

(Draft only)

“Scaling up” Life Long Learning of Farmers (L3F): Expanding the horizon and empowering the communities, experiences from India

P.Thamizoli[®] and K.Balasubramanian[†]

The paper discusses the results and lessons learned in the mobile based Life Long Learning of Farmers (L3F) project implemented in Tamil Nadu, India. The methodology designed and plan developed to replicate/scaling up the results of the project horizontally and vertically – at district level through meetings, dialogue and policy influence. The other aspects covered are enabling factors and constraints faced. How the emerging results have increased the ownership of the major stakeholders. The paper also shares the ongoing efforts/ strategy for scaling up to achieve results at state/national levels particularly with in banking sector and progress made till now.

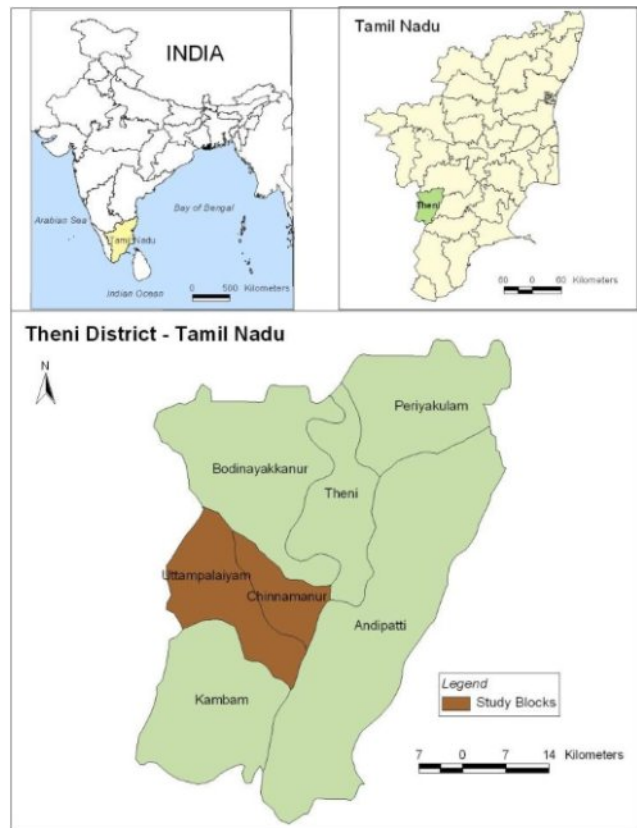
Introduction: The vision of the L3F is to evolve a self-replicating and self-sustaining programme in Lifelong Long Learning among rural communities using modern ICTs. The objective is to facilitate a process and system of “Life Long Learning” in rural communities leading to knowledge empowerment, particularly among women and other poor sections of the community. COL has been facilitating the implementation of the Life Long Learning (L3F) Farmers initiative in several of the commonwealth countries, by which an attempt is being made to reach a large number of small farmers and other marginalized sections of rural communities. In L3F ‘Learning occurs within the contexts of authentic tasks, issues, and problems that are aligned with real world concerns (Bidokht, 2010). The individual learners are equipped with the skills, necessary to self organize and self manage the long-term knowledge path, these self regulated learners seek challenges and overcome obstacles sometimes with persistence and sometimes with inventive problem-solving (Carneiro, 2011) L3F is a dyadic process creates both vertical and horizontal linkages. In the state of Tamil Nadu, India, COL has been working on L3 for farmers’ project for the last three years. The project is aiming to improve the livelihood security of the illiterate and semiliterate poor women and men farmers through knowledge empowerment. Open and Distance Learning (ODL) method with the support of modern and affordable ICT tool, the mobile phone has been used to support the learning of the farmers.

Stakeholders of the programme: L3F is a collaborative effort of NGOs; Community based organizations, technical institutions, telecom service providers and commercial banks insurance companies and extension departments. Community is not a mere consumer of Information with passive listeners of information disseminated but active partner in Knowledge Management, facilitating self directed learning among the established and culturally rooted institutions like SHGs and farmers groups. COL visualizes its role as a facilitator of a fresh concept for self-sustaining, self-replicating programmes such a perspective necessitates the participation of various stakeholders with a framework of “win-win situation”.

