# LARGE SCALE MICROINSURANCE LITERACY AND SERVICE DELIVERY THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

- *P. Premanand, Team Leader, DHAN Foundation, Madurai, INDIA*

*This paper is written based on the field experiences of DHAN Foundation, a leading Non-Governmental Organisation (NGO) in India working at the grassroots to enable the poor communities for their development.*

## 1. Introduction

Low-income persons live in risky environments, vulnerable to numerous perils, including illness, accidental death and disability, loss of property due to theft or fire, agricultural losses, and disasters of both the natural and manmade varieties. The poor are more vulnerable to many of these risks than the rest of the population and they are unable to cope when a crisis occurs. Poverty and vulnerability reinforce each other in an escalating downward spiral. Exposure to such risks result in substantial financial losses and the vulnerability is higher.

### 1.1 Microinsurance

Microinsurance is the protection of low-income and poor people against specific perils in exchange for regular premium payment proportionate to the likelihood and cost of the risks involved and the premium are lower and sometimes subsidized, operates by risk pooling and resource allocation, tailored for the poor and mostly ignored by mainstream commercial and social insurance schemes. The micro refers to low premium and low coverage and the risk, delivery channels and risk carrier need not be small. Microinsurance links multiple small units into larger structures, creating networks that enhance both insurance functions through broader risk pools and support structures for improved governance like training, databanks, research, reinsurance, etc. Microinsurance is recognized as a useful tool in economic development. As many low-income people do not have access to adequate risk-management tools, they are vulnerable to fall back into poverty in times of hardship and force families to take loans at high interest rates.

Community based microinsurance schemes have evolved in the context of severe economic constraints, political instability and lack of good governance. More important for the microinsurance is that is driven by the community where it is by the community, of the community and for the community with low premium, lesser transaction cost and the clients are from the poor. It is important that we be thorough and careful when making policies, otherwise microinsurance could do more harm than good. One of the greatest challenges for microinsurance is the actual delivery to the clients and hence the methods and models vary depending on the organization, institution, and provider involved. In India the Microinsurance Regulations was issued in 2005 by the Indian Insurance Regulatory and Development Authority (IRDA). Information and Communication Technology (ICT) plays a major role in microinsurance sector similar to any other sector like education, health, microfinance, agriculture, etc. The ICT can also be harnessed for providing result oriented e-literacy.

### 1.2 Charactersistics of Microinsurance

- ❖ *As inclusive as possible*
- ❖ *Affordable premiums*
- ❖ *Grouping for efficiencies*
- ❖ *Easily accessible claims documentation requirements*

*1.3 Microinsurance Products*

The Microinsurance risks include both health risks (illness, injury, or death) and property risks (damage or loss). A wide variety of microinsurance products exist to address these risks, including Life, Health, Disability, Property, Micropension and Insurance for theft / fire / natural disasters.

*1.4 Microinsurance Models*

- ❖ *Partnership model*
- ❖ *Agency model*
- ❖ *Micro Agent model*
- ❖ *Community-based mutual model*

*1.5 Microinsurance in India*

India is the 7th largest country in the world and is 2nd in terms of population which is around 1230 million. With its diversity there are many religions, languages, castes, culture, socio-economic conditions, geography and digital divide. In terms of number of insurance policies it is approximately one-fourth the population leaving another 75% of population not covered under insurance. Liberalization of the economy and the insurance sector has created new opportunities for insurance to reach the vast majority of the poor, including those working in the informal sector. India has the most dynamic microinsurance sector in the world. The market penetration is largely supply driven and not demand driven. Microinsurance in India has valuable lessons for rest of the world, particularly in the regulation of the industry. In 1999, the Insurance Regulatory and Development Authority popularly known as IRDA was created by an act of the Parliament to regulate all insurance companies and businesses in India. IRDA has evolved into an effective regulator and it has facilitated the entry and growth of private players in the insurance sector. Although microinsurance has a great deal of potential for meeting some of the risk management there are limitations such as lesser coverage due to risk pooling among the poor and in small numbers, lesser benefits and services due to low premium and less numbers and mostly operated by NGOs having limited reach to their targetted groups.

