

***WOMEN
COMBATING
DROUGHT***



Gravis

MISEREOR

WOMEN COMBATING DROUGHT

A study on micro-finance in desert communities



Gravis

MISEREOR

Women Combating Drought

2011

GRAVIS

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FOREWORD

Since the very beginning of its work, drought mitigation has been at the fore-front of GRAVIS work with the Thar Desert communities. In the process of mitigating droughts in Thar, along with the communities, we have learnt a great deal and our learning continues. The resilience in combating the droughts shown by communities of Thar is exceptional.

GRAVIS recognizes the vulnerabilities of women in the context of droughts, as well as their potential in contributing to drought mitigation efforts. There have been models through which women have demonstrated their leadership and skills in community based programs and interventions focusing on drought mitigation. This document is an effort to understand women's roles in drought and to document the progress made so far.

I sincerely thank MISEREOR for their support to this study, the author for writing the document, GRAVIS team for their efforts and above all the women of Thar who continue to inspire us for their courage and resilience.

Shashi Tyagi
Secretary, GRAVIS

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AUTHOR'S NOTE

Natural disasters such as drought affect almost all the aspects of people's lives. However, the depth of the impression of such calamities is much more on the lives of poor and marginalised communities who have with access to minimum resources, be it natural or financial. The involvement of the community in finding the solutions to their own problem is an unquestionable pre requisite. At the community level people across various socio-economic milieus have been instrumental in finding local solutions to their problem, however, with the advent of modern civil society and the globalized thinking, the community initiatives and the indigenous mechanisms to cope with the disasters were not paid due consideration, especially, when it came to the aspects such as further exploration, research and synergisation.

The potential of micro-finance for poverty eradication is widely recognised, however, its role for disaster mitigation and especially drought mitigation has largely remained under explored. Although, there have been instances where micro-finance has played a vital role in ensuring financial security for the disaster struck societies, the micro-finance has not been at the epicenter of the drought preparedness strategies.

The rural community of the Thar Desert, that remains constantly vulnerable to drought, requires a robust drought preparedness strategy encompassing the solutions for the financial susceptibilities. Evidence and experience from the field have indicated towards the dexterity of micro-finance to deal with such situation and making the community drought-resilient. With the creation of Self Help Groups of women, and the technical and monetary support provided to them, women and consequently households and community are moving towards drought proofing, especially in financial terms, by venturing into alternative vocations and developing rural entrepreneurship. This has also contributed towards making the community recognize the role of women entrepreneurs towards financial security at the household levels and their potential role in the community and the society.

There is not only the scope but also the need for intensifying and augmenting the efforts made by GRAVIS in this regard so as to expand the outreach and channel as many benefits pragmatically possible to the drought prone rural community through the SHGs.

Dr. Neetu Sharma
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Part 1 : Drought Mitigation

Micro-finance not only recognizes the needs of the poor, it also empowers them and taps into their remarkable reservoir of energy and knowledge. In short, micro-finance has tremendous potential, its time is now and is here to stay.

-Kofi Annan

Climatic conditions of a given geographical area have a major role to play in defining the socio-economic condition of the habitants. Extreme climatic conditions for a long period of time affect the capacity of the community to make their livelihoods and move towards the sustainable atmosphere of development where they could have incessant access to productive resources and opportunities to grow as individuals and collectively as communities. Most serious of this impact is on the food security situation which gets affected severely. The impact of drought, especially in the context of desert communities, is predominantly determined by prevailing economic conditions, the structural management of the agriculture sector, water resources etc. The impact gets reflected at two levels macro and micro; at macro level, the sluggishness in aggro industries, negative growth in employment opportunities and an overall decline in country's Gross Domestic Product (GDP) index; whereas, at micro level loss of assets in crops, livestock and productive capital and ultimately loss of livelihood, financial crisis and food insecurity.

Drought is a consequence of reduced receipt of rain fall over prolonged period of time. Despite being an extreme climatic condition, it should be noted that it is a recurrent feature of climate, which actually affects virtually all climatic regimes. Most other natural hazards such as cyclones, floods, earth quakes, volcanic eruptions, and tsunamis, are quick onset events that typically result in immediate and structural effects. However, drought as a climatic anomaly stands different from other climatic hazards given its gradual onset and much prolonged and far reaching ramifications which are of much graver propensity, especially for the community which is dependent on rainfall for their agriculture and related residuary activities.

The distinct features of drought not only differentiate it from other natural hazards but also act as barriers in mitigating it. The absence of universally accepted definition of drought has resulted inconsistency in early warning and preparedness mechanisms in different climatic regions across the globe. The lack of definition, covering the varied nature and extent, also hinders clarity in policy response at policy makers' level. Further, the duration of drought ranges from months to years and the core area or epicenter might change over the time; reinforcing the need for continuous monitoring of climate and water supply indicators. Another critical aspect that affects the drought specific quick responses is the spatial expanse. However the most serious facet of drought that stands out as compared to other natural hazards is its impact which is generally non-structural and difficult to quantify; impacts are cumulative and the effects magnify when events continue from one season or year to the next.



Drought Mitigation

In simplest terms, drought mitigation could be understood as engagement of a responsive set of actions to minimize the impact of drought on livelihood and food security of affected communities and also to counter the perceived environmental challenges. Drought mitigation is a long-term and multi-sectoral undertaking with macro-level implications that include improved management of hydro-electrical resources at national level and micro-level implications such as food and livelihood security of subsistence farmers in semi-arid lands. The need and importance of drought mitigation should be seen in the light of its large impact on society and environment than that of any other natural hazard with due acknowledgment to its recurrent nature.

The adaption and application of the drought mitigation strategies implemented globally; largely depend on climatic/geographic specific cities of given region, size of countries economy and socio-political priorities. The drought mitigation strategies, especially in the context of water security for community can be seen at macro as well as micro level. At macro level, drought conditions require large scale efforts to minimize the resultant adverse impact beforehand. Efficient and effective storage of surface water through measures such as construction of dams and rainwater harvesting are the most common macro level strategies that are adhered to for drought mitigation. In addition to that, regulation and restoration of ground water particularly in drought-prone zones, is a much more widespread, and socially-sustainable strategy that makes use of groundwater storage to combat water-demand variability resulting from persistent drought and climatic change. Related to these strategies is waste water management that works



A dry Pond



on the idea of treatment of waste and impure water to make it useable for agricultural and house household needs.

The initiatives at the macro level, however, do not suffice for ensuring water security for the community, which actually entails customisation of micro level interventions for the community depending upon their socio-economic conditions and occupations major sources of income. As regards the primarily agrarian communities, measures that have the potential to secure the agriculture from the wrath of extreme climatic scenarios, are very important. In the context of drought, crop rotation, fodder management, construction of water saving structures such as *khadin* and application of other such techniques such as growing less water consuming crops, are effective and viable strategies which have been used by the community for a long time. Crop rotation is one of the oldest and most effective strategies to balance the fertility of land and groundwater level. It refers to the practice of cultivating varied types of crops in the same space in sequential seasons. Fodder management is particularly vital for the community depending on cattle. In drought situation, desert communities face difficulties in feeding their cattle also tend to sell animals on a much lower price to buy food grains for their own survival. In drought prone areas, fodder generating crops and dry fodder stocks are encouraged so that people are not forced to sell out their animals or migrate to nearby locations in search of fodder. Despite having a range of safeguards for agriculture and crop management, it is important to simultaneously build the capacity of the community to embrace alternative employment, so that their financial security could be taken care of at least in the case of extended period of deficit rainfall when the agricultural produce has got severely affected.

The occurrence of drought is, directly and indirectly, linked with abrasion of livelihood resources. And it is critical to ensure that the communities are made drought resistant to be able to cope with the financial emergencies and shocks. And for that to be ensured it is important that the community is enabled to make use of the locally available resources and work collectively for towards alternative viable vocations that could lead to the creation of a drought resilient community.

Community Based Approach to Drought Mitigation

For a poor farming community such as the one in the Thar, droughts may result into a variety of negative consequences such as loss of agricultural produce and subsequently livelihoods. The scarcity of, or inaccessibility to safe drinking water, unavailability of water for the cattle, loss of cattle in extreme situations, damages to crop, pasture, livestock and forests, are some of the negative impacts of the drought on the rural community of the Thar. Many of the pastorales also migrate to far off places leaving their families behind and such a situation ultimately results in not only affecting the ecological balance but also restricts the poor community from the benefits of the social and economic development, which is otherwise available to communities in other geographical settings

The complex phenomenon of drought needs a multi-faceted and interdisciplinary approach in drought mitigation as well. One of the most promising strategies towards drought mitigation is



the participation of the community in the planning and execution of the mitigation measures. Community ownership of such efforts lends sustainability and vigour to the drought mitigation.