[®] Independent researcher and Consultant to Commonwealth of Learning

[†] Educa on specialist- Agriculture and Livelihoods, Commonwealth of Learning

The project area: L3 project was implemented in the blocks of Uthamapalayam and Chinamanur blocks of Theni district located in the south west of Tamil Nadu state. The district economy is predominantly agriculture based. Among the cultivators 69% of the farmers are small and marginal holders (own less than one ha). Nearly half of the population in the district is agricultural labourers (47.28%). Agriculture is with uncertainties due to variable rainfall, fluctuating market, non availability of timely labour etc. Invariably they believe the income from animal husbandry supports the family and manage the financial condition of the family especially when there is a crisis. Average rainfall of the district is 833.5 mm. Gender wise literary rate shows nearly 30% of the females in the district are illiterates (male: 85.48 female: 69.72). Women play vital role in the house hold economy and carry out activities as per the gendered division of labour in the context of agricultural practices in the field and management of animal husbandry. Women in the district are mobilized and formed as Self Help Groups by several NGOs. Around 11137 SHGs are now operating and linked with banks in the district (Potential Linked Credit Plan, 2011). Membership in SHGs has developed good social network among the rural women in the district. With regard to mobile phone usage, the current average tele-density in rural areas (Feb 2011) of Tamil Nadu state is 47.53%, two years back in the 2009 the rate was 25.62% almost increased to double within the last two years. The district has excellent network coverage of the different telecom service providers, the IKSL - Air Tel, the service provider for the project has nearly 100 percentage coverage in the project area. The NABARD credit linked development plan of 2011 for Theni district has identified lack of facility for need based extension, learning and timely advice are some of the major gap areas for agriculture development.



Credit supported mobile learning for livelihood enhancement: The project is aiming to improve the livelihood security of the illiterate and semiliterate poor women and men farmers through knowledge empowerment. Open and Distance Learning (ODL) method with the support of modern and affordable ICT tool, the mobile phone has been used to support the learning of the farmers. Using ICTs, the project aims at building the capacity among farmers, and landless labourers 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. Gender and Pro poor are the two cross cutting themes adopted from the beginning of the project. Established local platforms such as Self Help Groups, Federations of Self Help Groups, and Farmers associations with enormous capability to generate social capital and promote ICT based developmental efforts. They are action oriented agencies with multiple objectives, operating at local levels, with simple hierarchy, and provide need based multiple services. The members are connected through strong trust based relationship and share equal

opportunity. Collective action based on shared perception on the common good is the basis for its sustainability of the relationship/groups. The trust-based association among the members helps them be more objective and empathetic in their approach and gain respect in the wider societal context. The cognitive form of social capital is more on attitude and perception of the individual: it indicates norms, shared values, reciprocity, solidarity, attitudes, trusts, and beliefs. Social capital as resources embedded in a social structure, which are accessed/mobilized in purposive actions Lin (2001).

Comparing with other ICT tools, mobile phone is the electronic communication technology most widely used in the developing countries. India has 771 million mobile subscribers as of January 2011. Thus, roughly two-thirds of Indian population now owns a mobile phone. India is the world's second-biggest market for mobile services, after China; and with monthly additions averaging 19 million in the past one year, it is the world's fastest growing market. The enabling environment in terms of government policy on telecommunication is contributing the fast growing market and usage of mobile phone in India. Factors like the introduction of prepaid system and the facility of affordable low denomination of air time have resulted in the penetration of mobile in to low income groups. In the fast changing world ICT facilities play a crucial role to enhance local development, to develop skills, promote partnership, integrate in the global markets, improve the delivery services etc. Development discourse still tends to emphasize the economic potential of mobile phones among the farmers and small traders in the context of developing world (Aker and Mbiti 2010). Through ethnographic analysis of the use of mobile technology in rural India Tenhunen (2008) arrives the conclusion that appropriation of phones in the rural areas accentuates kinship ties and village solidarity. And adds that telephony shapes social logistics, increase the efficiency of market, facilitate alternative political pattern and help the women to broaden their culturally constructed spheres.