*1.6 Microfinance and Microinsurance*

Microfinance has improved access to savings and credit for the poor. However, savings and credit alone are not sufficient to address all the risks the poor face. Indigenous coping mechanisms address some risks but formal insurance services are required for complete protection. Unfortunately, many of the poor are excluded from access to insurance due to lack of appropriate insurance products. Combining microinsurance services with savings and credit will help achieve poverty reduction. While a number of programmes have taken initiatives to integrate microinsurance as a mechanism for risk reduction, large scale practice on microinsurance has been experienced only by a few. Thus the integrated approach of microfinance, microinsurance, micro enterprises, micro-pension and ICT as cross cutting tool can help in poverty reduction and this is not just income generation but protecting the incomes through effective risk management solutions. Microfinance has become an important instrument for addressing poverty, but occurrence of unexpected losses due to exposure to various risk factors could affect the poor households that results in falling deep into the poverty situation.

## 2. About DHAN Foundation

Development of Humane Action (DHAN) Foundation, a professional development organisation, was initiated on October 2, 1997. It brings highly motivated, educated young women and men to the development sector. They would make new innovations in development to root out poverty from the country, thus achieving the Mission of the organisation.

### 2.1 DHAN's Mission

*"Building people and institutions for development innovations and scaling up to enable the poor communities for poverty reduction and self-reliance".*
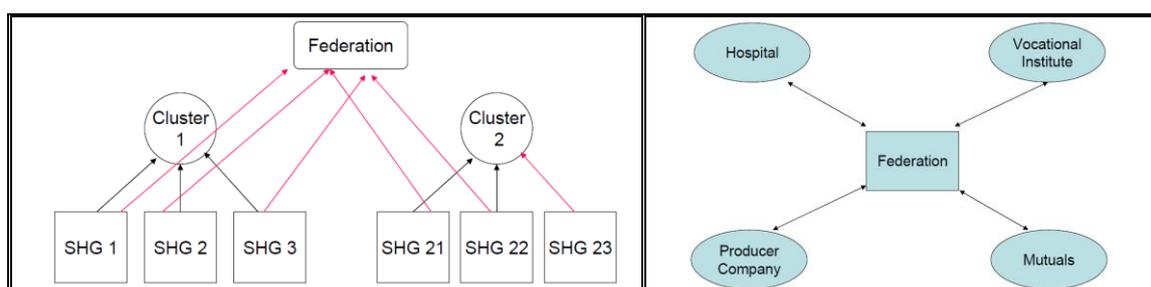
### 2.2 DHAN's Purposes

❖ **Mothering of Development Innovations:** The institution intends to promote and nurture new ideas on development themes such as microfinance, small scale irrigation, dry land agriculture, and working with Panchayats which can impact on poverty in a significant manner.

❖ **Promoting Institutions to reach scale:** Exclusive thematic organisations will be promoted to take up development work with a sub-sectoral focus. The primary role will be to promote and ensure that quality benefits reach a large number of poor.

❖ **Human Resource Development:** The institution would bring young professionals into the development sector and give them an opportunity to practice and develop relevant knowledge, attitudes and skills needed for long term work.
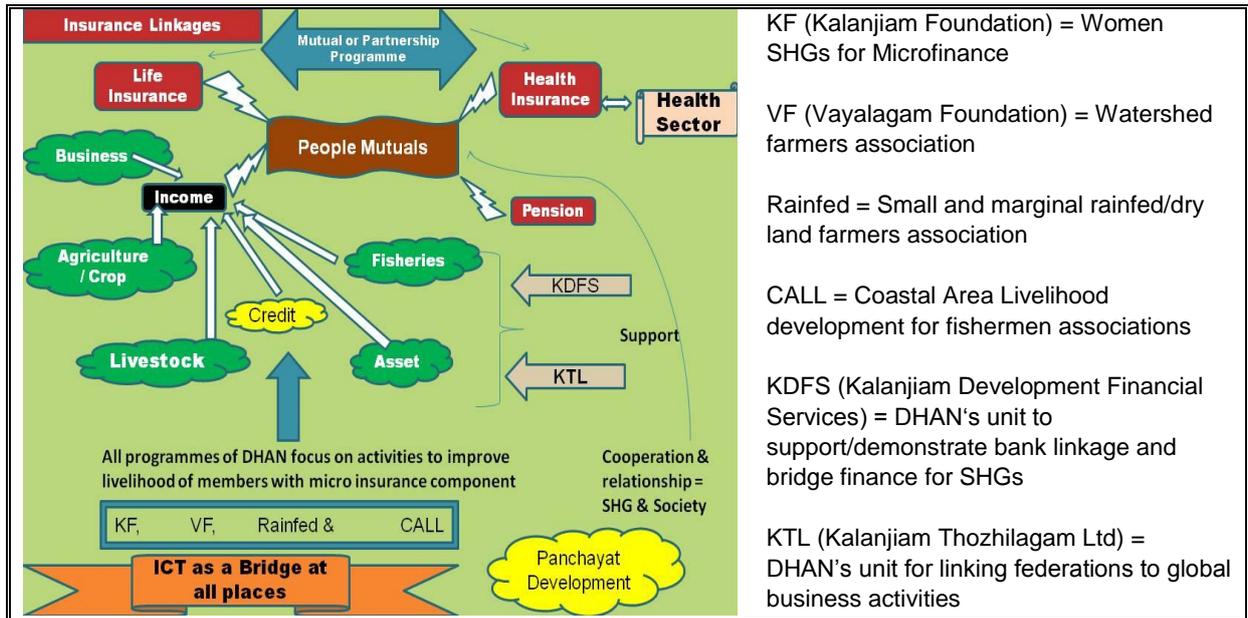
### 2.3 DHAN's Approach



