



UNITED NATIONS DEVELOPMENT PROGRAMME

# From Relief to Recovery

## The GUJARAT Experience



# From Relief to Recovery: The Gujarat Experience

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## Foreword

Disasters offer unique, if transient, opportunities for change. Relief efforts in a disaster scenario can serve not only to reverse losses but to spearhead long-term sustainable recovery. As the United Nations agency mandated since 1998 with responsibility for disaster management, prevention and vulnerability reduction, the United Nations Development Programme (UNDP) viewed its intervention in Gujarat, following the devastating earthquake of January 2001, as an entry point for long-term sustainable development. From the standpoint of UNDP as the development arm of the United Nations, transition to recovery is essentially a development activity, which grasps the opportunities offered by crisis to make the transition from unsustainable to sustainable development.

This report presents a practical application of the UNDP concept of transition recovery designed over the last three years. The concept is premised on the belief that whatever the type and scale of disaster, the period of transition from relief to recovery is the most critical. During the relief phase, huge volumes of resources pour in from a range of entities such as government, the private sector, international aid agencies and civil society organizations (CSOs), each with diverse agendas and interests. As the relief phase draws to a close, public and donor interest wanes, and government and other agencies embark on a long process of recovery. In the period when relief is done but recovery is yet to begin, vulnerable groups are especially at risk.

The period of transition thus not only determines whether people attain recovery or rebuild risk; it also determines whether the process of recovery leads to sustainable development or hastens a downward spiral of development and livelihoods. The challenge is to cross this transition while protecting the interests of the weakest groups and launching sustainable recovery.

Once large-scale recovery projects begin, funded by government and multilateral development banks, small or local CSOs that may have perfected innovative approaches in the relief phase are likely to be rendered irrelevant, given their limited reach and meagre resources. A successful transition from relief to sustainable recovery therefore first calls for a realignment of roles of CSOs according to their core competencies, and not merely in tune with donor priorities.

A second key task for successful transition is the definition of indicators that signal the end of the transition phase and mark the exit points for external agencies. The first such indicators are the restoration of essential services, such as health, schools and water supply. Finally, local government bodies and local CSOs must have the requisite capacity to implement perspective plans developed and accepted by all stakeholders.

When successfully implemented, the concept of transition recovery will have built on local and national capacities, enabled decentralized planning and programming, ensured risk management and reduction, provided a demonstration effect, and resulted in improved coordination. The Gujarat programme has so far met all these indicators although considerable work remains to be done in consolidating these gains.

Most important, the programme presents compelling evidence of the relevance and effectiveness of the transition-recovery approach in addressing post-disaster situations and its potential to enable a rapid recovery of livelihoods with relatively small financial inputs. The challenge for UNDP is to raise awareness of the transition-recovery strategy within the organization and among governments and donor agencies. It is crucial to raise the capacity of country offices to address the special needs of post-crisis recovery processes. The UNDP intervention in earthquake-hit Gujarat marks the beginning of an important development whose momentum needs to be sustained.



**Omar Bakhet**  
Director  
Emergency Response Division

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# Introduction

On 26 January 2001, a giant earthquake jolted the western Indian State of Gujarat. Within seconds, it turned the traditional holiday festivities that mark the nation's Republic Day into macabre scenes of death and destruction. When the tremors stopped, at least 20,000 people were dead and 300,000 injured and more than a million homes destroyed.

The earthquake measured a cataclysmic 6.9-7.9 on the Richter scale. It was the worst recorded in India since the 1737 Calcutta earthquake, in which 300,000 people were killed. Even the more recent 1993 earthquake in Latur, in neighbouring Maharashtra, paled in comparison, being 30 times smaller at 6.4 and claiming about 9000 lives.

The killer quake rocked 21 out of 25 districts in the state, among them Ahmedabad, Patan, Jamnagar, Rajkot and Surendranagar, but reserved its worst havoc for the sprawling desert district of Kachch, the largest in the state. Kachch bore 90 per cent of all deaths and about 85 per cent of all asset losses. Those in agriculture, livestock-rearing and salt production – the mainstays of the economy – suffered tremendous losses, as did the crafts sector, for which Kachch is renowned. Assessment of damage put the total direct losses statewide at \$3.5 billion. The cost of reconstruction is estimated at \$2.5 billion.