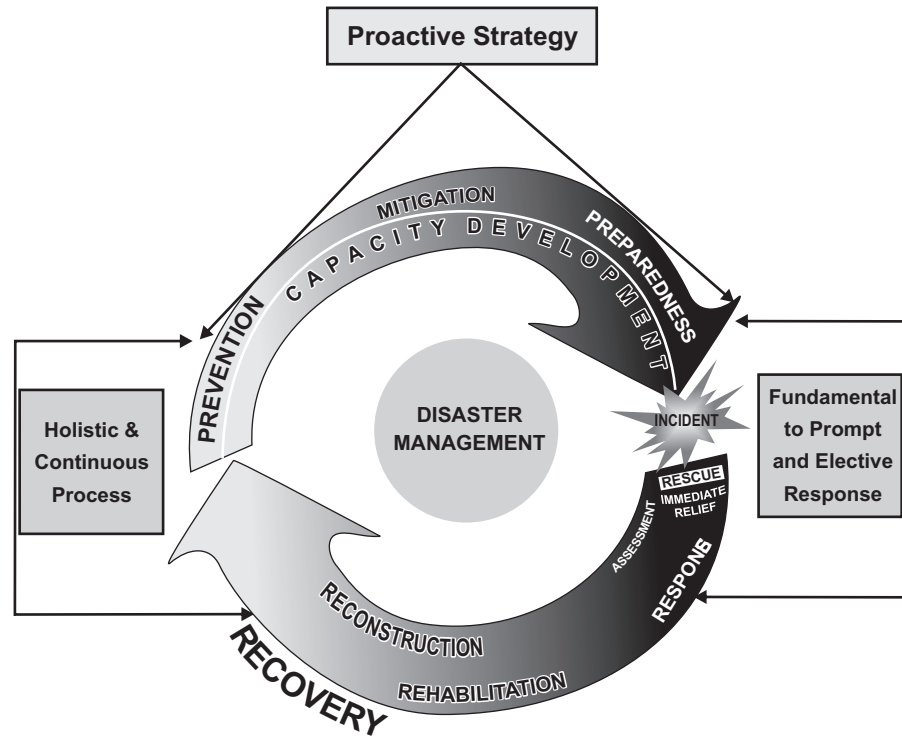
The ability to cope with drought varies from country to country and from one region, community or population group to another. In most of the rural communities, owing to the limited access to information, people are ill-informed about the concept, different forms, and underlying causes of vulnerability to drought and they find it is difficult to analyse. However, another problem in its analysis is that the conventional development paradigm has not accorded the perceptions of local people and duty bearers the stakeholders in drought mitigation sufficient attention. This neglect flies in the face of logic as it is precisely local people who have the most knowledge and understanding about their vulnerabilities and their coping strategies. What local people lack is a broader perspective about the causes and consequences of such a disaster.

"The local community is taken as the primary focus of attention (in disaster reduction) since that is the common unit which is affected by disaster and, more importantly, responds to deal with the event."

Russell Dynes

Technological advances, globally, paved the way for changes in the magnitude and approaches to respond disasters (including drought). The change is visible from disaster response and management to community-based risk reduction and disaster preparedness. This shift is also experienced in approach towards disaster response (and preparedness) from a need based approach to a rights and community based approach. On one side, the rights-based approach gives priority to the affected local community's right to participate in the decision-making and programme planning and on the other, it holds the state responsible to protect (and prevent) human rights violations; particularly the most important human right the Right to Life. The community based approach also corrects the defects of the top-down approach in development planning and disaster management which, sometimes, fails to address local needs because of ignorance with regard to the potentiality of indigenous resources and capacities.

The Community Based Drought Mitigation (CBDM) approach aims at transforming the vulnerable or at-risk communities to drought resilient communities. This becomes seemingly important as drought is a natural hazard and its prediction and prevention is a difficult challenge. The CBDM related process and steps like- community orientation, community profiling, community risk assessment, stakeholder identification and community planning etc. may vary across community contexts and organizational/government mandates but ultimately leading towards behavioural change in community. It is extremely important to note that the community based drought mitigation requires capacity building of the community in all spheres such as management, leaders and technology.



Comprehensive Drought Mitigation Process

The figure above depicts the process that may be followed for drought preparedness and mitigation. As reflected it is a continuous process that should be sustained even in the normal days when the calamity is not foreseen. Capacity development, preparedness, reconstruction, rehabilitation and response mechanisms are integral parts of such a strategy.



Part 2 : Micro-finance and drought

Micro-finance is generally defined as the provision of thrift, credit and other financial services such as money transfer and micro insurance products for the poor, to enable them to raise their income levels. It may include an entire range of financial services such as savings, loans, payment transactions and insurance that are customised to the needs of the poorer population who traditionally lack access to finances, banking and related services. Such services enable poor households to gain access to financial services and thus to take their socio-economic development into their own hands. Micro-finance services empower the poor households to accumulate the resources for investment and compliment their savings for initiating new business ventures. In this manner such services help the receivers of these services overcome the challenges of competitive markets and also lend sustain ability to their endeavours. Another crucial aspect of micro financing is the provision of credit and internal loaning that act as risk proofing for very small entrepreneurs and poor farmers that arise from the borrowing from informal money lenders in rural set ups. Micro-finance prevents the communities to get into the debt traps and also impart financial viability to their business ventures consequently making them prepared for any emergency situations.

Micro-finance all over the world has evolved as a phenomenon with a vision for a world in which poor and marginalised households can make use of a range of financial services for them ultimately to be able to come out of difficult and perennially precarious. Despite this marvelous vision for the upliftment of the poor rural society and its infiltration into most of the developing world, the impact and influence on the micro-finance initiatives have not been adequately assessed or documented, especially in the context of disaster mitigation and preparedness.

The philosophy behind micro-finance is that if the poor have access to at least basic financial services, their financial lives will be more secure, and consequently they will find themselves in a situation in which they can improve the quality of their lives in terms of development indicators such as access to resources, healthcare facilities, education, etc. Lost opportunities for development are not only identified, but encouraged as well so that the communities should be protected from further exploitation and move towards sustainable development, while utilising their own and other complementary resources.

Especially in the context of small scale activities and collective low scale business endeavours by the rural community, micro-finance is an efficient instrument. Poor people who do not have the capabilities to make large scale financial commitments and savings can make use of micro-finance service effectively in order to facilitate pooling of resources and generating self employment, which could be and is generally supported by external agencies including governments and development organisations.

Depending on varying needs and socio-economic environments, micro-finance finds expression in various forms across various regions. However, there are few features of micro-finance that are found universally in most of the micro-finance initiatives.



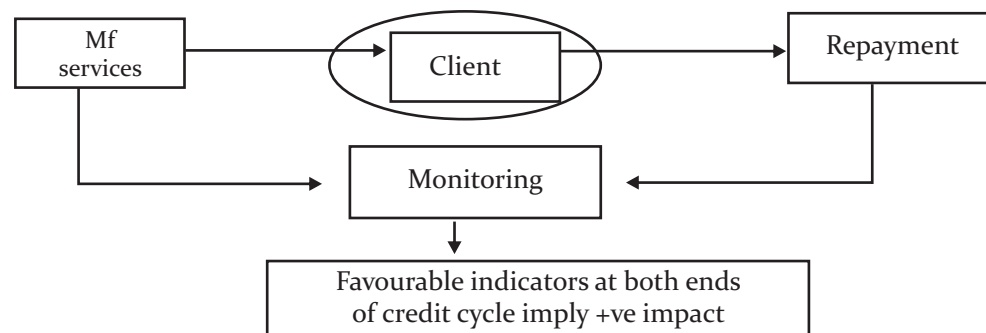
Most of the time micro-finance, unlike other business ventures, is supported with the sole objective of enabling the group of people to move towards self independence and empowerment. The supporting agencies do not see profit as an objective in such initiatives. Another important feature of micro-finance is that it works with groups of people and not with individuals. It is also to be noted that micro-finance generally caters to poorer people who are not in a position to do large and long term savings. Most of the time, the micro financing is supported by development organisations or the government, however, it always strives to move towards self sufficiency in longer term.

Micro- finance for Poverty Eradication and Empowerment

It has been widely recognized that micro-finance has the potential to uplift the poor and marginalized communities, especially in the developing world. All over the world efforts have been made to devise novel technique for the application and operation of micro-finance in the poor communities so as to make them more relevant for them. Despite this, the penetration of the micro-finance services among those who are really in need of them is either negligible or non effective. There have been problems of outreach, compliance with the needs well as the ignorance and resistance of the rural communities to such ideas, which in some cases do not go well with their socio- cultural norms.