Vidiyal, a NGO which mobilizes the rural women of resource poor households and form Self Help Groups for the last twenty years is the local partner to COL. Vidiyal works with Vidivelli a SHG federation comprises 239 SHGs with 4000 women as members. The women SHG members are the participants of the L3 project which aims to improve the livelihoods. The women group members' prioritized goat rearing as the most suitable economic activity a set of valid reasons for L3F project after several rounds Vidiyal trained the SHGs to develop the business proposals and the proposals were submitted to the Indian Overseas bank. The bank accepted the proposals and supported the women farmers for buying goats. As a package each woman got ten female and one male goat and one mobile phone.

The women who take the goats for open grazing carries the mobile, they go up to five kms away from the village, receives the voice mails while grazing the goats away in the forests or the open grazing ground. In some cases together both husband and wife take the goats for grazing in such cases both listen the voice messages get the benefit. They appreciate the technology which facilitates the learning with suitable contents in the real life situations. Discussion on the voice mails received is one of the regular agenda in the SHG meetings. The mobile owners share the information received with the non mobile owners. The leaders of the SHGs discuss about the voice mails in the SHG cluster meetings; it acts as a platform for discussions and discourse among the mobile users. These meetings provide the women an opportunity to discuss the messages received, clarify their doubts, fix the information in the existing knowledge system etc. Sometimes women learners are unable to comprehend the message heard, the facilitation of horizontal learning in the SHG meetings, cluster and federation meetings help to clarify their doubts and get clarity and understanding. The discussions are not only taking place in the SHG and cluster meetings, but in the work places, this provides an opportunity the other non mobile owners also hear the voice and know the contents and participate in the discussion. Apart from the SHG and cluster meetings women mobile owners interact with the other women to confirm, cross check, and

also clarify certain things this makes the women to engage with the fellow learners and discuss. In the domestic context the entire family supports the learning objective of the woman, it is like a norm that if other family members hear the voice mail such as the son, husband etc, they immediately share the information with the woman and help to learn the content. Repetition improves the learning, helps the learners to gain more clarity and confidence to use the information in the real situation. Mobile technology helps to practice this in a cost effective way, some of the really relevant and important information are repeated for several times. Access to mobile, a source of learning and communication owned by the women has subtly enhanced the power to negotiate with the men folk. Access to technology has helped women to encroach the space of marketing and efficient handling of information is visible while individual women market their goats in the market.

The banking sector in the developing world is looking for strengthening the rural credit. It is generally believed that the performance of rural credit is being hampered by high transaction costs and large non-performing assets (NPA). In recent times, in countries like India, Bangladesh and Sri Lanka, the Self-Help Groups (SHGs) and microfinance have attained importance in the banking sector and the experiences show that SHGs not only offer advantages of scale in terms of transaction costs but also have shown lowering NPA rates. Banks provided the financial capital to start an enterprise, learning for the better management of the enterprises was supported through mobile phones on daily basis. Through such learning process the community members were able to raise the goats in a scientific manner with better productivity and profitability. The project started with goat rearing activity and now expanded to dairy management and backyard poultry. Periodical assessment and monitoring of the results is important to know the results and level and process of learning and also improving the knowledge.

In terms of cost the mobile phones are relatively cheap compared with other ICT based devices used for open and distance learning, the low cost involved in the method provided more scope for sustainability and scalability. In terms of handing and message reception the semi literate and literate farmers in rural areas find mobile phones more convenient to engage in the learning process, hence mobile technology is socially acceptable, economically feasible and financially viable. Illiteracy is not an issue for mobile learning, the style and language used in the voice mails make the women to feel extremely comfortable and motivated to participate in the learning. Flexibility in the timing to receive the voice mails is the other major advantage. The easy portability is considered as the biggest advantage to carry where ever they go, easy to carry. In SHG meetings, they were trained to make calls in the mobile phones. Majority of the mobile owners are illiterates with a tight daily routine with multiple tasks with mobility in their day to day life. Considering these factors the women feel mobile phone based learning is the most appropriate option.

