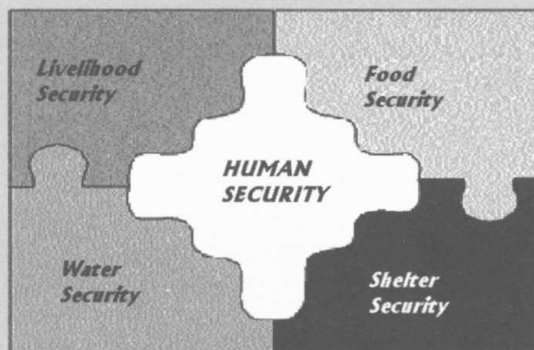


Cyclone, 2000 drought, Bhuj earthquake in 2001 and the communal riots that rocked Ahmedabad in 2002. It has given livelihood support to more than 10,000 victims of the earthquake in the three districts of Kutch, Patan and Surendranagar in Gujarat.

LRF in partnership with international aid agencies such as American Jewish World Service (AJWS), Action Aid and European Union (EU) has reached out to the disaster victims and worked for providing them long-term needs. In Bhuj, LRF focused its attention in slums that were ignored even a year after the earthquake and in spite of abundance of relief material.

DMI accepts the wisdom that disasters are no longer a temporary dip in the development graph but a threat to the process itself. For mitigating disasters, DMI has four critical human security programmes: livelihood security; food security; shelter security, and water security. DMI's conceptual model of human security is shown in the adjoining figure. Livelihood security is consciously placed in a prominent position, as it is linked to food, shelter and water security. This model has come out of DMI's ongoing experience with regenerating livelihoods of the urban poor victims of floods, droughts, earthquakes and so on. Beneficiaries of LRF and their families are consuming more and nutritious food. They are ready and capable of investing in disaster-proofing their shelters. They can buy enough water for their daily needs. In short, they are surer of a secure future. Livelihood security, DMI has seen, is the hub around which human security of the urban poor revolves.



DMI's human security model

### Sample

LRF's beneficiary group in Bhuj consists of a diverse group of livelihoods, which can be classified into four different groups: small businessmen, small-scale vendors, laborers and home-based workers. Several different professions can be categorized under these sections.<sup>1</sup>

The initial list of issues was prioritized in consultation with a selected group of LRF beneficiaries.<sup>2</sup> After, the entire questionnaire was designed, the

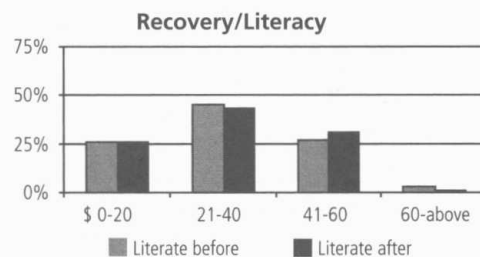
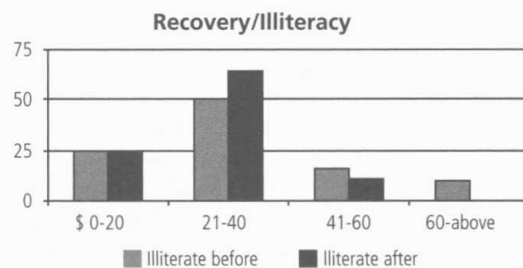
slum-dwellers were again consulted and their inputs incorporated. A team of slum-dwellers associated with the Bhuj Reconstruction Project (BRP) conducted the actual survey with inputs from two international students associated with DMI through its internship programme. 246 livelihood beneficiaries were interviewed. A set of case studies provided a qualitative perspective to the findings. The data is fresh and the perspective provided is from the community and inside out. The main findings and analyses have been separated and distilled into this paper.

### Livelihood Risk Reduction: The links<sup>3</sup>

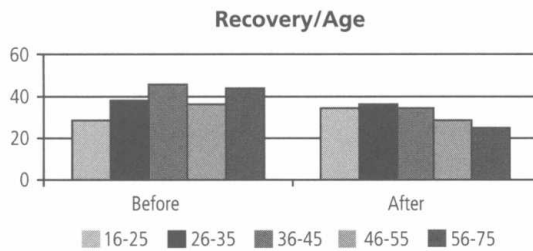
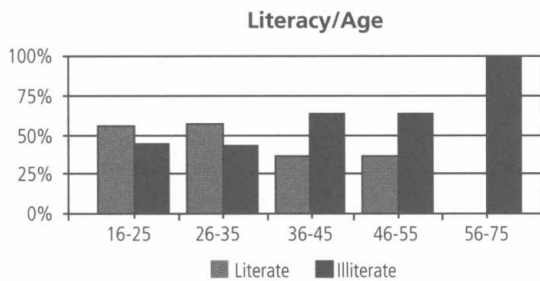
How can livelihoods of urban poor that fuel their development poor be protected? The scope and the range of areas covered by the research study included the study of different influences and combinations of a wide range factors and impacts that jointly affects the livelihood security of the disaster-prone urban slums. These include a complete analysis of age, gender, livelihood types on one hand and their individual status with respect to literacy, economic recovery, savings capacity and vulnerability on the other. As explanation of each an every finding would be beyond the scope of this paper the most significant among them is summarized below.

#### Literacy reduces risks

The respondents were divided into five age groups as 16-25, 26-35, 36-45, 46-55 and 56-75. The educational level of the slum dwellers is quite low. Less than 35% of the sample had gained some level of education. Out of these, barely 26% had completed the primary school, 8% the secondary school, less when 2% entered the high secondary school.