Whatever be the case, the potential of micro-finance has largely been under utilised, especially for the benefit of the most poor communities. Use of micro-finance to ensure financial security of the disaster prone communities has been one of the key areas that need to be explored much more aggressively. Limited research done in this area has pointed towards some unique latent benefits and utilities that only micro-finance can offer for the communities who are prone to natural disaster, such as the rural community in Thar Desert.

Depending upon the location, outreach and objectives of the venture, micro-finance and credit services can be provided by a are range of institutions which may include non-government organizations(NGOs), credit union, non-bank financial intermediaries and commercial banks. It is most important to note that generally, micro-finance clients are poor and low income people that do not have access to other formal financial institutions. Micro-finance clients are usually self-employed or house hold based entrepreneurs.



Micro-finance process



Micro-finance as a process is to be based upon the needs of the poor communities. As indicated in the figure above the services, which may include credit, loan technical support, is provided to the members/clients directly and in traditional micro-finance the repayments are done by the clients. Entire process is monitored closely by the community and the service provider and the process continues if the positive results are obtained at both the sides. Although this process yields dividends for both the sides, in many cases the services providers do it only with the objective of uplifting the community and without seeking any monetary gains. Community participation, monitoring and ownership of the entire process assume greater importance in such situations.

Micro-finance is primarily seen as lending institutional arrangements which could take various forms depending upon the nature and the source of funds:

Associations : An association is formed by the poor in community to offer micro-finance services (micro savings, micro credit, micro-insurance, etc.) to themselves. The association, which can be formed on the basis of gender, religion, or political and cultural orientation of its members, can also then gather capital and identified intermediates between banks, MFIs and its members. SHGs fall in this category of micro financing.

Community Banking : Community Banks/Village Banks are formal versions of 'associations' and are created by members of a target community who wish to improve their living standards and to generate employment. By offering micro-finance services, these banks seek to develop their communities. Guarantees are provided by social collateral (peer-pressure) as services are distributed through 5-member groups where each member's eligibility for loans is based on his/her peer's performance.

Cooperatives : Cooperatives are very much like 'associations and Community Banks' except that their ownership structure does not include the poor. A group of middle or upper class individuals may form a co-op to offer micro-finance services to the poor.

Credit Unions : In a credit union, members of a target community gather their money and make loans to one another at low interest rates. Compared to community banks, credit unions are smaller and non-profit oriented, charging interest rates that merely allow sustainability.

Non-Governmental Organizations (NGOs) : Unlike community-based models, NGOs are 'external organizations' and their activities range from offering micro-finance services (loans, insurance, savings, etc.) to improving credit rating of the poor, training, education and research. NGOs may also act as intermediaries between the poor and donor agencies (UN, ADB, World Bank) and operate locally, as well as globally (through a physical or online presence).

Banks : Commercial Banks, as well as specialized Micro-finance Banks offer various financial services to the poor but the main purpose may be to secure a high return on investment. Unlike other models, the aim is social development as well as financial progress, beyond institutional sustainability.

Although there have been other types of micro-finance arrangements also that have been in existence, such as rotating funds in which individuals of the group are given loan in turns, the



nature of micro-finance in India has primarily been based on the operational structures of SHGs and the cooperative and other types of banks supported by either development organisations or the government itself.

Given the need and the potential of the micro-finance, which has diversified itself to be able to cater to the needs of rural poor as well, the SHG and individual banking models which are predominantly operated through micro financing institutions, primarily focus on the poverty alleviation and sustainable development for rural poor in India. It is also worth noticing that most of the disbursement towards the micro credits happens through SHG bank linkage mode in the country. It is also because of the fact that this form of micro-finance is very simple and least technical in terms of procedures and can be conveniently adopted by the rural community. The potential to deal with the financial crisis arising out of the drought can also be dealt with very effectively through application of such model.

In the SHG model of micro-finance, the objectives are largely defined and guided by the recognition of the need to empower the community. SHGs normally offer credits, loaning services, access to markets, encouragement of small entrepreneurship's as well as the technical support require to make all this operate. The growth of such kind of micro-finance has been encouraged primarily by conscious actions of national governments, Non-Governmental Organizations (NGOs), and the donors who view micro-finance as an effective tool for eradicating poverty and bring about development in the impoverished areas. The powerful push behind this huge and increasing support for micro-finance indicated that national economic and social impacts are significant and it needs to be examined more closely.

Use of micro-finance in drought mitigation

Poor people are the hardest hit by disasters and it's only obvious that micro-finance deals with such issue also and helps its beneficiaries prevent and cope with such emergencies such as seasonal floods, water shortage, droughts, hurricanes, earthquakes, etc. There are a number of ways through which micro-finance can be used for building community resilience against drought.

Community mobilization : First and foremost benefit of micro-finance is that it provides an opportunity to the otherwise fragmented community, especially rural women to come together and reflect upon their common problems and issues, assess the ability of the group to combat disasters such as drought and also find collective solutions.

Preparation of collective disaster mitigation plan : Detailed disaster mitigation and management plans can be prepared along with the community and the same can be applied very efficiently through the micro-finance initiatives. This could also include setting up an emergency cash fund, which may be used to cover the cost of loan defaults caused by the crisis. This precaution will benefit both the client, and micro-finance provider itself in terms of their financial and social objectives.



Building up the Asset/Income Base of the Poor : The poor will become less vulnerable to natural disasters if they have a wide asset or income base (savings, houses, income, etc.) that will help them deal with the sudden cash outflow in case of emergencies caused by natural disasters, such as poor health, damaged property, death of livestock, etc. By simply offering products such as micro-savings, housing loans, micro-insurance, and consumption loans, micro-finance providers can make their clients less susceptible to the shocks of climate change.

Flexible Credit Recovery : Making loan terms flexible goes a long way in helping rural communities cope with natural disasters; repayment schedules can be relaxed or suspended, installment amounts can be varied, interest rates can be staggered, or new loans can be given out to help the poor resume their occupations in the drought hit areas.

Drought Proofing : Through the creation of the various groups the ideas and the techniques for water conservations at the household level and for agriculture can be popularized among the rural communities. For example, borrowers can be asked to stock up non-perishable food sources, which will come in handy if access to retail outlets, or retail outlets themselves were to be destroyed by drought, or some other event. At the same time, micro-finance providers can ask borrowers to immunize their livestock against common water-borne diseases that are a result of floods. Establishment of collective seed banks and pooling of resources for construction of bunds are other such examples of utilizing the community level processes for drought proofing.

Offering Logistical Support : The extensive and efficient distribution network of micro-finance providers makes them ideal for distributing potable water, food and medical aid, and arranging medical clinics for victims of natural disasters. The donor agencies or the facilitator non governmental organization may carry out the relief effort on their own, in which case, the cost of the donated items may be recovered later.

Hence, there are a number of ways through which micro-finance can provide social security to the families in the disaster prone areas. Depending on the vulnerabilities of the disaster prone areas and the communities, and the access to and availability of the indigenous social security mechanism, the reach and relevance of micro-finance can be maximised and augmented. Various products generated from the micro-finance, such as micro insurance, financial loans and subsidies, and infra structural support, can be effectively utilised to by the communities in order to be able to cope with the drought.

It is well known that the people living below the poverty lines are most vulnerable to the natural disasters such as drought and the perennial threat of drought always looms large on them. With the onset of the drought the bare means to livelihood also become illusive and they become further impoverished and unable to fend for themselves. In such a situation micro-finance interventions such lending and collective enterprise can lend the much needed support.



Part 3 : GRAVIS interventions in Thar

Thar Desert is known for its tough terrain, challenging climatic conditions and acute water scarcity. Given this, ensuring water security for the people of this region has been a quintessential constituent of GRAVIS' intervention in the area. Water Security, Food Security, Sanitation, Hygiene, Education and community empowerment are all important aspects of GRAVIS interventions. In the 'Community led Drought Mitigation in Thar' (CDMT) project, GRAVIS and MISEREOR seek a common goal i.e. to mitigate drought and consequently poverty in 12 villages of the Thar Desert through community led action focusing on enhanced water and food security, empowerment of women, improvement of health and hygiene and capacity building of the community as well as community based organisations. In addition to the community empowerment as the ultimate objective, micro-finance, in its various forms, has also been the epitome of most of the interventions,.

The endeavours and the strategies of GRAVIS for drought mitigation are driven towards enhancing water security through construction of rainwater harvesting systems and through imparting training on water conservation; increasing availability of food in the project region through promoting rain-fed agriculture, horticulture and seed conservation; increasing the family income and secure the livelihood of the village inhabitants; support the cause of the community through active lobbying of women Self Help Groups and village development committees; and also enhancing the participation of women in decision making processes within the family and on village level.