A study on outcomes and impact of L3 project was conducted by an external expert with L3 learners and non learners the result clearly reflected benefits of the learners due to their participation in the learning programme. The results revealed considerable difference between the L3 farmers and non L3 farmers in the size and weight of the goats, the number of kids born and mortality and the total income generated, L3 farmers Rs.44,407 and non L3 farmers Rs.24,133. Created a major change is the food habits in the households of the L3 farmers. The income they make helped to enhance the food and nutritional security. According to the women learners, in the past they had non vegetarian food only a few occasions in a year, during the festival and other special occasions, now they consume meat weekly once. Consumptions of vegetables in their daily food also increased, buy the vegetables from the markets.

Project results: Mobile phones opened up a new channel of communication; otherwise before the introduction of mobiles the women were with restricted or limited access to information and communication technologies. The opportunity to listen voice mails helps them to learn new things and expand their knowledge on goat rearing. Mobile based learning has resulted in the better goatry management, improvement in their annual income and resources available to meet the cash requirements during the crucial periods of a year. It is right to propose that promotion of mobile phones in the rural areas as an effective tool for information access and learning and achieve information empowerment; this would be a sensible effort to overcome the digital divide. The women owners feel proud of mobile ownership; it has brought a new social status to them and perceive that the new technology is helping to overcome the social barriers to have access to information and learning, otherwise they have been denied of it due to their restricted mobility and lack of space for participation in the forums and institutions.

L3 project is creating new learning environment to women goat rearers in the community. Continuous learning through mobile phones has helped the women for better management of goats and to market. Loan repayment and asset creation are two major aspects which could reflect the improvement in the livelihoods of the farmers participated in the L3 project. The bank has certified that the repayment rate is 100% and more than 50% of the farmers repaid the entire loan in advance, this helps the farmers to apply for the second loan and got sanctioned. After the repayment the average value of the goats owned by the household is Rs.1, 20,000.

The project result shows that credit-specific learning process using ICT based Open and Distance Learning (ODL) helps to strengthen the performance of the credit and reduce the Non-performing asset (NPA) rate in the banking sector. The initiatives helped the community, banking and the telecom sectors in terms of business and returns. In addition such a mode of learning does not involve drudgery and opportunity costs for the farming community.

The effort made for the horizontal learning makes an even distribution of information and knowledge in the prevailing system of the uneven distribution of information and the knowledge management. Use of mobile phones by the women enhances Self confidence, promotes social interaction. Costs, reliability, flexibility, suitability, positive gains made are the major factors the community and the NGO perceive would ensure to achieve sustainability and scalability of the project results.

Majority of women goat rearers who got the loan three years back now own a herd of minimum 30 to 50 goats worth of Rs.1,00,000 to Rs.1,20,000, apart from what they sold in the market in between (each women farmer received Rs.43,000 to buy ten female goats and one male goat and a mobile phone). From second year onwards every year each farmer sells 12 to 15 small goats for Rs. 30,000. Apart from selling goats a farmer with a herd of 40 goats get around Rs.1,000/ per month through selling dung.

