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## Effectiveness of microinsurance during and after a disaster

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### Abstract

This research looks at the effectiveness of microinsurance services during and after a disaster and at disaster management as an effective tool for community betterment. A detailed review has been done on available research and case studies. Unfortunately, underdeveloped countries suffer due to a lack of finances during and after a disaster. Developed countries are usually not ready for any disaster at government and public levels. A disaster affected country will also be keen for financial help from donor agencies and other countries. Microinsurance would be very helpful during any disaster to overcome the financial needs at the community level. Microinsurance is a practice that can share the financial liability with the affected population during a disaster. There is no trend in Pakistan for community based microinsurance for certain reasons, although there are very good examples available for review in the region. These include microinsurance services based on community microinsurance models such as SEWA (Gujarat), Weather-Index-based insurance (Ethiopia) and Crop insurance against typhoons (Philippine). These have played a vital role in disaster risk transfer during and after disasters. This study will identify the implementation and outcome of microinsurance in Pakistan during a disaster and understand how much beneficial microinsurance would be for the betterment and recovery of affective community on an urgent basis.

### Keywords

Disaster risk transfer  
Microinsurance models  
Community based microinsurance model

### Introduction

Recently there has been an increase in micro-financing. Micro-financing tools like micro-credit have been involved in economic development. These products are offered by Non-Governmental Organizations (NGO's), Micro-Financial Institutions (MFI's) and other organizations. With the increase in demand for micro-credit, the demand for micro-insurance as a risk transferring tool has also increased. Risk financing and risk transferring tools when included within risk reduction activities, increase the capacity of the community

to bridge financial vulnerability gaps. Risk financing is a mechanism to reduce risk by ensuring funds are available whenever disasters occur. Funds are kept aside to be used whenever needed or taking loans from pre-arranged external financial facilities [8], [11], [20].

The International Association of Insurance Supervisors (IAIS) defines microinsurance as "protection of low income people against specific perils in exchange for regular premium payments proportionate

to the likelihood and cost of the risk involved". Microinsurance is a service whose main focus is on poor people, to manage their risks. The target market for microinsurance is low and irregular income people, with low literacy levels, informal means of livelihood or who are self-employed. It is a tool used for risk reduction through pro-poor financing, rural development, social security and agriculture [16]. Microinsurance can further be categorized into profit-based and non-profit-based microinsurance. The key difference between Profit-Based Microinsurance (Profit-Based MI) and Non-Profit Based Microinsurance (Non-Profit-Based MI) is that in later there is flexibility in premium payments, the client can pay in cash or in kind (wheat, maize, sugar etc.) [11].

One of the important aspects of microinsurance is its delivery to the client. Some microinsurance delivery models are as follows [1], [15]:

- **Partner-Agent Model (PAM):** In this model a public insurer works together with MFI's or NGO's. They develop a microinsurance product and the liability of absorbing the risk is on the insurer. It is distributed through established networks to lower the cost and improve accessibility.
- **Community-Based Model (CBM):** This is also called a mutual model. In this model the local people together in the form of a group and then with the understanding of MFI's and NGO's, develop and distribute a microinsurance product. They all have to absorb the risk mutually.
- **Full Service Model (FSM):** This is a commercial or public insurance model in which full services are provided. The risk has been absorbed by the insurers who provide the framework for development of the product and its distribution.
- **Provider Model (PM):** In this model the services are provided directly to the customers. This requires a legal obligation to contract. This kind of insurance is usually in connection with a credit facility. e.g., to insure for risk of default.

CB-MI reduces the cost related to any risk. In CB-MI the chance of fraud is very low due to its cashless system. In this model the focus is on a marginalized group within the community e.g. women. The premium and risk range are developed with mutual consultation to reduce unnecessary costs. The products are correctly priced and so attract a large number of people [3], [19].

### What is community based microinsurance?

Community based microinsurance schemes in different forms are vital sources of financing all around the world. One important factor for their success is that the members/clients are mostly given the opportunity to get involved in the administration and management of the schemes. This is shown in **Figure 1**, including the scheme procedures; the product design, marketing, and servicing revolves around the clients, who are members of the community.