Capacity building of community and community leaders

Capacity building and skill development in coping with the natural calamity along with the organisational skills that may provide grit and impetus to the community level initiatives, have constituted a major chunk of the interventions as part of the community preparedness to cope with the drought. Such capacity building processes have been geared towards orienting the community on the coping strategies to be adopted before the onset of drought and also during the drought.

Strategy : Village Development Committees, which are the most fundamental unit of community organization, have been the major recipients of these trainings and the idea has been to facilitate a ripple effect for the entire community. The aspects on which the trainings were provided ranged from strategies for water conservation, safety nets for agriculture, access to productive resources, cattle security and protection from diseases.

Household water security : One of the very elementary and crucial ways of coping with the drought is to ensure water security at the household level, which can be actualized through various means such as adopting rainwater harvesting systems and construction of *taankas*. During the trainings conducted for the village development committees which have representatives from various socio- economic and cultural sections of the village, including women, these strategies were highlighted and their benefits are shared. Such trainings have



primarily focused on the various means of water conservation at household level such as construction of *taankas* and rain water conservation.

Livelihood : Although it is an irony, but the people in the Thar, which is a rain deficit area, are primarily dependent either on agriculture or related residuary activities. Recurrent drought affects the agricultural products and their livelihood which is contingent to it. Any strategy to cope with drought has to take into account this very fact and should have built in mechanisms to overcome the potential damages occurring because of drought. Such a vision has guided the drought prepared strategies adopted and executed by GRAVIS in the Thar.

Agriculture which is the primary vocation of people in the Thar can be protected against the wrath of the drought by resorting to some pragmatic and effective ways, such as construction of bunds, which control the erosion of soil and conserve moisture, as mentioned earlier. During the trainings conducted for the VDC the importance of such bunds is discussed at length. Other measures that have formed the part of capacity building included other innovative drought proofing strategies that could be applied at farms, such as use of improved variety of seeds, and provision of community seed banks. It has been widely publicized that the improved variety of seeds can be procured through government or any other agriculture research institute such as CAZRI, KVK and local seed corporations.

Livestock management : Since livestock is another major source of income and livelihood of the people in Thar and it is also equally, if not more vulnerable to ire of drought, fodder security for the cattle also assumes importance. During the trainings on the subjects most efficient ways of fodder management are shared with the VDC members and the farmers, such as the positioning of the fodder and varieties of fodder that can be preserved for a relatively longer period of time. It was discusses that the fodder can be collected in the houses also and the same (Grass, pulses, pearl millet, sorghum & other legumes) should be kept as in circular or rectangular form and should be covered with the shed made of ordinary materials. To protect the fodder from being consumed by other animals, trenches should be made with the help of thorny bushes, around the hay. Fodder management done in a planned and systematic manner during the normal rainfall period can be used at the time of prolonged droughts.

Cattle is also susceptible to various health related problems and diseases, especially during water scarcity. Consultation with a veterinary doctor is absolutely important to ensure safe health for the cattle and various schemes of the state government of Rajasthan, benefits of which can be availed of.

Protection from disease : Drought also makes people vulnerable to various kinds of health problems generating because of lack of hygiene, scarcity of adequate nutritious food and also exposure to and use of contaminated water. Preventive as well as curative measures for protection and coping with such a situation must also take this into cognizance and health preparedness should also be a constituent of the drought preparedness strategies. This is important since the community health and community's drought coping capacity are concomitant to each other and health vigilance at the household and community level can also make drought mitigation interventions much more effective and sustainable. The inclusion of health awareness and



prevention from disease thus has been an integral part of GRAVIS' drought mitigation strategies. Conscious efforts have been made by GRAVIS and the organisation also deals with the health related issues not only measures such as generating awareness among people on community health and its importance, but also training of community leaders and village health workers on best community health practices.

Supporting Household water security by providing Material support

Improving access to water for household use and ensuring water security at the times of prolonged droughts has to start by making appropriate arrangements and equipping the households with optimum water resources and water conservation tools when the natural water sources are available. GRAVIS has also extended its support by providing infrastructural and material support to the villagers to some extent depending upon the availability of resources.

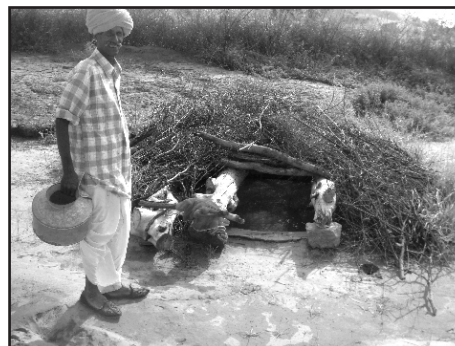
Construction of taanka : A *taanka* is an underground water tank of 20,000 liters capacity which is constructed under the surface of the earth, in close vicinity of the home. Rainwater is directed from a surrounding sloped catchment on the surface into this underground tank. Such support has included assistance in construction of *taanka* which is meant for providing the drinking water to a family or a small group of families. *taanka* allows the families to store the rainwater during average rainfall of 100 120 mm.

The annual rainfall in Western Rajasthan is uncertain but in the Phalsund area, where the project CDMT is being implemented, it is too low. The groundwater is saline and the villagers are not able to access the drinking water from any other source. All the villagers have no option but to drink saline water.. With the financial support of GRAVIS, under CDMT, 32 *taankas* were constructed with water storage facility of upto 20,000 liters in the areas where the drought situation is acute and such an intervention has the capacity to facilitate water security for the families for nearly 4 to 6 months. This has further relieved them from the pain of purchasing water during prolonged droughts.

GRAVIS also facilitated the participatory and objective process in the VDC (Village Development Committee) for the selection of *taanka* beneficiaries, in which the families that have no source of water within the periphery of 1.5 kms, were selected.



New taanka



An old taanka



Renovation of naadis: Naadi is village pond which is use for the community. It is use for collecting water for the community for drinking and also use for the drinking purpose for the livestock Although GRAVIS planned to provide support in the renovation of *naadis*, the *Gram Panchayat* (local self government unit) took cognizance of this problem and initiated the process of renovation of *naadis* under the MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act). This has helped to a great extent in complementing the efforts being made by GRAVIS.

Construction of khadin : As mentioned earlier, *khadin*, is a runoff based farming system constructed for a group of farmers. In this system, runoff from a large catchment is intercepted against a 3.5' to 4.5' high of earthen bund down slope and crops are grown in the submerging run-on area. The shape and size of a *khadin* depends on average rainfall, catchment area, slop and soil type. We introduced the spillway techniques in the *khadin*. Spillway drains out surplus rainwater stored in the *khadin* that is not needed for crops.



A khadin land

Construction of *khadins* not only prevented soil erosion and conserves water, it also generated employment in that area. It was noticed that even after the implementation of the MGNREGA in the district the employment opportunities were very limited and there were very few wage works available for the people who were otherwise forced to migrate to other places in the want of viable livelihood options. 24 *khadins* were constructed by GRVAIS under project CDMT and approximately 35 - 40 people got wages at each *khadin*. Soil erosion is reduced after *khadin* construction. After good rain, soil fertility of the land will be increased.

Ensuring Food security at the household level : Water scarcity has a direct relation with the food security and nutritional levels among people. In addition to the water conservation and the techniques to protect crops, it is equally important to give adequate importance to the food security at household level. Making the sources of nutritious food available and building the capacities for sustaining the same has also been a critical aspect of interventions made by GRAVIS:

Horticulture Units: Access to nutritious vegetables and fruits comes across as a challenge during the times of drought which further leads to a lower level of malnourishment. The unavailability of micro nutrients makes them vulnerable to several seasonal diseases affecting their health. Horticulture units in the drought prone areas help ensure the accessibility of seasonal fruits and vegetables for the families.



Horticulture Unit



Establishment of horticulture units at the household level are being supported by GRAVIS in various ways. Saplings are given to those who have limited water resources at their disposal and the plantation is done during the rainy season. Grafts of lemon, gooseberry and other such fruits and vegetables are planted which have the endurance to survive even when water is scarce. The fruits from these plants are ready within six months and prepare the family for the long and dry summer when the rains are either scanty or negligible. Various techniques that could be applied to maximize the production are also shared with the beneficiaries and assistance is also provided in terms measures to protect the plants from stray animals and alternate water sources that can be used for watering the plants.