### 2.4 People Institution Structure

In order to address poverty reduction and development a platform or foundation is required for designing and implementing programmes which in a longer run is self supported, sustainable, result oriented, creates an impact and is achieving the objectives. DHAN strongly believes that the Social Capital by way of organizing the low income poor is the platform for all DHAN's programmes such as microfinance, microinsurance, health, vocational education, drinking water, agriculture, dairy, production and marketing. The Self Help Groups (SHG) are the primary groups consisting of 15-20 poor people as members and on an average 200-250 groups together form the Federation thus having an average membership of 4,000 people. Most of the federations have different products like Hospital for addressing health issues, Vocational Institute, Producer Company and Microinsurance as shown below.

## 2.5 DHAN's Reach



## 2.6 People Mutuals: The Microinsurance Arm of DHAN



People Mutuals was established as a separate entity on second day of October 2003 and registered as a trust under Indian Trusts Act on December 11, 2003. People Mutuals is similar to the Confederation which is like a Federation of Federations. This is a mutual microinsurance initiative promoted by people federations and facilitated by DHAN Foundation.



It is supported by Oxfam Novib, Rabobank Foundation, Achmea (formerly Eureko) and Micro Insurance Association of Netherlands (MIAN), The Netherlands.

### 2.6.1 Mission

The Mission Statement of People Mutuals is *"Safeguarding poor from risks and vulnerabilities through mutual solutions and collaboration with insurance providers to reduce poverty"*

### 2.6.2 Principles followed

- ❖ Mutual and Collaboration
- ❖ Microinsurance of the poor, by the poor and for the poor
- ❖ Relevant to the risks of poor with affordable premium and relevant benefit
- ❖ Simple rules, procedures and systems evolved by the poor community and managed professionally
- ❖ Continuous education for enrollment & renewal continuity

### 2.6.3 Programme Components of People Mutuals

- ❖ Product promotion and development
- ❖ Mainstream collaboration to ensure risk cover to all people
- ❖ Institution building
- ❖ Capacity building/education on mutuality and social security
- ❖ Policy advocacy
- ❖ Research, studies and documentation

### 2.6.4 DHAN's Social mobilization and Microinsurance Framework



KF (Kalanjiam Foundation) = Women SHGs for Microfinance

VF (Vayalagam Foundation) = Watershed farmers association

Rainfed = Small and marginal rainfed/dry land farmers association

CALL = Coastal Area Livelihood development for fishermen associations

KDFS (Kalanjiam Development Financial Services) = DHAN's unit to support/demonstrate bank linkage and bridge finance for SHGs

KTL (Kalanjiam Thozhilagam Ltd) = DHAN's unit for linking federations to global business activities

### 2.6.5 Member Benefits

| As a Client of People Mutuals | As a Owner of People Mutuals |
|---|---|
| ❖ Able to get financial solutions for risks and Vulnerabilities related issues <br> ❖ Able to understand the differences between savings and insurance <br> ❖ Enable to initiate the insurance at the early stage of SHG <br> ❖ Able to understand the concept of group insurance & Mutual Insurance solutions <br> ❖ Able to get easy claim procedure | ❖ Opportunities to select suitable products <br> ❖ Able to understand and follow claim procedure <br> ❖ Orientation on financial management of mutual programme <br> ❖ Able to realize the need for reinsurance / Back up insurance |

### 2.6.6 Microinsurance Models and Products

The two models of Microinsurance services are offered.