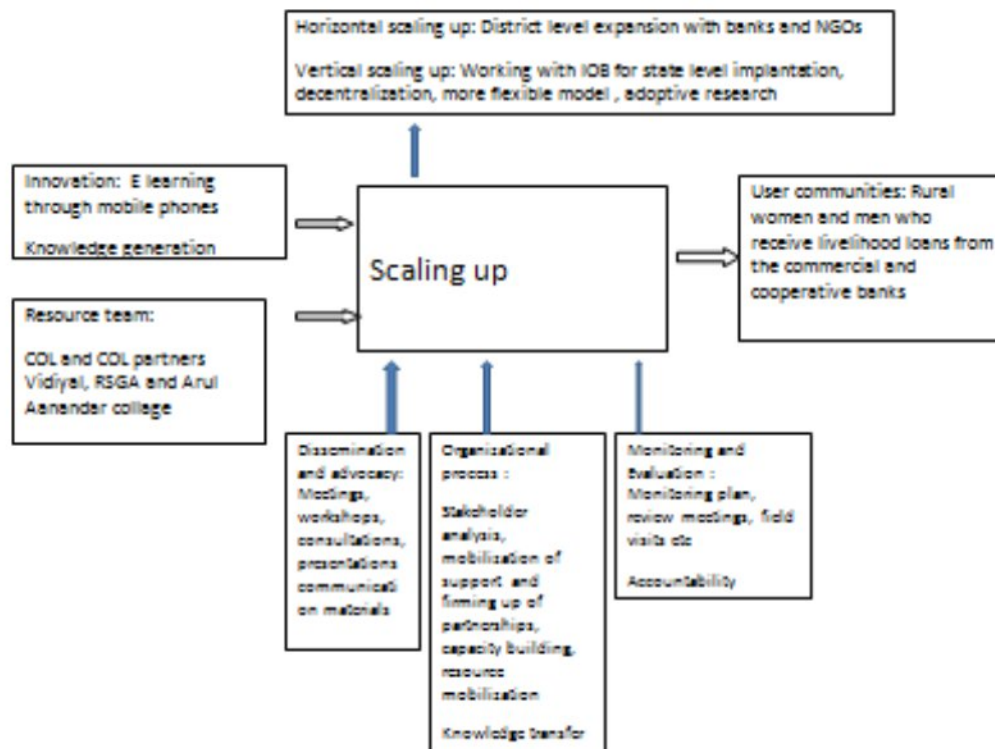
According to the results of L3F the domestication of technology, with elements of appropriation, objectification, incorporation, and conversion, has taken place in the context of cognitive social capital and social learning capital. The appropriation of the mobile phone in the context of bank credit and lifelong learning has helped to create an identity for the phone as a learning and business tool. This study demonstrates that the transition from silence to voice, from powerlessness to empowerment is possible in non-formal learning contexts, just as it is in formal contexts, and that technology offers a means to accelerate this process if the use of technology is placed in an appropriate social context. (Balasubramanian, K et al 2010)

Up scaling the programme: Developments should strive to be future-friendly, replicate the successes/results. Scaling up is expanding the results/impact of a successful community empowerment effort beyond a single or limited number of communities to the regional, national or even multinational level (Howard-Grabman and Snetro, 2003). The term scaling up is used here to describe the expansion/spreading out of an existing program in additional geographical sites or the application of a successful model in a new context or area of the same region or the other regions.

The results achieved and impact created in the L3F project led to discussion about scaling up of the intervention at meso and macro levels. Scaling up horizontally through expanding the number of users in a district (meso level) is planned with the active support of National Bank for Agricultural and Rural Development (NABARD) and other commercial banks in the district. NGOs identified by the banks as their partners' in the credit programmers are expecting to play important role. The horizontal scaling up at the district will helped to redefine the tools, concepts and logistics, to identify if there are issues and problems when the intervention is expanded to the new sites, it will also help to arrive the realistic cost of the scaling up logistics. According to Uvin (...) Quantitative scaling up occurs when a program spreads to new target audiences, new geographic areas, or when a program approach is adopted by new organizations, political scaling up occurs when an approach used at the community level broadens its reach through policy and other changes at the macro level and/or governmental institutions resulting in expansion to district, regional, or national levels. Based on the consultation held with NGOs and other stakeholders COL decided to continue the support for the scaling up of L3F in two districts Theni and Dindigul in the state of Tamil Nadu. NABARD and the major commercial banks agreed to actively participate in the facilitation process with COL.

NABARD and the leading commercial banks found the ICT based learning methods adopted and outputs and outcomes achieved are significant and willing to join the scaling up efforts. L3 project is considered as an opportunity to enlarge the market for bank credit and among small and marginal farmers and particularly women and reduced the rate of NPA, the major concern bankers have been trying to address. A strong resource team was formed at the district level to facilitate the process of the horizontal scaling up. The following flow chart describes the design adopted and the cyclical process of the scaling up and steps to carry forward to reach the end users.

Mobile learning for L3 farmers: The scaling up process



Separate workshops were held with the bankers and NGOs in the two districts helped to identify a list of credible NGOs who could replicate L3F with the active participation of SHG members and members of farmers clubs. Vidiyal in Theni and Reddiarchatram Seed Growers Association (RSGA) in Dindigul were identified as nodal NGOs to facilitate the process.