Gujarat, a prosperous, industrialized state with a population of 50 million, is no stranger to natural disasters. It experiences droughts, cyclones and flash floods with depressing regularity. An earthquake strikes every 30 years and droughts parch the land every three. The disaster clock has brought particular distress to the environmentally fragile district of Kachch. In the last ten years, it has suffered six droughts, two cyclones, one earthquake and one flood. Seventy-three per cent of Gujarat's arid area falls in Kachch district, and more than half its terrain is covered by saline mudflats (the Great and Little Ranns). Yet the State has lacked a comprehensive disaster-management strategy, responding to each crisis with discrete relief efforts. In Kachch, for example, the Government has spent \$128 million in drought relief over the last decade. Short-term unsustainable work under a relief framework has left people more vulnerable to disasters and more dependent on the Government.

The January earthquake marked a turning point. The magnitude and scale of the disaster were such as to prompt the usual immediate responses: massive relief operations on the part of the Government and over-

whelming quantities of aid from the private sector and the international community, the affluent Gujarati diaspora in particular. But it also galvanized state and non-state actors – civil society organizations (CSOs) and United Nations agencies included – to formulate strategies and approaches together that would move them from short-term relief to long-term rehabilitation, securing lives and livelihoods to weather future disasters.

UNDP played a key role in facilitating this transition from relief to recovery. It chose as its critical areas overall coordination with special focus on shelter, livelihoods, information coordination and local governance structures. The focus of much development activity converged on Kachch, the worst-hit district, although UNDP was also active in the Surendranagar and Patan districts. In Kachch, UNDP forged a strategic, multilayered partnership with Kutch Nav Nirman Abhiyan, a district-wide civil society network, to spearhead innovative approaches aimed at promoting community self-reliance, safeguarding against future risk, strengthening institutional capacity and empowering the most vulnerable groups.

*The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.*



Gandhinagar is the capital of Gujarat.

These core principles of transition to recovery pioneered in UNDP-supported projects have had a heartening statewide impact in the post-quake programmes of other United Nations agencies and the Government of Gujarat. A key success of the UNDP intervention has thus been in making the innovative strategy the mass approach – a feat it accomplished despite being a relatively small player, with a budget dwarfed by those of several other multilateral institutions, the Government of Gujarat and even large, local CSO networks.

**A**nchored by the Emergency Response Division (ERD) at its New York headquarters and the United Nations Disaster Management Team in New Delhi, UNDP set up a field office in the Kachch district capital, Bhuj, the epicentre of the earthquake. The Gujarat programme was managed by a dynamic, energetic staff of 47 composed of engineers, architects, geologists, seismologists, information and communications technologists and systems coordinators. Many of those with specialized skills were recruited under the national and international United Nations Volunteers (UNV) programme and deputed to government agencies and CSOs.

As the agency mandated by the United Nations system to coordinate the activities of various agencies working in Gujarat, UNDP helped to bridge the information gap between them and served as liaison between the Government, United Nations organizations and CSOs. The database using the geographical information system (GIS) set up by UNDP has been put to effective use in mapping disease profiles, initiating surveillance and in rectifying duplication of allotments in the construction of schools and primary health centres.

UNDP objectives in Gujarat were guided by the imperatives of addressing a multi-hazard scenario, bridging the gap between relief and reconstruction, developing best practices, encouraging community participation in recovery and empowering women in the rebuilding process. Each of these goals has been mediated by the State's paradoxical combination of traits. Gujarat's harsh ecological environment, poor social indicators and generally low levels of gender equality coexist with strong government, a robust economy, an indomitable entrepreneurial spirit, a large reservoir of technical skills, a vibrant civil society, and a distinctive range of traditional yet marketable crafts.

These particularities make a straightforward replication of lessons learned elsewhere difficult. Nevertheless, a review of UNDP interventions following the Gujarat earthquake can be instructive in comparable disaster scenarios in other regions of the world. This experience illustrates the importance of strategic intervention, using relatively small resources but following a knowledge-based approach, to close the gap between relief and long-term development in crisis and post-crisis countries. Properly applied, transition recovery can help to prevent countries afflicted with frequent crises – whether natural disasters, war, civil conflict or the breakdown of economic, political and social systems – from slipping into a downward spiral, where losses outweigh limited development gains and risks of future crisis accumulate.

This report sets out to promote transition recovery as a tool for sustainable development by defining the UNDP concept of transition from relief to recovery as pioneered in Gujarat and by describing its practical applications in the areas of shelter, livelihoods and local governance. It also examines the coordinating role of UNDP among various stakeholders and offers lessons learned and recommendations. The report is not intended as exhaustive coverage but more as commentary highlighting strategies and partnerships underpinning this unprecedented engagement. In Gujarat, UNDP vigorously took on the role of an implementing agency. Simultaneously, it discharged its more conventional functions in system-wide and stakeholder coordination. Given the magnitude of the task, the experience has been both stimulating and sobering and has provided a number of important lessons.