    a.  Mutual Help Programme and Reinsurance and Solvency Building
    b.  Collaboration with Insurance Companies
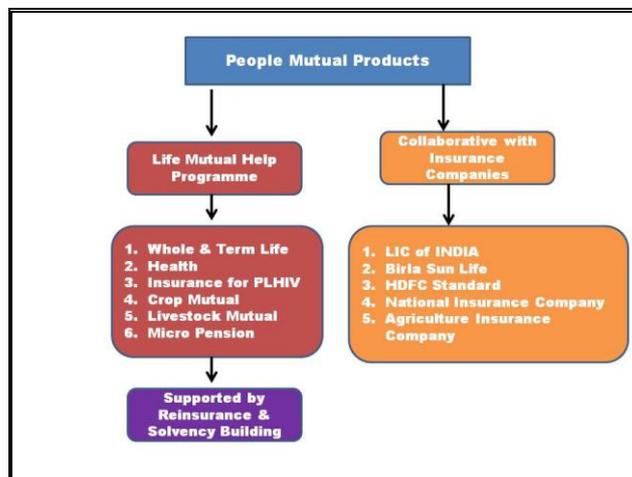
### 2.6.7 Microinsurance Reach

The microinsurance coverage ensures multiple accesses of different products to people. The reach is given below.

| Sl. No. | Risk | Female | Male | Total |
|---|---|---|---|---|
| 1. | Life only | 172613 | 57225 | 229838 |
| 2. | Life & disability due to accident | 262422 | 128454 | 390876 |
| 3. | Life, disability and pension | 4769 | 0 | 4769 |
| 4. | Health | 27067 | 29421 | 56488 |
| 5. | Livestock | 5047 | 3500 | 8547 |
| 6. | Crop | 0 | 8376 | 8376 |
| | **Total** | **471918** | **226976** | **698894** |

The microinsurance coverage under products of Insurance companies through the approach of collaboration is detailed below.

| Sl. No. | Insurance provider | No. of policies | Percentage |
|---|---|---|---|
| 1. | Life Insurance Corporation of India | 594240 | 65 |
| 2. | Birla Sun Life | 131464 | 14 |
| 3. | HDFC Standard Life Insurance | 80331 | 9 |
| 4. | National Insurance Company | 79725 | 9 |
| 5. | Oriental Insurance Company | 1969 | 1 |
| 6. | Agriculture Insurance Company | 15762 | 2 |
| | **Total** | **903491** | **100** |

## 3. Information & Communication Technology (ICT) in DHAN

The world is heading towards a concept of global village connecting every organization and individual through the Internet. ICT as a tool has broken many barriers in availing and using information across the world and increased the efficiency of organizations and individuals. Technological up-gradation is continuously leading to change in the instruments used, making them cheaper and reaching the households in a faster pace. However, there exists a great divide in the usage between urban and rural, rich and poor, for profits and charities. DHAN Foundation, conscious of the technological change and poor being left out in the whole process has initiated the theme ICT for Development broadly to address the use of ICT tools at the grassroots particularly the poor people and to harvest the benefits of automation for various development programmes.

### 3.1 ICT for Development

The Village Information Centers (VICs) initiated during 2000-01 are the grassroots level ICT enabled centre at Panchayat/village level and each of them reach out to about 5-6 villages/hamlets. These centers are managed by trained women from the local community. The villagers contribute by way of a rent free building which is accessible to all people irrespective of caste, sex, religion, etc and particularly women. The VICs are equipped with two computers, internet connection, printer, UPS, public address system, mini-library, interactive multimedia content in DVDs, web/digital camera, etc. The Federation runs the VICs to benefit the set of SHGs (clusters) and general public through e-services catering to the needs of school going children, youth, women and farmers. These centres offer the services as paid like education, job work, etc and free services like video conference, agriculture content viewing, etc. At the federation there is a Community Radio station working in the Frequency Modulation (FM) band. The community radio station coverage area is 15 km radius thus covering about 50 nearby villages and reaching to both members and non-members of the coverage area. Today the Community Radio and Village Information Centre/Kiosk are seen as the best system to reach out the masses in the villages.