Additionally, low water consuming techniques are used that can be applied very economically saving not only water but time and money also. Families were introduced to and oriented on the use of the pitcher drip system under the ground that brings the water consumption down by one third and also results in the higher survival rates, around 80% most of the time.

This plant will give fruit within six months after plantation. A family can easily get the fruits within the six months and will use it making pickle, chutney and lemon juice for home use. The beneficiaries used the home waste water for watering the plants like after the cattle drinking; the rest water is used in horticulture units.

Seed Banks : A key problem for farmers in drought-prone areas is ensuring seed availability of local varieties, particularly after drought. After extended drought, farmers are short of seeds because crop failure means there is no seed for planting the following year. Additionally poor farm households are often so desperate for food that seeds stocks are used for food. Poor farmers do not have the cash resources to buy new seed from merchants. In any case, such merchants sell commercial varieties, which are often less suitable for drier conditions, and do not always have the full range of open-pollinated varieties needed to spread risk of crop failure. Although farmers have traditional seed-storing practices to keep away pests and to discourage human consumption this is often insufficient.

In addition to popularising the concept of community seed banks, GRAVIS has also been supporting the creation of community seed banks and arrangements for this such as storage of seeds and the arrangements of bio pesticides have also been facilitated. The seed banks are established after the harvest, and GRAVIS has provided the technical expertise regarding the storage as well as the optimum quantity of improved variety of seeds to be stored. Although the results of such an intervention are yet to be seen, the seed banks are bound to facilitate access to quality seeds to the farmers even at the time of acute drought and hence this is a robust drought mitigation strategy for the agriculturists in the area.

Approach of community mobilization and ownership

There are several measures and initiatives that are to be adopted and applied in coherence for a community to be able to become drought proof and prepared for any drought related crisis. However, the strategy and approach that should guide and inform these endeavours must be



based on the virtues of self reliance, self determination and sustainability.

Working with the local authorities and complementing their efforts : Role of community and the sense of belongingness among them, with regard to any endeavor driven towards the disaster mitigation and preparedness, are sine qua none for these to be able to effective, successful as well as sustainable. Community ownership contributes to increased community cohesion and confidence, community regeneration and enhanced sustainability of initiatives. Keeping this in view, GRAVIS has worked closely with the community, community based organisations and local self-government structures at the village level.

Ensuring community ownership of endeavours : The emphasis on the formation, role and capacity building of the Village Development Committees (VDCs) is an indication of this recognition. In addition to assisting the community in organizing themselves, GRAVIS has also imparted them trainings on a range of issues such as leadership, collective work and democratic functioning, in addition to the technicalities of farming to make it drought proof, judicious utilization of available water resources, importance of following best health practices, etc.

VDCs, as mentioned are also the basic unit of community organisations and they are made equal partners in the process of drought preparedness by way of empowering them to be able to objectively select the prospective beneficiaries of material support such construction of *taankas*, *khadins* and formation of horticulture units.

Process of selecting the beneficiaries : Interestingly and most importantly all the decisions with regard to beneficiaries are taken either by the VDCs or SHGs in a collective, participatory and democratic manner, entirely on the basis of the altitude and gravity of the problems being faced by the prospective beneficiaries. Such decisions are taken normally through consensus in the regular meetings of the VDCs and SHGs.

Empowerment and self reliance : Knowledge and information sharing with local communities helps build local capacity to better prepare for and respond to emergencies. It creates a sense of ownership and responsibility for action in the event of a disaster. Knowledge sharing and capacity building of the community, especially on the technical aspects of the disaster preparedness and management is of critical importance due to the high vulnerability of the communities in the Thar. Such an approach leads to the sustained capacity of the communities to deal with the disasters effectively and reduces the risks significantly. Incremental weaning of the external support can also be achieved and empowerment and self reliance of the community would also be a progeny of such an intervention which would create resilience among the rural communities.

Training on rain fed Agriculture : Since the agriculture in the Thar desert depends on the limited and sporadic rainfall that the region receives. It is extremely important for the farmers to exploit the potential of the rainwater in the best possible way. Considering this, the training on the rain-fed agricultural emphasized the need and relevance of organic farming, efficient and effective use of compost as well as the importance of accumulating seeds for crisis situation. In



addition to this, the farmers were also introduced to the innovative technique of developing and maintaining Horticulture gardens and benefits of planting various varieties of fruits that can be grown in drought prone areas as well. The produce from such trees also provide good returns value since market value of these fruits are high.

In addition to this, farmers have also been imparted with the required trainings on cultivating various fruit bearing trees so that these trees grow well and the produce from these trees and could be maximized. Customized use, appropriate timings and season during the year and the methodologies of various processes involved in farming for various plants such as pruning, grafting etc., were discussed at length during these trainings

Other water conservation techniques and judicious use of water for farming are also shared with the farmers during the trainings. In addition to this, the resource person conducting these discussed techniques such drip irrigation and the use of quality seeds. All such trainings were organized in collaboration with and with technical support from the (CAZRI) and NRM.

Exposure to various innovative agricultural techniques : With a view to introduce and orient the farmers and the members of VDCs to various scientific techniques applied by CAZRI, exposure visits were organized and facilitated by GRAVIS. This visit encouraged and helped the farmers to understand and apply these techniques, which were a combination of indigenous and scientific techniques to their individual farms.

Community led Drought Mitigation and Micro-finance

At the time of any natural calamities, people who are affected by it are also those who make devise various means and strategies to deal with it and respond to such calamities within their limitation. Well thought out plan along with the community ownership for disasters such as drought, ensures that the local needs are addressed effectively and also community resources are judiciously used for sustained drought preparedness and mitigation. As discussed, community's stake in the process of drought preparedness and mitigation is imperative and important and the involvement of community in mitigating drought is ought to be multi pronged and multifaceted. Such an involvement may find expression in mobilizing and conserving resources, skill development and awareness among people in application of drought proofing strategies, and also while mobilizing collective financial and material resources to be collectively utilized at the time of elongated drought. Recognizing this very fact almost all the initiatives and the interventions carried out by GRAVIS have been informed by the community wisdom through various community based organisations in the villages, primarily village development committees and Self Help Groups of women. Use of micro-finance with the community has primarily been done through the creation of Self Help Groups and by supporting them in various ways.

Creation of community based groups : Mobilising and organising the community is the first step towards generating collective responsiveness and getting the community involved in any initiative meant for their welfare, safety or development. Community organizing is a process of



developing leadership among individuals and the process of building power for collectives both with the goal of creating change. Community organizing is best described as seeking empowerment, both as a process and an outcome.

At the onset of the project interventions, the community organisations were almost non-existent in the most of the remote villages of the Thar. Incessant efforts and series of mass meetings have been conducted along with the community members and the leader to persuade and convince them to create Village Development Committees in the villages. All the project interventions are carried out in conjunction and collaboration with and with the approval of these grass roots structures that have representation of almost all the socio-economic and cultural groups and clans of the village.

Creation and formation of Self Help Groups of women has been a much more complex and colossal task primarily because of the grim importance being attached to the role of women in the community level decision making and discrimination meted out on women. Women in the rural areas of Thar are generally less educated and informed about their rights and not empowered and assertive enough to be able to voice their concerns and impact community issues. Among other benefits, Self Help Groups help the cause of women empowerment, as other micro-finance tools do. The fact that most Self Help Groups are composed of women, in itself, is important because it shows women in developing countries are taking financial matters into their own hands and are attempting to improve their livelihoods via increased access to financial services.

GRAVIS, worked closely with the local community and with the women in the area and mobilized women groups in various villages to form Self Help Groups and such SHGs have become a vibrant platform for women to discuss many issues concerning them as well as a means for them to be financially independent.



SHGs Meeting

Empowering the community based

organisations/SHGs : After the formation the subsequent step has been the equipping them with the skills and expertise enabling them for taking objective and independent decisions by adopting a set of norms and procedures to conduct themselves.

Orientation and capacity building : The newly created SHGs as well as VDCs are oriented on a regular basis on a range of aspects such as leadership, management of the committees, record keeping and maintenance, strategies to cope with drought in farming, preparedness for natural disaster, importance of community health and hygiene and the also trainings of SHGs that would



empower and enable them to take up some financially viable vocation. Especially the SHG members are oriented so as to professionalize their functioning and they are given training on financial management including the systems and norms for internal loaning among the same group, regular savings and meetings, as well as the linkages with the government schemes.

Combating health hazards : Health is an important component of drought preparedness and mitigation especially given a situation where hygiene and nutrition levels take a plunge during low rainfalls and scarcity of water and inaccessibility to nutritious fruits and vegetables. GRAVIS has intervened at various levels in order to ensure better health resilience and health conditions for the people of Thar.