There is a marked difference in recovery patterns of the literate and illiterate among the slum dwellers. In the graph 'income /illiteracy' it can be seen that there is an increase in the number of illiterate people in the \$21 to \$40 category and a decrease in illiterates in higher income categories. Consequently, the average income of the illiterates has shrunk from \$39 per month before the disaster to \$30 after. On the other hand, there is insignificant difference in average income of the literate. The average income is almost same (\$35). As seen in the graph there is minimum impact of the earthquake on their income.



Another finding that supports the link between literacy and livelihood risk reduction is the analysis of the recovery across age groups. The younger groups also had majority of the literates from the sample. The recovery of the younger two groups was also better than the other three groups. It can be argued that the income of the youngest age group would always increase irrespective of the disaster. Therefore in comparing the above graphs the focus should be on 26-35 and the 36-45 age groups. The withstanding capacity of younger group, which is more literate, is more than the older category.

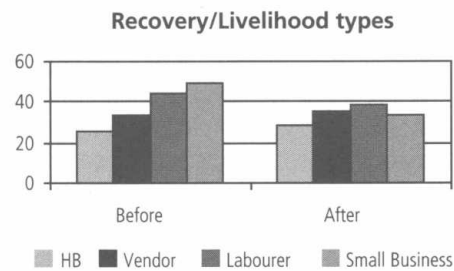
This is evidence of the significant role that literacy plays in recovery after disasters and is a crucial link between poverty and disaster risk reduction. A majority of them does not pursue education due to lack of resources and the need to earn to live. What is more striking is that even in the poorest category of the society, literacy (not only in school going

terms) helps in making the right decisions, understanding markets, awareness of rights, etc. The literate, after a disaster, can better link up with the changed and emerging market and align the livelihood to benefit from it. The illiterate are not able to do so.

Hence literacy of an urban area is an important indicator for assessing the capacity of the region to withstand and recover from disasters.

### Credit is crucial

Livelihoods that require less capital have recovered better compared to others. There is an increase in average income of the home-based category and small vendors compared to small businesses. In the category of small businesses, more than 77% of the respondents were men. The recovery here is crucially dependent on availability of economic capital. More than 87% of them felt that their daily needs were not covered. The adverse impacts of the relocation from the Walled City<sup>1</sup> to the outlying areas have been most felt by the small businesses. Around 60% of them had to relocate, losing their customers.



There is a reduction in income of laborers in spite of the massive post earthquake reconstruction work in Bhuj. This can be attributed to the impact of large number of migrant workers that have entered Bhuj from the poorer regions of the country like Bihar, Uttar Pradesh and Rajasthan. These migrant are preferred by contractors undertaking the reconstruction as they can be expected to work for as low as one third of the daily wage that a laborer from Bhuj would demand.

A related finding here is the average income of women to have increased post disaster. The average income of women had increased from \$26 before the earthquake \$27 after, while the corresponding incomes of men had reduced from \$43 to \$37. The number of women who earned no income is less now than before and this section has contributed to

the increase in average income of women. Women constituted a majority (73.2%) of home-based workers. These women produce food items at home, make ready-made garments, do embroidery and manage in-house stores

Surprisingly twenty percent more women now have work inside their community as compared to before the earthquake. Coupling this finding with an increase in average income there could be a conclusion that livelihood relief targeted at women have given dividends.<sup>4</sup>

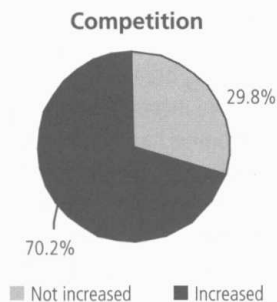
This is the second link between poverty and risk reduction. To restart their earning mechanisms the poorer sections need capital, credit and insurance in micro quantities. They have limited capacities to save and hence methods have to be devised to address this gap.

Availability and access to low interest credit or insurance and presence of institutions and government mechanisms in urban areas is another indicator of the dimensions of the risks that poorer sections face in event of a disaster.

### *Intervene to empower*

The last section of the questionnaire dealt with the market linkages at the micro level and the impact it has on the four major livelihood types in the slums. A vast majority felt that the competition in the markets has increased. The respondents stated two reasons for this increase.

Relocation again seems to be the main culprit in this aspect. Of the respondents, 80% of the respondents said that in their profession regulars and passers by are their main customers. Since they are now staying further away from the Walled City, (the central area in the city that has the maximum market activity, and was also badly destroyed) their customer base has shrunk. The average customers per day, when calculated from the responses, have shrunk from 15 per day to around 10 per day. The second and more significant is their claim that indiscriminate provision



of similar livelihood relief materials, like sewing machines, in a limited area has tampered with their markets. Thus, humanitarian relief and reconstruction, when without coordination, and market-sterile, dampens the local markets of the poor.

Availability of reliable information of the region with regard to its livelihood pattern and the market linkages is an indicator of risk management capacity of the area.

### *Existing vulnerability of the poor is compounded by disasters*

Among the respondents, more than 80% of the respondents felt that they were not able to invest in any saving mechanism. This number has increased to 85% with the laborers showing no capacity to save. Among genders, women have also shown willingness more than men to save and improve their condition.

The average saving amount also has reduced from \$11.5 to \$4.5 per month. Not surprisingly, more than 87% of all the respondents said that their extra costs were not covered.

One of the most important questions asked during the survey was: 'Will your family would survive if he/she fell ill?' An overwhelming number, 63%, replied in negative.

For most of the urban poor, security is never possible as their economic and social condition renders them defenseless from the onslaught of natural disasters and their sustained after effects. Provision of safety nets by government and humanitarian agencies and adoption of saving habits by the residents of slums is an indicator of disaster preparedness of and risk minimization of the region.