*Services offered at the Village Information Centers & Community Radio*
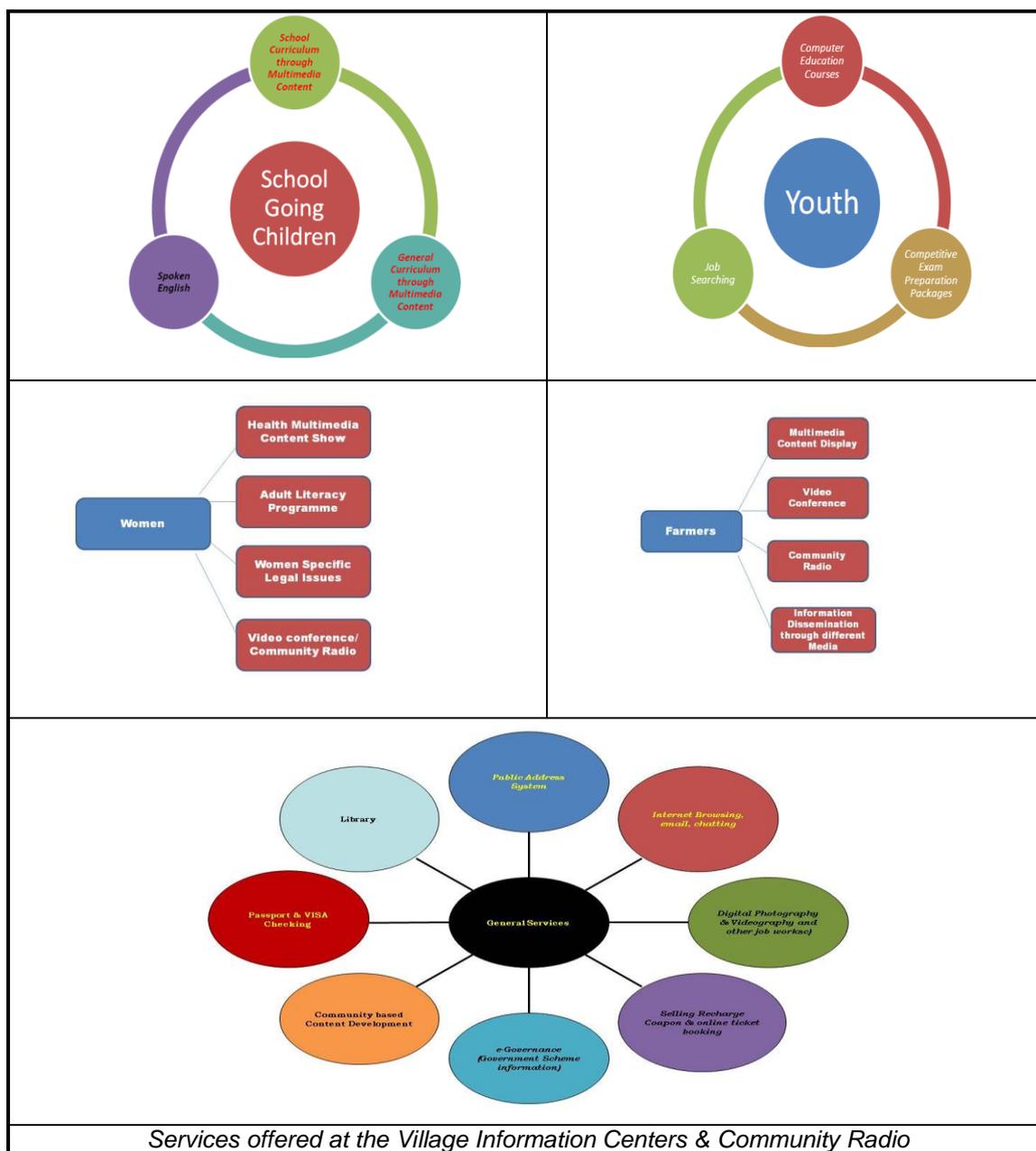
### 3.2 ICT for DHAN's Programme Management

DHAN's growth in terms of increased reach and projects started during the year 2000. One of the thrust areas was on automation and creation of computerized member database. The microfinance software available in the market was explored and assessed. Most of the software was proprietary and there was only little scope for upgradation but many are not interoperable and were also high priced. DHAN decided to set up an in-house ICT team to take care of the software so that it can be a significant contribution to the sector.

The software for microfinance is called **DHANAM** and is developed using open source tools (JSP and MYSQL) to work on both Windows and Linux platforms and in online and offline mode. The software has also module for microinsurance mostly for the life which was much focused during those years. When microinsurance through partnership and mutual models started in a big way, there was a felt need to develop separate software for microinsurance. Similarly software was developed for the programmes of DHAN like Tankfed Agriculture Development and most of the DHAN's programme has the major component of Microfinance. During 2009 Kalanjiam Financial Development Services

(KDFS) of DHAN was appointed as the national Business Correspondent for State Bank of India (SBI) under the Financial Inclusion initiative. Both the **Internet/Kiosk Banking** and **SMART CARD** banking was piloted. As a special project SBI provided SMART card for the SHG as a joint account operated by the SHG leaders in addition to the SMART card for individual SHG members.