*Medical and immunization camp
by GRAVIS team*

Health awareness and support through medical camps have been a regular feature of the drought mitigation programme. In addition to the training on prevention of communicable diseases and water borne diseases is also provided. Because of low level of hygiene maintained in the village owing to the water scarcity diseases such as Malaria and Dengue are rampant on many parts of Thar. By organizing medical camps and health check ups, efforts are made to generate awareness among people on the precautions that can be taken for keeping the epidemic diseases at bay. Selected village health workers (VHWs) and the ANMs in the operational village participate in conducting the programmes on general health awareness and immunization linkages have also been explored with the government schemes and programmes so that rural community could benefit from them as well.

Training of VHWs and ANMs: Prior to organizing such programmes VHWs are selected from the operational villages in which the health camps and health awareness programmes were being organised running and they are then trained to conduct capacity building programmes for VDCs, SHGs and the community. In addition to the preventive health and personal hygiene

Micro-finance and SHGs

Committed to the socio - economic empowerment of women, Self Help Groups serve to give women a sense of ownership in their communities. Normally, composed of 10-15 volunteer women, they are provided with a safe place to meet and work together. Within the scope of micro credit development, members pool their money in a community account to obtain micro credit



GRAVIS under project CDMT, has facilitated the formation of SHGs in 12 villages. Till date in Thar, GRAVIS has helped over 1,000 SHGs in their formation and growth. See the following table.:

Activity	2010-2011	Total to date
Number of SHGs formed	473	1,071
Number of SHG members	5,153	11,797
Sum of loans taken (INR)	1,575,000	16,751,565
Number of awareness camps	41	347
Rallies attended	8	150
Number of women attending rallies	856	18,185
Exposure visits	7	88
Number of women attending exposure visits	251	3,155
Number of skill enhancement trainings held	26	228
Income generating units	6	119

SHG Basic Training : The initial interaction with the members of these Self Help Group pointed towards the need for capacity building of the members in the conducting and coordinating the activities of the group. Hence, after the formation of the Self Help Groups training was imparted to them on various aspects of management, coordination, leadership and record keeping. Maintenance of accounts, internal loaning systems, regular savings and meetings, forward and backward linkage through the government schemes and other such issues were widely discussed in the trainings of the SHGs. During the training resource materials like pass books and meetings register were used and distributed. These groups were also oriented with the guidelines of the NABARD pertaining to the creation and operations of the Self Help Groups.

The continuation, success and sustainability of the group are highly contingent on the group's ability to cope with the development within and the enterprise that it intends to venture into. The training was thus critical to the development and sustainability of these SHGs.

Other than this, health aspects were also given due importance especially because of the poor health status of women in the areas. The members of the SHGs were also oriented about the availability government schemes, and how these can be accessed by them.

Vocational Training : With the creation of new groups it was pertinent to provide them training to undertake some vocations depending upon their socio-economic conditions, cultural factors as well as other factors such as availability of market. Considering such facts GRAVIS conducted vocational training for the SHGs on animal husbandry, setting up of grocery shop & cattle rearing. The training included skills in soaps and detergents making, sewing, embroidery, species, pickles, *papad*, *mangori* and other hand made



SHGs Vocational Training



products. Products are then sold locally to neighbors, as well as in SHG co-operative shops.

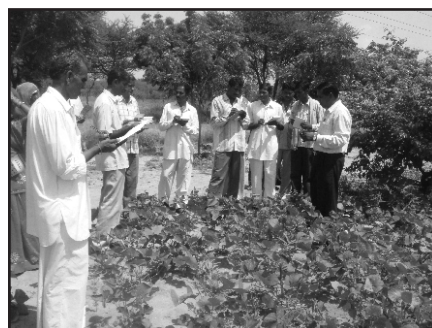
During training on cattle rearing the veterinary doctor oriented the group regarding the selection of appropriate breeds and ways through which the quantum of profit can be maximized. Health and nutrition aspects of the cattle were also discussed with the group so as to enhance the produce to the possible extent. Similarly, the group was also familiarized with the process involved in starting a grocery shop and how to expand market for the same.

Revolving fund: Such funds are provided to SHGs so that the loan could be facilitated for the members. These loans are then repaid to the central SHGs capital fund on a no-interest basis. As the money is received back from one SHG, it is further provided to other SHG for loaning and supporting its members. With a view to reach the most marginalised, in the selection of recipients, priority is given to widows and women in dire economic situations.

Kriya : In 2005-06 GRAVIS launched a new venture called 'Kriya', to bring all the income generating activities of SHG women under one brand. It is an initiative to develop the leadership, income generation and project implementation capacities of the members of SHGs through vocational training as well as training on leadership and project management. The venture also helps women to establish micro-businesses and enable them to have an access to the marketing world. The SHG members from many villages have also been linked to this venture.

Cooperative shops : Co-operative shops have been established to cater the needs of isolated communities. Interestingly, all of the co-operative shops are owned, operated and managed by SHG members. Once the shops are established, and begin to make a steady profit, it is only then that nominal monthly repayment is made on the principal. Furthermore, no interest is paid on the loan. This venture has been very popular among the SHG members and many of them have got benefitted from it and have remained financially secured even at the times of droughts when the family income has witnessed a plunge.

Capital Assistance to SHGs : In addition to the general and vocational trainings that were provided to the groups, GRAVIS also provided limited support in terms of capital assistance for the groups to start vocations such as cattle rearing, starting grocery shops and flour mills. Such capital assistance has been exemplified for the groups for themselves to be able to initiate such vocations incrementally for all the members of the group. This assistance is backed by trainings on starting the enterprise and managing funds. Many women have now come out of the debt trap and are running their businesses.



Farmers exposure visit



Farmers on an educational visit



GRAVIS has been instrumental in mobilising the rural community to form Self Help Groups of the women and has been successful in creating 67 such groups in the geographical area of the Thar Desert over the past one year, constituting about 760 members, as shown in the table above. Although such groups have been formed primarily with the participation of BPL households, in few areas given the poor socio-economic condition of the APL families, they have also been supported. The strength of these groups ranges from 10 to 14 depending on the requirement. From their regular earnings, these groups have been able to keep some amount separately as their savings and this amount ranges from Rs. 500 to 2800 with an average saving of Rs. 1000 across these groups.

Micro-finance - showing the way to financial security

Ramdev is the name of the self help group of women in Netasar village, created in September 2010. The group has 12 members who save Rs. 100 on monthly basis. The group members share responsibility of collecting the monthly savings and have evolved a process of internal loaning which is facilitated on the minimal interest of 2%. This amount is used by the members to meet the transport expenses incurred by them while visiting bank.

Women in the group have initiated the vocations that are most suited to their socio-economic situation. Three women have bought cows from the loan and two others have started grocery shop and floor mill. Owners of cows have not only been able to meet their household need of dairy products but have also been able to sell the produce in the neighbourhood where there is demand for such products. The setting up of a floor mill has also proved to be a viable venture, given that there is no other floor mill in the village and almost all the households utilise the services available with this SHG member.

In all these cases, micro-finance has helped the members of these SHGs and their families to overcome the financial vulnerabilities by substantiating their family incomes and thereby ensuring financial security even at the time of scarcity of agricultural produce during prolonged drought.

With technical support and training from GRAVIS, almost all the groups have been able to open their accounts in the banks and not only this, most of these groups have initiated internal loaning also. The advent of internal loaning in these groups has encouraged the group members to start their own business ventures in their preferred vocations.

As indicated in the table few of the groups have also been able to receive loans from Banks and have consolidated themselves within the process of micro financing and are moving steadily towards self reliance. Although the progress is incremental, its self sustaining and much promising especially considering the overall financial status of the rural community, more importantly, of women.

**Building community resilience to drought**

Sumer Singh, Chairperson of the VDC in Bhurjgarh has all praise forth micro-finance initiatives in the village. He informs, Chamunda, tejsingh Bhomiyaji and Naagnechi groups were established with support from GRAVIS with the membership of 10, 11 and 14 women, respectively, all belonging to BPL families. Despite their difficult financial circumstances the groups have been extremely vibrant and are able to do savings ranging from 1500 to 2800 per month. With the vocational training and the initial support provided by GRAVIS, members of these three groups have been able to start alternate vocations such as animal husbandry.

This has resulted in steady and sustainable increase in the household incomes and has also augmented collective bargaining power of women. SHG members are also holding periodic interactions with the *Gram Panchayat* and have also been successful in persuading the *Panchayat* members to take measures for constructing structures such as *khadin* and *naadis* in the village to make it drought resistant.

