ( % of Respondents in Group I)

No	Subject	Very Good	Good	Some	Do	No	Total
	-	Knowledge	Knowledge	Knowledge	Not	Answer	
					Know		
1	Buying Goats	7.9	25.4	46.1	11.1	9.5	100
2	Disease	11.1	20.6	38.1	14.3	7.9	100
	Management						
3	Fodder	17.5	22.2	52.4	0	7.9	100
	Management						
4	Marketing	14.4	20.6	49.2	7.9	7.9	100
5	Breed	14.4	20.6	53.9	3.2	7.9	

Table 9: Knowledge About Goat Among Group II (% of Respondents in Group II)

No	Subject	Very Good	Good	Some	Do	No	Total
		Knowledge	Knowledge	Knowledge	Not	Answer	
			_		Know		
1	Buying Goats	1.9	6.9	54.5	10.0	26.7	100
2	Disease	1.0	4.9	53.5	12.9	27.7	100
	Management						
3	Fodder	1.0	4.9	63.5	3.9	26.7	100
	Management						
4	Marketing	1.0	6.9	61.5	3.9	26.7	100
5	Breed	1.9	4.9	65.5	1.0	26.7	100

Table 10: Knowledge About Goat Among Group III (% of Respondents in Group III)

No	Subject	Very Good	Good	Some	Do	No	Total
		Knowledge	Knowledge	Knowledge	Not	Answer	
					Know		
1	Buying Goats	3.1	4.7	47.2	9.4	35.6	100
2	Disease	1.6	2.1	48.2	13.5	34.6	100
	Management						
3	Fodder	4.7	4.7	55.4	1.6	34.6	100
	Management						
4	Marketing	3.7	4.7	53.9	3.1	34.6	100
5	Breed	4.2	2.6	54.9	3.7	34.6	100

Table 11: Primary Important Source of Learning on Disease Management of Goats ( % of Respondents)

No	Sources of Learning	Group I	Group II	Group III
1.	Media based Learning	1.6	0	0
2	Learning from Family, Community &	65.1	41.6	41.3
	Neighborhood			
3	Formal learning and Training	14.3	9.9	7.4
4	Others	0	1.0	0.5
5	No Answer and Not Applicable	19.0	47.5	50.8
		100	100	100
	N	63	101	191

Table 12: Primary Important Source of Learning on Fodder Management of Goats ( % of Respondents)

No	Sources of Learning	Group I	Group II	Group III
1.	Media based Learning	3.2	0	0
2	Learning from Family, Community &	84.1	62.5	58.1
	Neighborhood			
3	Formal learning and Training	0	0	0.5
4	Others	1.6	0.9	4.2
5	No Answer and Not Applicable	11.1	36.6	37.2
_		100	100	100
	N	63	101	191

Table 13: Preferred Source of Learning for Livelihood ( % of Respondents)

No	Sources of Learning	Group I	Group II	Group III
1.	Media Based Learning	0	2.0	0
2	Learning from Family, Community &	62.0	34.7	36.1
	Neighborhood			
3	Formal Learning and Training	22.2	31.7	19.9
4	Others	6.3	6.9	1.6
5	No Answer	9.5	24.7	42.4
		100	100	100
	N	63	101	191

Table 14: Importance of Mobile Phones for Goat Rearers ( % of Respondents)

No	Mobile Phones	Group I	Group II	Group III
1	Very Important for Goat Rearers	17.5	3.0	3.7
2	Important For Goat Rearers	54.0	49.5	15.2
3	No Answer	15.9	30.7	58.1
4	Not important	12.6	16.8	23.0
5	Unnecessary Expenditure	0	0	0
		100	100	100

Table 15: Preferred Usage of Mobile Phones ( % of Respondents)

	Mobile Phones	Group I	Group II	Group III
1	For Learning	1.6	0	2.2
2	For Sharing Market information, Taking	52.4	29.7	12.6
	Decisions and Emergency Management			
3	For Social and General Conversations	0	0	1.0
4	No answer or Not Applicable	46.0	70.3	84.2
5		100	100	100
	N	63	101	191

#### REFERENCES

Baker, Deirdre, 2006 Social Learning Capital – Interlinking Social Capital, Lifelong Learning and Quality Learning Conversations, Paper delivered at the Adult Learning Australia Conference, Melbourne, http://www.ala.asn.au/conf/2006/papers/non%20refereed%20pap ers/V.2.%20SLC%20ALA%20Conf%20paper.pdf Balasubramanian. K, Social differentiation in the horizontal transfer of knowledge: A P.Thamizoli case study from South India, The Journal of agricultural Education and Extension, 2003, vol. 9, no 2, pp. 51 - 60 Social Capital in the Creation of Human Capital, American Coleman, James, S, 1988 Journal of Sociology, 94:95-120 The Realization of Economic, Social and Cultural Rights: ECOSOC, 2000 Globalization and its Impact on the Full Enjoyment of Human Rights, http://www.unhchr.ch/huridocda/huridoca.nsf/(Symbol)/E.CN.4.S ub.2.2000.13.En?Opendocument FAO, 2007 Globalization, Agriculture and the Least Developed Countries, Issues paper presented in the United Nations Ministerial Conference of the Least Developed Countries, Istanbul, Turkey, 2007 http://www.unohrlls.org/UserFiles/File/LDC%20Documents/Turk ey/20June07-Agriculture-Final.pdf ICAR, 1997 Investments in Agricultural research, Extension and Education, http://www.ncap.res.in/upload\_files/policy\_paper/pp7\_chapter3.p df OECD, 2001 Wellbeing of Nations, The Role of Human and Social Capital, OECD. Paris Putnam, R, 1993 Making democracy work. In Kilpatrick, S., Field, J. and Falk, I. (2001) Social Capital: An Analytical Tool for Exploring Lifelong Learning and Community Development www.crlra.utas.edu.au/files/discussion/2001/d13-2001.pdf Rajeswari S. Raina, From Technology Development and Dissemination to Learning Rasheed Sulaiman Approaches: Institutional Change for Rural Development in V. 2007 Vishwa Ballabh (edt). Institutional Alternatives and Governance of Agriculture, Academic Foundation, New Delhi, 173-207 Roling, Neils, 1988 Extension Science, Information System in Agricultural Development. Cambridge University Press: Cambridge

Suliaman Rasheed,V., Georgina Holt , 2002 Extension, Poverty and Vulnerability in India, Working Paper

154, ODI: London

World Bank, 1998

The initiative on defining, monitoring and measuring social capital: Overview and program description. In Kilpatrick, S., Field, J. and Falk, I. (2001) Social Capital: An Analytical Tool for

Exploring Lifelong Learning and Community

Development,

www.crlra.utas.edu.au/files/discussion/2001/d13-2001.pdf

World Bank, 2000

Poverty in an Age of Globalization,

http://www1.worldbank.org/economicpolicy/globalization/docum

ents/povertyglobalization.pdf