### 3.3 ICT for Microinsurance Services
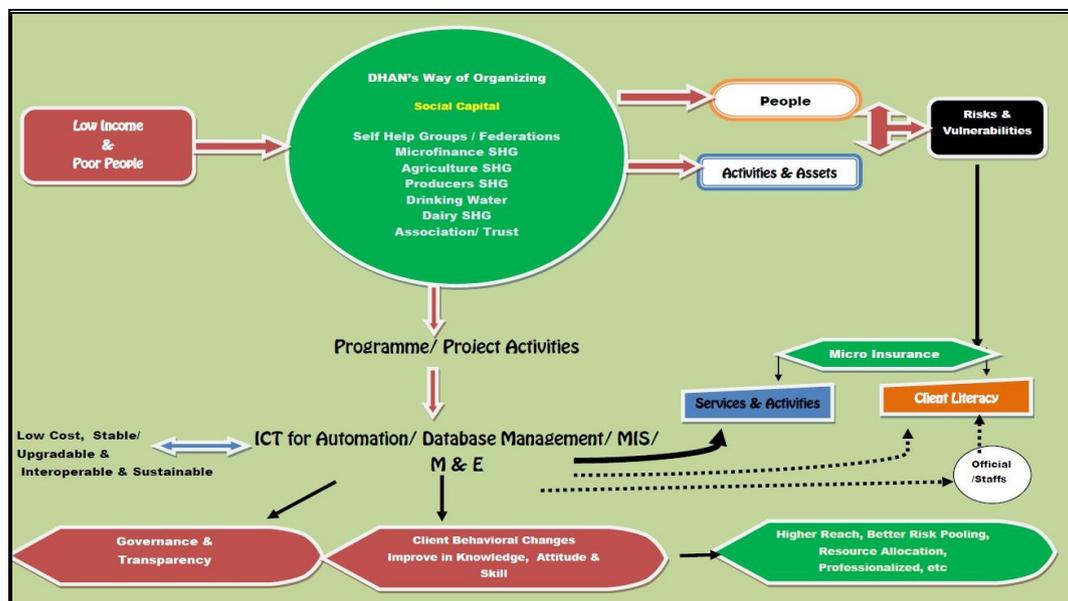


The **Social Security Software (SSS)** was thus developed on similar lines and DHANAM served as the parent for the member database. The software provides the list of eligible members for enrollment, enrolled and not enrolled in the insurance programmes and helps track the member administration aspects of premium collection, member details and policy issuance particulars. It administers the claim process and payments under different risk programmes. Complete administration is computerized through this software which would generate the financial statements at any point in time. The insurance software has five modules namely master module, microinsurance module (including smaller modules such as portfolio, products, premium, benefits & policies), claim module, finance module and reporting module. The life and health mutual insurance federations are using the software for their administration and operationalization. The software can be used both as offline and online and works both in Windows and Linux platforms and is built using open source tools like DHANAM.

After the year 2005, the health insurance, crop and livestock microinsurance started in a big way and the SSS was further improved to contain these modules. At the time of working on the mutual insurance products & services a separate Mortality Analysis Tool was designed and developed for data analysis to work out the mutual insurance products. During 2011 the micropension pilot project is initiated and relevant modules are being built in the SSS.

For the rainfall based crop insurance there was need to set up rain gauges. With the support from International Labour Organisation and Achmea, The Netherlands 159 **Automatic Rain Gauges** were set up in the villages. The rainfall is recorded and data for every 15 minutes is captured, stored in data logger and transmitted to central portal using GPRS & SMS. The objective of capturing rainfall every 15 minutes is to monitor the working of the rain gauge and at the same time generate hourly rainfall data for further analysis. The daily rainfall data is used for the crop insurance activity. The rainfall data is daily sent to the Federation Coordinators as **SMS** and the Village Information Centre displays the data in notice boards as well as announces through Public Addressing System. Moreover, such information is also disseminated through the Community Radio during the local weather report announcement.
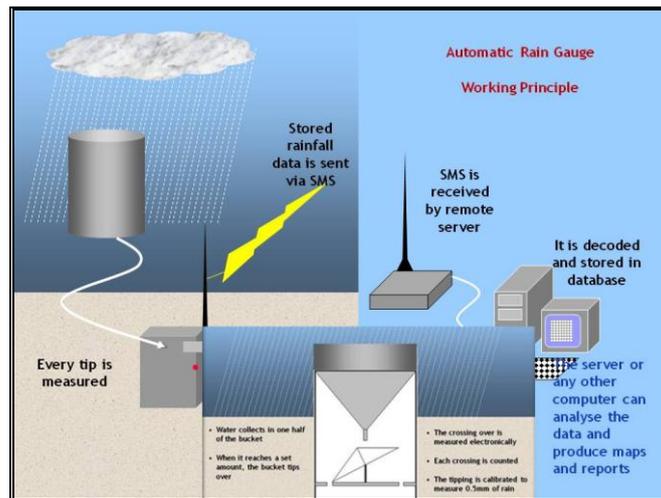
During 2009 the Virtual Education on Microinsurance (VEMI) was offered by the Advanced centre for Skill and Knowledge on Mutual Insurance (ASKMI) of Tata-Dhan Academy of DHAN. Moodle was the open source tool used for the Online VEMI course and two batches of DHAN staff have successfully completed the course. Identification card with photograph, hologram and barcode is replacing the existing member card with name and photo under the health insurance programme and mobile alerts through short message services (SMS) is are being tried out recently.