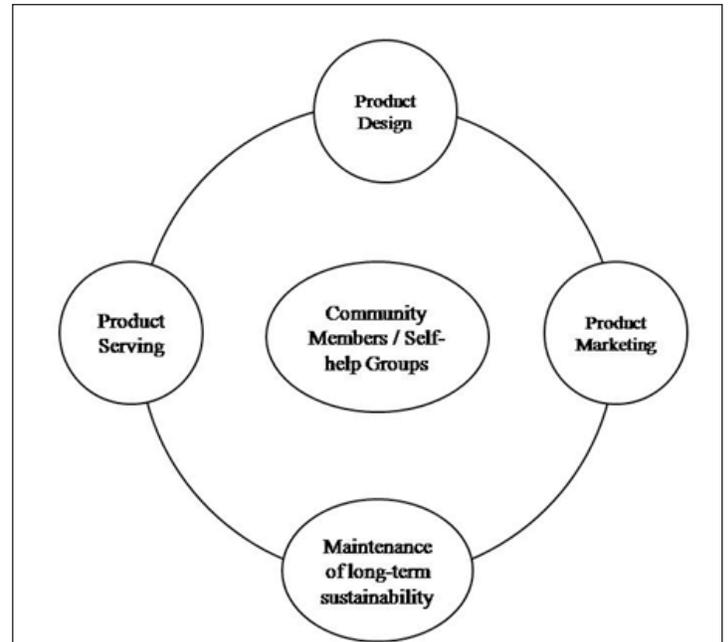


Figure 1: Community based microinsurance model

In the CB-MI model, the clients are the policy holders and manage the whole insurance program and interact with the insurance service providers. CB-MI has the advantage of being easily marketed [5]. The key features of CB-MI are;

- The needs of the target group can be easily identified.
- Trust of members is built through strong cooperative structure and close relationships.
- The ability of self-auditing.
- The marketing of the insurance is done through word-of-mouth.
- The environment of trust and collective decision-making.
- Most important is the feeling of ownership.
- It attracts voluntary activities within the community.

Community-based insurance involves risk anticipation on a community level and is an investment in physical and social infrastructure, social structure and community participation in decision-making. For risk mitigation CBI helps in building markets for household assets, helps in building community credit unions and saving habits. CBI draws down community assets that helps in risk coping. Some of the successful non-profit microinsurance project for a single risk are BRAC Health Insurance (Bangladesh), Grameen Life Insurance (Bangladesh), and Mutuelles de Sante (West Africa). For multiple risks, some of the most important micro-insurance organizations around the world are: Vimo-SEWA (India), Groupe de Recherche et d' Echanges technologiques (GRET) (Cambodia), IPTK (Bolivia) and SeguroBasico de Salud (Bolivia) [14].

The importance of CB-MI in disaster risk transfer can be described as follows: the Hyogo Framework for Action ([1], [7]) calls for building communities and nations that are resilient to disasters. In order to reduce human, economic, social and environmental losses, various useful policies and systems are put in place to reduce disaster risk.

These policies should address some of the following important aspects of disaster risk reduction:

- Need for human, financial and other resources to be allocated for disaster risk reduction.
- Integration of disaster risk reduction (DRR) into development.
- Strong legal, institutional and operational basis.
- Hazard, risk and vulnerability assessments in order to build a comprehensive early warning system.
- Participation of policy makers, scientists and other relevant organizations in the planning processes.
- Engaging media to raise awareness.
- Preparedness for an effective response.

Priority Action Number Four of the HFA's five priority actions is to reduce disaster losses by reducing the underlying risk factors. One of the important aspects of this priority action is to strengthen risk financing mechanisms. Risk transfer may not be a direct source of risk reduction but it can lessen the economic impact caused by any disaster. One of the main tools for risk transfer is insurance. Microinsurance, which is protection focused on individuals living beneath the neediness line, is a viable result. It serves to set up a successful and transparent component soon after the disaster hits. It is rougher, speedier and guarantees sufficient liquidity at the time of disaster, consequently maneuvering the trouble in general society [12]. It offers security against stocks, for example sickness, accidents, deaths, and crop and animal damages.

#### Literature review

To understand the level of importance microinsurance carries, Green, Rebekah, and Marla Petal pinpoint that even international developmental organizations like the World Bank have carried much research into microinsurance as a disaster risk transfer tool. A study reveals that the supply of microinsurance is very limited and it is required to link insurance companies or government programs with community-based insurance schemes, as the community-based organizations are widespread and take on different forms at a local level. The importance of the microinsurance is that it has the ability to break the "cycle of poverty" by securing the livelihood of farmers, businesses and households by providing them access to liquidity after their livelihood is disturbed by a disaster [13]. This insurance will help insurance product developers to invest in risk reduction projects to decrease their profit uncertainty; this will benefit the community at risk. A report has been written on the use of technology to increase the supply of microinsurance products to lowest income population. According to this report the use of low-cost methods based on the use of the internet, mobile phones and chip cards will increase the supply growth of microinsurance. Tata AIG in India is providing mobile-based microinsurance and is being very successful. The premium is also deducted from a mobile credit facility. Microcare in Uganda is providing the facility of client registration and other online forms. This research further gives an insight to the cultural barriers to microinsurance service providers, showing that for most

low income clients in developing countries the need for insurance is seen as unimportant. The lack of trust and the inability to understand the risk-pooling concept make them think that insurance is just for the rich and they do not need to be insured and should not spend their scarce resources on insurance.