Nine months after the earthquake, a casual visitor to Gujarat cannot fail to be struck by evidence of the staggering destruction wrought in those fateful moments in January. A careful observer will see that the earthquake has exposed other fault lines – the dependency, vulnerability and inequality of communities and the relations between government, CSOs and citizens. It has potentially opened avenues not only for reconstruction but also to new forms of governance and social change. UNDP and all partners in development in Gujarat are working at multiple levels to ensure that people are doing more than simply trying to rebuild anew from rubble. Their success could determine the ways in which disasters can be harnessed as opportunities for sustainable development.

# Transition Recovery Concept in Gujarat

The UNDP transition-recovery project in Gujarat is a test case to take forward a concept whose key project outputs are vulnerability-reduction and disaster-mitigation initiatives through community-driven programmes.

UNDP used transition recovery in Gujarat as an approach with the potential to:

- Close the *gap* between relief and reconstruction;
- Break the downward spiral of unsustainable development and crisis and facilitate a *sustainable reduction in vulnerabilities* and risks;
- Improve *coordination* between a wide range of local, regional, national and international partners;
- Enable a rapid recovery of livelihoods and development with *relatively small financial inputs*,
- Build *capacities* and demonstrate *approaches* that can be applied on a large scale.

Disaster can become a development opportunity if relief efforts do not merely restore the poor status quo ante, but rather put people on a path to sustainable development. The goal in the transition phase must be to avoid a 'circularity of risk'. This is what can happen when houses built with valuable international assistance get washed away during floods, dams left unrepaired after an earthquake aggravate drought conditions, and procedural delays in receiving rehabilitation packages from government and donor agencies leave the poor more vulnerable to the next disaster.



Key to the success of transition recoveries is recruiting skilled personnel who can build on the principles of participation and self-help.

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**In every sector, transition should lead to recovery that facilitates movement to sustainable development. In other words, the foundations laid for sustainable recovery during transition must put people on a path to sustainable development.**

Praveen Pardeshi, Manager, UNDP Gujarat Programme

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To realize the concept, UNDP has put in place a transition recovery team (TRT). TRT members promote the use of sustainable development practices during the recovery phase, creating a bridge between relief assistance and long-term development programmes. Key to the success of the TRT is recruiting experienced development practitioners who can build on the principles of participation and self-help. At the same time, they must be able to operate in a chaotic emergency environment where systems and services break down.

The distinguishing characteristics of the UNDP transition-recovery project in Gujarat are:

- Vulnerability-reduction and sustainable development by *empowering local communities* in implementing shelter and livelihoods programmes;
- *Establishment of guidelines by the Government of Gujarat on standard practices for seismically safe houses*, which will form the basis for future construction;
- Coordination of the recovery process through *information management and processing*;
- *Dissemination of information*, in particular, seismically safe construction methods and government policy, to communities;
- Grass-roots *coordination forums that provide an interface* between communities, the district administration, and international and local CSOs;
- *Recruitment and deployment of National United Nations Volunteers* (with previous experience in earthquake response) and other specialized staff to support the sub-centre network, shelter and livelihoods projects and block-level administration;
- *Capacity building* of the Gujarat State Disaster Management Authority (GSDMA) by deputing technical experts.

## CSO-UNDP Partnerships

Innovative and wide-ranging partnerships with a number of CSOs have been pivotal to the UNDP programme in Gujarat. Among the organizations are the Kutch Nav Nirman Abhiyan, the Self-Employed Women's Association (SEWA), Jan Vikas, Navsarjan, Caritas (the overseas aid and development agency of the Catholic Church), the Centre for Environmental Education (CEE), Environment Planning Collaborative (EPC) and Behavioural Science Centre. The evolution of the UNDP partnership with Abhiyan, based in Kachch, the district most affected by the earthquake, is an illustrative example of the wide-ranging nature of CSO-UNDP collaboration.

Abhiyan came into being as a network of 22 grassroots CSOs in response to the devastating cyclone that swept through the district in May 1998, claiming 1040 lives. The individual groups came together to ensure greater coordination and better impact in relief and rehabilitation. Since then, Abhiyan has established itself as a network of CSOs in Kachch engaged as a collective in coordinated planning, advocacy and capacity-building activities in a range of development concerns.

Following the earthquake, Abhiyan, now a 29-member network, supports the work of member organizations in 300 villages in shelter reconstruction, dam repairs, livelihoods and community-driven rehabilitation.<sup>1</sup> As a coordinating umbrella organization, it has sponsored and set up earthquake rehabilitation support centres (also known as *setus*), which are village-level information and coordination units. In both these roles, Abhiyan has directed its collective efforts toward facilitating the implementation of people-controlled, equitable rehabilitation policies and creating transparent mechanisms for judicious use of resources. The network believes that the biggest challenge facing post-quake Kachch is to ensure that the massive funds that have poured in for relief, reconstruction and long-term rejuvenation do not increase dependence on external resources.