SHG members of the Bhurjgarh meet every 15 days and discuss matters such as progress achieved in the alternative vocations, requirement of expansion of support to members, and encouragement to initiatives such as construction of *taankas* and establishment of horticulture units in the village. These groups have not only been able to generate resources from their own resources but have also been competent and proficient in acquiring complementary funds from other sources such as banks or NGOs. It can definitely be said that the evolution and permeation of micro-finance in the village is leading the village towards self sufficient and drought resilient.

Also, with the trainings on financial and administrative matters, women in these groups have learned new skills such as managing their household finances. Such financial security has contributed immensely towards making them drought resistant. During drought if they cannot do regular agriculture and related activities their savings through the SHGs come in handy for them and their families to sustain through the financial crisis emerging out of the drought or drought-like situations.



Part 4 : Further recommendations

Preliminary findings and experience reflects that above mentioned community led (or community based) strategies to mitigate drought have definitely been able to make a difference in terms of building drought resilience communities through the involvement of the community. However, this is also true that such interventions, especially micro-finance requires great deal of technical support from agencies/institutions for them to be able to adequately effective and sustainable. Otherwise, the danger of throwing greater responsibility on community people, who are already affected economically & socially, is always there.

Micro-finance has the potential to bring substantial benefits to the primarily agriculturalist and pastoral community of rural Thar, and could play an important role in drought risk management as well as in community development more generally. Savings and micro-credit can smooth consumption seasonally and between years. Credit can help the people to find options for investments even after drought. Micro-insurance can protect the community from such losses in the first place. Credit can allow productive farming enterprises to expand, diversify household income and reduce vulnerability to future shocks. An underrated benefit of micro-finance is the substantial social capital created by the experience of working with others in an arena where trust is essential.

However, the micro-finance programmes have done little so far for the development of the desert community in the Thar. There are difficulties in targeting micro-finance to rural community in the Thar. The rural community is generally inexperienced with regard to the micro-finance systems and also there is a degree of scepticism among the poor rural women to deposit their hard earned money in the group account. Also they understand very little about the systems and processes involved in the micro-finance.

It becomes even more challenging in when the prolonged droughts compels people to migrate from one place to another in search of a living. Sustaining the micro-finance initiatives in such a situation become near impossible.

There are a number of ways through which the performance of the community led drought mitigation initiatives as well as micro-finance can be leveraged.

Strategic Planning for use of Micro-finance for Drought Mitigation

Micro-finance has a potentially important role to play in a drought risk management at the community level. Its application in the Thar should take into accounts many aspects. Key components of such a strategy that should be kept in mind while designing and implementing such initiatives for the rural communities are: close collaboration with the rural communities so that the needs and the constraints could be accounted for in the plans and programmes, the objective of ensuring sustainability of the initiatives towards self reliance of the community even during the times of prolonged droughts, however support would be required in the initial support by way of financial help in the shape of seed money, as well as the capacity building on various aspects.



Training of the members of the Self Help Groups or any other beneficiaries of micro-finance is required on fundamental things such as record keeping, conducting meetings, management, leadership etc. As the micro financing scales up training requirement in other areas such as fiscal aspects of money management and financial planning services, models of internal and external loaning and recovery, life cycle financial products such as life and health insurance, and accident insurance, will also get increased.

Facilitation and Liaison

A part from the training and capacity building which should be an on-going process, organisation such as GRAVIS should also play the role of a channel between the community and the governments so as to transit the information about facilities such as insurance, and other such schemes available for the drought stricken community. Additionally, GRAVIS can also provide a comprehensive needs assessment of the

Customised and convenient services

To make micro-finance sustainable for the groups it is important that it should offer flexible customer friendly services preferred by low-income group. It should also provide opportunities for streamlining operations and reducing costs by adopting standardized simple lending process, decentralized loan approval, inexpensive offices, and use staff from local communities), (3) operate in market basis charging market interest rates and fees, and (4) strive to recover the costs of the loan.

Relevance and practicality

It is important to develop a micro-finance strategy that is customised to cater to the needs of this community. In the drought affected areas of Thar needs of the community to access water resources and ensure food security are of paramount interest. Any initiative that does take such factors into cognizance is destined to fail. Apart from this, there is a great need to strengthen the civil society government partnership as this may make it easier for those who do have the capacity to tackle bigger issues, such as deforestation, to content them with supporting small-scale drought management initiatives.

Human capital is a critical resource for the managing any community initiative. It is not only important but pre requisite to support and build the capacities of people involved in the implementation as well as receivers of the services to get clued to the systems, processes and various other aspects of the micro-finance initiatives. Especially in cases of natural disasters, such as drought, the providers as well as those forming the groups should be oriented to various drought proofing strategies.

Linkages with other actors

The success of a micro-finance strategy depends on the ability of the service provider institution to find the right balance between achieving financial sustainability, without which any gains will be short-lived, and targeting benefits to the community at affordable rates. If micro-finance institutions (MFIs) providing financial products to the poor rural community cannot earn revenues that exceed costs, without long-term subsidies (either from government or donors),



they will not provide a sustainable solution to the problems faced by the drought vulnerable community. Equally, if micro-finance does not reach a significant number of people, including poor households and women, its development potential will be limited.

Multisectoral synergy

While using micro-finance for drought mitigation the agencies and the groups are bound to grapple with a range of issues including the sources for finance, capacity concerns of the community and other support required for the groups to take off. Unless such initiatives are synergised with the programmes, schemes and strategies of other agencies that are active in various areas, including rural development, water and food security, poverty alleviation, agriculture development, scientific innovations and women empowerment. Consolidation of past initiatives and best practices is also critical for the success of the endeavours made will also be critical to ensure such synergy.

Planning and preparedness

For a primarily and a frequently calamity prone community such as the rural community in the Thar, it is extremely important to evolve a preparedness mechanism with the community to be able to cope with it. Micro-finance with its focus on financial security must work towards improving the financial condition of the community and ensuring self-reliance. Additionally, since micro-finance through the creation of the groups at the community level provides a platform to deliberate and discuss community level issues, such groups should also be utilized for other community actions to prepare against drought, for example, creation of community seed banks, etc.

Power dynamics

Traditionally, the rural communities inherit the caste and class structure from their ancestors and such power dynamics affect all the facets of their lives. It has been witnessed that even in the community based organization and their functioning is also thwarted by such dynamics and more often not traditionally powerful families, clans and individuals also enjoys the position of power and even reap most of the benefits emerging out of the collective activities of the groups. At times, the submissiveness of the poor resources less people and the respect for the mighty also adds to the problems. Thus, there is a need to iron out such foreseen discrepancies from the system and enable an egalitarian culture in such groups, which will go a long way in ensuring sustainability and steadiness on such efforts.

Monitoring

The newly created micro-finance and other community groups in the region are still in their infancy and not fully equipped with the skills and strategies and even the possibilities and potential for community interventions for drought preparedness and mitigation. The agency that facilitates the micro-finance initiative in these areas should also monitor and support the activities and day to functioning of the groups at least till they get fully empowered to take on such roles independently.



Cognizance of various other aspects

The functioning of the micro-finance groups require socio-economic and financial environment which is conducive to their growth and thriving. Given that all the conditions, such as the continuity of the savings and investment and the requisite technical expertise may not be readily available among the community, and the fact that the community has been most vulnerable to prolonged droughts, micro-finance initiatives should also take them into account. For example: alternative vocations should be chosen keeping the climatic conditions and available natural resources, availability of market and time etc. in the mind.

Other services that can be provided

Micro-finance has undergone plenty of change in the last decade; many trends have emerged and the service scope of many financial services has changed too. As innovations gain momentum, micro financing has to keep up with these developments and keep offering simplified services and products such as loans, insurance, etc.

Savings

The income sources of the rural community in Thar are very sporadic and income streams are highly contingent on the seasonal events such as quantum of rains. Cash savings would allow the community to smooth these uneven income and consumption streams. However, the ability and extent of such savings would be highly contingent on various factors such as - security of savings and confidence and trust in the fund holder, liquidity of savings: can the depositor have quick access?, transaction costs: the cost of making a deposit and withdrawing money, real interest rate, demand for savings products, and purpose for which cash is saved.

It would be wise to develop savings mechanisms for the rural poor before further expanding micro-credit schemes, and in future ensure that savings mobilisation and micro-credit go hand in hand. With the availability of suitable facilities poor households will definitely keep on saving that will also help micro-finance grow.

Related to this is the fact that rural community in Thar have little experience of banking institutions and trust quotient as regards the security of their savings may also be low. Also most of the time access may also be difficult and for the same reason, the cost of making a deposit or a withdrawal may be very high. If attractive savings packages can be provided to the communities it will work positively for micro-finance initiatives and ensure financial stability for them even in the lean period. Mobilising savings also gives micro-finance a broader and more secure base, and permits them to expand their outreach.