In one study the main reasons why microinsurance is more beneficial than other risk management schemes has been evaluated. According to the author the advantage of microinsurance is that it targets the poorest communities in developing countries. The microinsurance schemes give an opportunity for at-risk families to direct their resources on improving their standard of living rather than spending all of their resources on risk management. Finally, microinsurance services enable the communities to avoid becoming dependent on costly loans [9]. It remarks that the provision of microinsurance policies and schemes should be easy to understand, accessible and simple.

Some successful microinsurance schemes from around the worlds include [17], [6];

- SEWA (Gujarat): This is a multiple risk (Life, health and housing) microinsurance program; it works within Gujarat state (India) and it started working in 1992. The operations are through a bank that also runs the social insurance scheme. Their customers are self-employed women providing political and organizational support along with hospital charges and insurance for their husbands. This insurance scheme includes health, life and asset insurance. The insurance policies are against fire, flood and other natural disasters. They have three options for premium per annum, (a) \$ 1.53, (b) \$ 3.67, (c) \$ 7.44 [17].
- World Bank weather-Index based insurance (Ethiopia): This operates in Alabawere da (South Ehtiopía). It was established in 2005 and targets any voluntary customer. It works under a commercial bank and operates a full service model with insurance provided by the Ethiopian insurance corporation. They cover rainfall below 20% moving average. For this under-rainfall insurance, all the insurance holders have a uniform claim for damages in deficient rainfall. One of the biggest downfalls is that those who are associated with agriculture cannot claim superior incentives. The premium per annum is 6% of the basic loan amount of rainfall insurance [18].
- Crop insurance against typhoons (Philippines): Crop insurance for rice farmers against typhoons. Farmers whose farms lie in the path of a typhoon can claim for payouts. The amount of the payout is dependent on some factors. Firstly the coverage, secondly on the distance from the typhoon path and thirdly on the wind speed. Premiums should be paid at 8 to 10% of the production cost. Micro Ensure is working as an agent and it has developed this product, while the Malayan Insurance Co is the underwriter. The data is assimilated from the Japan meteorological agency. Banks, cooperatives and MFI's sell the policies [4].

## Drawbacks of CB-I model

In the community-based model the emphasis is on the group interest rather than the individual interest. This increases interaction and so the information flow increases. This informal and frequent information flow can create privacy issues, as some people will not want to be exposed within the community, in case of serious physical or mental illness.

Another setback to such mutual schemes is that they have a smaller group size, creating uncertainty regarding claim expenses and greater exposure to risk.

The lack of technical and management skills has been one of the key problems for community-based microinsurance schemes.

## Conclusion

It has been accepted that the contribution of microinsurance reduces future disaster losses and financial vulnerability of the poor. The poor simply claim for damages and so the disaster risk is transferred. Experience of disaster microinsurance is mixed with relation to its contribution to reducing long-term losses and also the vulnerability of the poor. Though insurers have reliably and quickly settled claims, there is very little information as to how these payments could have mitigated post-disaster financial conditions. To date, there is no clear proof concerning the connection between microinsurance and shifts to higher-risk/higher-yield activities. There are issues with the affordability of premiums, trust regarding the integrity and ability of MFI's and non-acceptance of microinsurance by the poor. Despite all these issues microinsurance has played a vital role in disaster risk transfer and there is still room to attract more customers and distribute more microinsurance products.

## Recommendations

A first step should be to encourage residents of hazard-prone areas towards risk-reducing behavior. They should not always be looking to the government for compensation following a disaster. They should start keeping reserves; invest in preventative measures or insurance in order to bear the loss of recovery. Market research is very crucial for microinsurance service providers, to identify the needs of the target market and the associated risks. Governments need to support microinsurance to lessen the burden on the economy and increase access for the vulnerable sectors of the population by institutionalizing MFI's and NGO's that provide microinsurance products.

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