### 3.4 ICT for Micro Insurance Literacy
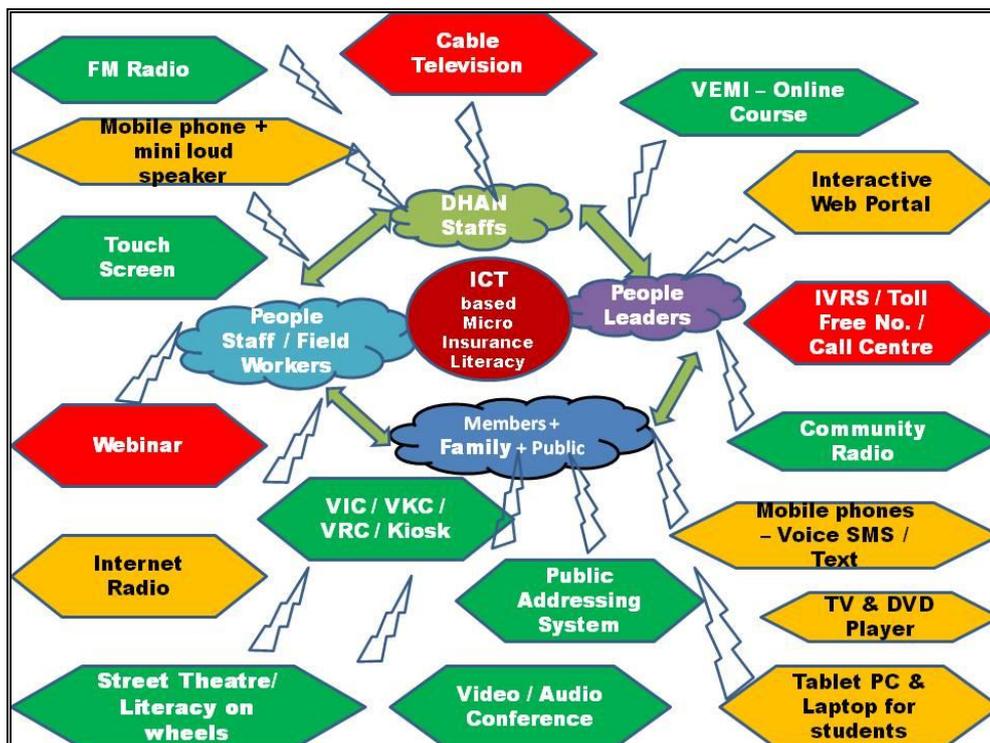


DHAN is using an integrated approach for the extension/literacy/education using conventional methods and electronic methods. Conventional methods include field training, training of trainers, street plays, dramas, flip chart, newsletters, etc. The various e-literacy tools used are shown in the figure above. Green coloured ones are those being extensively used which is complimenting and supplementing the existing methods. Similarly the orange coloured ones are being piloted recently and the red coloured are the proposed tools. This integrated approach meets the twin objectives of microinsurance services and literacy. Moreover, these tools are cost effective and built on existing

framework and hence would lead towards sustainability. For example, almost all households have television and mobile phones and hence the multimedia content is easily delivered through cable television or using DVD players. Same content can also be delivered through multimedia mobile phones. Many institutions provide services through Integrated Voice Response System (IVRS) and this awareness on using IVRS can be easily tapped for microinsurance literacy. DHAN is clear that no single method will contribute towards the success of literacy and combination of all possible methods both the conventional and electronic methods have to be used. Moreover, in the process of e-literacy the staff and field workers, volunteers and people leaders also get updated constantly and improve their knowledge. The more the number of poor people understands microinsurance, the more is the enrollment and renewal thereby not only increasing the reach but also the resources and also spreading risks on a larger area. The e-literacy is particularly much helpful in the renewal and giving continuity of the microinsurance which is very important.