In Theni district Vidiyal is working with seven NGOs and in Dindigul district RSGA has been partnering with nine NGOs to expand the mobile learning. Action plans have been jointly prepared by the facilitating agencies Vidiyal and RSGA and the respective partner NGOs for every six months. The activities are being carried out based on the action plans. The NGOs identified to replicate L3F underwent an orientation programme on L3F and mobile learning programme. Goat rearing and management of milch animals were the two activities identified. The NGOs with the support of the facilitating NGOs approached the banks and got credit support. The members who got the credit support joined in the mobile learning network. Orientation programmes were conducted to the staff of the NGOs and SHG federation leaders L3F and mobile learning. The NGO staff were provided training on development of business plan, information need assessment etc were conducted to second. A focal person was identified from each NGO to work closely with Vidiyal and RSGA and carry out L3F activities.

Project monitoring committees are formed to closely monitor the implementation of the activities and achieve the expected outputs. L3F is getting the support of banks at different levels, the local branches to deliver credits for the SHGs and farmer club members, district level with Lead bank manager and Manager, NABARD to mediate with the different banks operating in the district, and the regions level to

get clearance if the sanctioned credit amount is beyond the limit the branches can sanction. IKSL- Air Tel is extending all possible support for expanding the network coverage and also adds new learners in the Goat rearers network. Arul Aanandar Collage the third major partner in L3F is responsible for the delivery of contents; NGOs help to prepare the contents list (need based) and the contents prepared is shared with the NOGs in CD forms.

Banks reviewed L3F activities at the field level the bank managers are invited the monthly/bimonthly meeting organized by the L3 F partners NGOs to discuss about L3F, during the occasion the bank managers are expected to discuss the issues and also give suggestions to clear if there are hurdles to provide credit support. The other forum is block level bankers meeting conducted by the lead bank manager during the first week of every month in all blocks, NGOs operating in the particular block are invited and given opportunities to discuss and find solutions if there are problems. The next is at district level, when COL, Vidiyal and RSGA conduct the review meetings once in three months the lead bank manager, District Deputy manager, NABARD and other senior managers are invited to participate and review the progress made by different NGOs and help them to find out solutions to the problems. These meetings help to sort out issues if any and convince the bank managers to extend credit support to L3 farmers and NGOs and banks to work together to recover default loan amounts from the members. Bankers agreed to speed up the process of clearing the loans. Banks appreciated NGOs bi monthly review meetings of L3F conducted to discuss about credits with the managers. Apart from voice mails, AAC, Vidiyal and RSGA prepare learning materials in multimedia CD form to share with the SHG members. Using Macromedia Flash animation software and Sound Forge voice recording software, the content was modified into CD form. CDs of farmer friendly contents on goat rearing and milch animals, and local fortnightly with contents on these two enterprises are being distributed to the members who joined in the L3F programme.

Although banks are willing to provide credit support and promote L3F, and make good business, many times the bank managers are slow in decision making to release the loans. Some of the villages Air Tel – IKSL service coverage is still an issue, since there is no coverage the members in these villages are unable to join in the mobile learning programme. The existing NGO – Bank partnership for easy facilitation credit flow, availability of platforms at different levels, regular bankers meeting at block and district levels to interact and sort out issues if any. Mutual learning takes place among the NGOs replicating L3F through periodic meetings organized by Vidiyal and RSGA. One of the main points constantly insisted in the scaling up process is how the NGOs can help to preserve the values (SHG members with trust based relationship, credible partnership with banks, learning for better management etc) prevailed in the original pilot project to replicate the success of L3F.

Eighteen NGOs are now actively participating in L3F programme both in Theni and Dindigul districts. In the last four years since the beginning of the project around 5571 members have received loan and joined in the L3F project, the total loan amount received is Rs.2470.63 lakhs. Recently National Institute of Bank Management (NIBM) has conducted to analyze the cost, private return and social return for the farmers and agricultural borrowers vis - a - vis L3F and to identify policy advocacy strategies to strengthen the capacity building of agricultural borrowers. The results show that L3 farmers have shown prompt and timely repayment of loans to the banks, the asset size of the farmers have increased over the years, 'substantial improvement' in their dairy and goat rearing business in areas such as in the quality and quantity. The asset creation has helped the family members to diversify the income of the households.