Micro-credit

Although SHGs in the Thar have limited funds and savings, with the financial support received in the form of micro-credit, the women in the self help groups can initiate their own business enterprise and ensure financial security for the entire household even in the time of extreme and prolonged drought conditions.

Similar micro credits can also be provided to the farmers in order to ensure availability of water



throughout the year by construction of water saving structures such as *khadin* in their farms, or even for purchase of good quality seeds, maintenance of seed banks, etc. By this way the material support provided by the supporting organisations can be expanded to a large number of farmers making them resilient and prepared for any drought like situation as well.

Insurance

Occurrence of drought exposes the families and the community to several financial risks and problems including health issues. These risks are most of the time covariant in the sense that they affect all households in a particular area at the same time and are much more damaging than individual risks. Insurance for the poor household aiming at their financial security contribute towards making the community drought resilient.

Disaster funds have been used in some countries to cope with catastrophic risks such as hurricanes or earthquakes - that cannot be absorbed by conventional private insurance. In the case of rural community of Thar, SHGs can create pool either by way of contributions or by earning interests on loans or savings to create such funds which can be utilised at the time of drought to shield the poor agriculturalists against the scarcity of funds to meet even the basic needs, or provision of services for health, or support services for agricultural such as provision of seeds, etc. Such needs can be defined by the groups in advance and be included in the policy governing these SHGs.

Insurance cover

In a longer term, NGOs could be a channel to the rural community for information about insurance and pioneer pilot schemes by taking out insurance on behalf of their members, introducing insurance to households which may be sceptical at first. For example, GRAVIS can facilitate detailed information about the insurance options available and keep the community better informed. There may be economies of scale in offering insurance through NGOs, which would reduce the cost.

Community investment funds

Community investment funds are used in rural communities for risk mitigation by supporting income generation or public works projects, stimulating school enrolment and health centre use, and strengthening community social capital. Community investment funds can also support a move towards increased fiscal devolution, with progressively larger government matching grants depending on the community's own contribution. Community investment funds could be used to underwrite such activities as the construction or repair of *taankas*, *naadis*, *khadins* as well as the watershed management works. Community investment funds could be managed by *gram panchayat* or VDCs or even the Self Help Groups.

Leasing/hire purchase

Through the micro financing interventions the farmers of the Thar region can also be supported in terms of hiring services such as the equipment used for the agriculture. Such an arrangement could be made available to the farmers based on the efficiency and outreach of such interventions as well as the credit history of the farmers. Such experiments have actually been



very successful in few other parts of the world and have generated interest in the disaster prone communities.

Micro-finance is a strategy to reduce financial risks and vulnerabilities, however, its potential to ensure financial security especially in the time of natural disasters such as droughts have largely remained under explored. In the Thar Desert where the primary occupation of the people is agricultural and where drought is a recurrent phenomenon, the role of micro-finance needs to be contextualised so that is able to address the specific needs of people. For example, the vocations that are chosen should not only have the virtue of financial viability, both in terms of establishment and market, but should also be socially and culturally relevant. In the process various financial services, such as insurance, can be offered and social cohesion can be built to cope with disasters. In addition to the financial and technical support and trainings that could be extended, the platform of SHGs can also be effectively used to empower women and ensure greater role for them in rural political economy. This can consequently lead to a more egalitarian and empowered society.

**ABBREVIATIONS**

ADB	Asian Development Bank
ADPC	Asian Disaster Preparedness Center
AIC	Agriculture Insurance Company of India Limited
APL	Above Poverty Line
BPL	Below Poverty Line
CAZRI	Central Arid Zone Research Institute
CCIS	Comprehensive Crop Insurance Scheme
FWP	Food for Work Programme
GRAVIS	GraminVikasVigyanSamiti
IWMP	Integrated Watershed Management Programme
KVK	KrishiVigyan Kendra
KZE	KatholischeZentralstelle fur Entwicklungshilfe.V.
MFI	Micro-Finance Institution
NAIS	National Agricultural Insurance Scheme
NDC	National Development Council
NDMA	National Disaster Management Authority
NFSM	National Food Security Mission
NGO	Non Governmental Organisation
NHM	National Horticulture Mission
NRDWP	National Rural Drinking Water Programme
NWDP	National Watershed Development Programme
PGMY	Pradhan Mantri Gamodaya Yojana
RKBY	Rashtriya Krishi Bima Yojana
RKVY	Rashtriya Krishi Vikas Yojana
SGRY	Swarna-Jyanthi Grameen Rozgar Yojana
SGSY	Swarna-Jyanthi Grameen Swarozgar Yojana
SHG	Self Help Group
UN	United Nations
VDC	Village Development Committee



REFERENCES

- B. C. Nagaraja, R. K. Somashekar and Kavitha. A., Impact of Drought on Agriculture: Challenges facing poor farmers of Karnataka, south India, Dept. of Environmental Sciences, Bangalore University, 2009
- Conning, Jonathan & Morduch, Jonathan, Micro-finance and Social Investment, April 8, 2011
- D Rajasekhar, Micro-finance and Disaster Risk Management Experiences and Lessons Learned, Enrique Pantoja, July 2002
- Development Goals (MDGs) and the Implementation of the Programme of Action 2015 (Poverty Reduction): GTZ experience, 2005
- Gh. H. Zamani, Marjan J. Gorgievski-Duijvesteijn, Kiumars Zarafshani, Coping with Drought: Towards a Multilevel Understanding Based on Conservation of Resources Theory, *Human Ecology*, Vol. 34, No. 5 (Oct., 2006).
- Hans Dieter Seibel, The Role of Micro-finance in Rural Micro enterprise Development, Foundation for sustainable agriculture, University of Cologne
- http://water.worldbank.org/water/sites/worldbank.org.water/files/GWMATE_BNo3_Management%20strategies2003.pdf
- Iyer, R. Ramaswamy, Large Dams: The Right Perspective, *Economic and Political Weekly*, Vol. 24, No. 39, Sep. 30, 1989.
- John Twigg and Diane Steiner, Main streaming Disaster Mitigation: Challenges to Organisational Learning in NGOs, *Development in Practice*, Vol. 12, No. 3/4 (Aug., 2002), pp. 473-479
- Lorna P. Victoria, Community Based Approaches to Disaster Mitigation, Center for Disaster Preparedness, published by Asian Disaster Preparedness Center (ADPC), 2003
- Managing the Droughts? Perception of Resource Management in the Face of the Drought Hazard in Australia Author(s): R. L. Heath cote Source: *Vegetatio*, Vol. 91, No. 1/2, *Vegetation and Climate Interactions in Semi-arid Regions*(Jan. 31, 1991)
- Manual for Drought Management, November 2009, Ministry of Agriculture, Government of India
- Marshall, T. J. & J. W. Holmes, *Soil Physics*, 2nd ed. Cambridge University Press, New York, 1988
- Milind Bokil, Drought in Rajasthan: In Search of a Perspective, *Economic and Political Weekly*, Vol. 35, No. 48 (Nov. 25 - Dec. 1, 2000).
- Misra, Alok, Micro-Finance in India and Millennium Development Goals : Maximising Impact on Poverty - Discussion paper for Workshop on World Bank, Singapore, 18th September 2006
- National Disaster Management Guidelines: Management of Drought. A publication of the



National Disaster Management Authority, Government of India. ISBN 978-93-80440-08-8, September 2010, New Delhi.

Pomee, M.S., Zaheer-ul-Ikram, M.A. Khan and I. Ali, Drought Mitigation Measures: An Overview Under Pakistan's Perspective(www.pcrwr.gov.pk)

Quiring, Steven M., Developing Objective Operational Definitions for Monitoring Drought. J. Appl. Meteor. Climatol., 48, 2009

Rainwater Harvesting: A Lifeline For Human Well-Being: United Nations Environment Programme 2009,

http://www.unep.org/Themes/Freshwater/PDF/Rainwater_Harvesting_090310b.pdf)

What is Drought: Drought Indices, National Drought Mitigation Center (NDMC), 2005.



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Gramin Vikas Vigyan Samiti (GRAVIS) or Center of People's Science for Rural Development is a non-governmental, voluntary organization that takes a Gandhian approach to rural development by working with the poor of the Thar Desert to enable them to help themselves. Since its inception in 1983, GRAVIS has worked with over 55,000 desert families across over 1,000 villages in Rajasthan reaching a population of over 1 million, and has established over 2,500 Community Based Organizations (CBOs). Through its dedicated field work, as well as its research and publications, GRAVIS has come to occupy a leading position amongst the voluntary organizations in the region.