## 4. Field Learning's

- ✓ ICT is very important for large scale microinsurance service delivery to ensure timely service, data analysis & reporting, transparency, better management of information for quicker decision making, early warning system and business intelligence.
- ✓ Open source tools has the advantage of bringing down the cost as well as making it interoperable, stable and upgradable thus becoming affordable for units like federations
- ✓ The highest penetration of mobile phones today is contributing for easy data capture & transfer and information dissemination through SMS, IVRS, audio SMS, etc thereby helping for better service delivery and e-literacy
- ✓ The conventional extension/literacy methods are powerful, time consuming, slightly costlier, requires more man power and resources and a combination of conventional and e-literacy methods brings down the cost, saves times and more result oriented
- ✓ The strong social capital ensures the sharing of knowledge among the SHG members during meetings thus contributing to the positive change in Knowledge, Attitude and Skill. The technology layer above the social capital layer is the right approach

## 5. Conclusion and Way Forward

The Key Messages are as follows.

a. Use of ICT tools meets the twin objectives of microinsurance services and literacy
b. Cost effective & sustainable ICT is needed for the success of microinsurance
c. Building on existing technologies compliments & supplements for the microinsurance programmes
d. Combination of normal & e-extension methods are good methods for providing microinsurance literacy
e. Use of Open Source tools brings down the cost and thereby is affordable for people managed federations

Microinsurance organisations have their own approaches and strategies in reaching out to poor people and thus they have their own ICT infrastructure and tools. Smaller organisations such as community owned federations which run their own mutual microinsurance programme may not be able to invest much on ICT. Hence, sharing of ICT resources (hardware, software, and knowledge) can bring down the costs and thus be a Win-Win situation for the group of small organizations and they can exploit the potential of ICT for both microinsurance services delivery and e-literacy.

* * * * *

# ABSTRACT

## LARGE SCALE MICROINSURANCE LITERACY AND SERVICE DELIVERY THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY

*P. Premanand, Team Leader, DHAN Foundation, Madurai, INDIA*

In the Indian context, it is very important to focus on microinsurance services and literacy to the poor & vulnerable people. A scalable, cost effective and sustainable technology which is simple, flexible and enables efficient administration is crucial for the success of the micorinsurance thus bringing in transparency and accountability. Some of these technologies adopted & proposed in DHAN Foundation are discussed below. The microinsurance programmes are implemented through Federation of Self-Help Groups consisting of the poorer sections of people who are already members in the microfinance programme.

The automatic rain gauges located in 200 villages provides hourly rainfall data to the webpage through GPRS/SMS. This has helped in designing the mutual crop insurance programme for small & marginal farmers. The rainfall information is made available in boards in the village & offices. Similarly, tagging the animal ears & digital photography has helped in the animal insurance mutual programme. A simple identification card with photograph, hologram and barcode is replacing the existing member card under the health insurance programme. Moreover, short message services (SMS) are being integrated so as provide mobile alerts on premium, medical bills & claim or wage loss amount, etc. Similarly, under the microinsurance programme for Life, facility is being made so that people can query the policy details through a defined SMS format. All these microinsurance transactions are captured on the Social Security Software made available at the people federation offices. The software is web based and developed using Java & Mysql. Also the software on mortality analysis has helped in designing the mutual microinsurance programmes.

Recently, the federations are taking up business correspondent activities with the commercial bank under the financial inclusion initiative, where mobile phones, biometric finger print module & SMART cards are used for financial transactions. Also the web based kiosk banking is another solution provided by the bank. It becomes easy for claim settlement to the people since they have bank accounts and they can encash at the kiosk banking centre & similarly for policy renewal. Moreover, the banking facility enables in the payment of premium on the same day itself. Thus there is larger scope for effective utilization of financial inclusion technologies for microinsurance.

The conventional methods of training, workshops, group discussion, newsletters, exposure visits, etc are being done for improving microinsurance literacy. Also various e-extension methods are used such as developing and deploying multimedia content in local language at the Village Information Centres (VIC) & mobile phones, periodical video chatting & audio conference sessions with experts, public screening of films in village streets, generating audio content & disseminating through Community Radio and regular announcements through Public Addressing System at the VIC's.

\* \* \* \* \*