Conclusions: In L3F learning/extension takes place in the context of already established social capital such as Self-help Groups, SHG clusters, SHG federations, farmers clubs, farmers associations etc. Mobile phone has created a break through access to women to information sources, through this technology women are able to establish independent link with the external sources. The mobile phone is a strategic resource owned by the women SHG members. It also supports to address the other strategic areas such as ownership, access to information, independent communication link, direct marketing, horizontal mobilization of women etc. The women helped the men in their families to realize the importance of learning and the mobile is a tool to facilitate the learning.

Most of the women farmers now have separate savings account in the bank. Many of them use this account to deposit the money they get from selling goats and take independent decisions to spend the money. Here it is apt to quote Kabeer (1999) that 'Empowerment refers to the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them'. The virtual space created through mobile use, has enhanced the women farmers' decision making ability for livelihood asset management and marketing.

The need based continues learning helped the women and men farmers for better management of goat rearing and milch animals and promptly repaid the loans to the bank. The project results show zero NPA and asset building by the L3 farming families. In many families the income earned was used to diversify the economic activities and reduce the risk of depending on a single source of income.

Wide spread adoption of evidence based best practices often take long time, this can be achieved through multiple efforts such as creating networks, organize meetings, conferences, advocating for policy formulation/changes etc. Credible business partnership between the NGOs/CBOs and the banks operating in the region is the premise for the replication of L3F. The process facilitation and continuous capacity building help the NGOs to internalize the principles of L3F and gradually increase the number of learners in the programme. The horizontal scaling up at the district helped to redefine the tools, concepts and logistics; it will also help to arrive the realistic cost of the scaling up logistics.

The results of the ongoing quantitative scaling up should take the project next level in the scaling up process – Political scaling up, to broaden the community level results through policy and other related changes at meso and macro levels/bank and government institutions resulting at state and national level expansion. A strategy has been worked out for state and national level political scaling up. NIBM is the major collaborator in the effort, a study has been already conducted by NIBM and it is planned to organize an advocacy meeting with the national leaders of all leading banks to present the results and convince the bank to take up Life long learning as bank's policy to support their agricultural borrowers.

References

Aker, J and Bbiti Issac M.2010 Mobile phones and economic development in Africa. Working paper 211 Washington: Centre for Global Development.

Balasubramanian, K 2010 Using mobile phones to promote lifelong learning among rural women in Southern India in Distance Education Vol 31, No.2 pp 193 – 209

Bidokht, M. H and A.Assareh 2010 Life Long Learning through problem based and self directed learning’ *Procedia Computer Science* 3 (2011) pp 144-1453

Carneiro, R 2011 ‘Discovering the treasure of learning’ in Conceptual evolution and policy developments in lifelong learning Ed. Jin Yang and Raúl Valdés-Cotera, UNESCO Institute for Lifelong Learning, Hamburg

Howard-Grabman, L. and Snetro, G. (2003). How to mobilize communities for health and social change: A health communication partnership field guide. Baltimore, MD: The Health Communication Partnership based at Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs.

Kabeer, N 1999 ‘Resources, Agency, Achievements: Reflections on the Measurement of Women’s Empowerment in ‘Development and Change Vol 30, pp 436 - 464

Lin N., 2001, *Social capital: A theory of social structure and action*, Cambridge, Cambridge University Press

Potential Linked Credit Plan 2011-2012, Theni District, National Bank for Agriculture and Rural Development, Tamil Nadu Regional Office

Tenhunen, S 2008 ‘Mobile technology in the village: ICTs, culture, and social logistics in India in the *Journal of the Royal Anthropological Institute* No 14, pp 515 – 534

Uvin, Peter. (n.d.). *Scaling up the grassroots: An annotated bibliography*. Retrieved on March 13, 2007, from the Global Development Research Center Web site: <http://www.gdrc.org/icm/biblio-scaling-up.html>.