In entering into partnership with Abhiyan following the earthquake, UNDP was guided by several considerations. First was the status of Abhiyan as a pre-existing network with a proven track record and expertise in disaster relief and rehabilitation. More importantly, the foundations for this mutual stakeholder relationship had been laid earlier. The country office has supported the Kutch Mahila Vikas Sangathan (KMVS), a member organization of Abhiyan, in programmes under the Government of India/UNDP Community-based Pro-poor Initiative launched in 1997. The initiative aimed at social mobilization, capacity building of organizations, with a special focus on women and Dalits, and creating family and community-based assets. One programme covers 6000 women and their families in 180 villages in Nakhatrana, Pacchcam (Bhuj), Abdasa, Mundra, Rapar and Bhachau sub-districts of Kachch. It aims to empower women through education, leadership building, legal literacy, strengthened livelihood systems and ensured access to information. It also supports autonomous and self-managed producer groups as part of a craftwomen's union to increase production capacity and market share through a common service facility and the development of a common brand identity.



Praveen Pardeshi

The earthquake wrought the worst damage in the district of Kachch, the largest in the state.

<sup>1</sup> Abhiyan primary members are Anarde Foundation, Ashapura Foundation, Bidada Sarvodaya Trust, Bhimani Khadi Mandal, Gram Swaraj Sangh, Kutch Yuvak Sangh, Kutch Environment and Ecology Cell, Kutch Mahila Vikas Sangathan, Lions Club, Bhuj, Rural Agro Research and Development Society, Sahjeevan, Sarva Sewa Sangh, Shrujan Trust, Vivekanand Research and Training Institute. Associate members are Bhojay Sarvodaya Trust, Kutch Ecology Foundation, Kutch Food Fodder and Forest Development Trust, Kutch Visha Oswal Jain Mahajan, Sahajanand Rural Development Trust, Saraswatam Trust, Vivekanand Gramodhyog Society, Shree Sangh (Ratadiya), Guide (Bhuj), Saath (Rapar), Veerayatan (Bhuj), Corbett Foundation, Yuva (Rapar), Yusuf Maherally Centre (Mundra), Viksat (Bhuj).



In November 2000, Abhiyan, in cooperation with the Government of India and the country office, held a workshop to address the problem of recurrent drought in Kachch, following which it submitted a proposal to the Government of India Ministry for Rural Development to "drought-proof" 50 villages in the district. These pilot projects seek to break the cycle of dependency and erosion of self-reliance created by short-term drought relief projects and instead foster wage employment in sectors that would safeguard the villages in times of drought. At the suggestion of the Government of India, UNDP agreed to fund the proposal.

**I**n the context of the earthquake, the partnership between Abhiyan and UNDP has transcended conventional donor-CSO ties to become a synergistic relationship on many levels. Indeed the quantum of funding is the least important factor in the partnership for Abhiyan whose earthquake budget is \$9.5 million, compared to \$6 million by UNDP. What Abhiyan values instead is the deployment of UNDP funds in small but key demonstrative projects that can have a multiplier effect across the state. UNDP has not restricted itself to a funding role, say Abhiyan members, but has been generous with non-financial resources. In the shelter sector, a unique aspect of the partnership between Abhiyan and UNDP was the confidence of UNDP in the network's concepts and programmes. From the perspective of Abhiyan, it was to the credit of UNDP that it extended the kind of support that enabled the network to function at optimal levels.

By placing the technical expertise of a wide range of UNV volunteers at the disposal of Abhiyan members, UNDP has helped to build the capacity of local CSOs in the critical areas of shelter design and construction, information dissemination and management and local governance. The familiarity and confidence that characterize the Abhiyan-UNDP partnership have proven critical to effective functioning in a disaster scenario. UNDP leverage with government agencies at the district and state levels has also been an asset to Abhiyan members. The partnership has overcome potential sources of friction to evolve into one of mutual trust and respect.

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**As a local network, our strength is to push for and implement policy changes in our geographic area. It is very important for us to have UNDP as a partner that will advocate these issues nationally and internationally.**

Sushma Iyengar, Convener, Abhiyan

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For UNDP, Abhiyan has been the springboard from which it has launched its concept of transition from relief to sustainable recovery. The partnership has helped UNDP to transmit its limited but high-value material and human resources in each of its focus areas. In the area of shelter, for example, UNDP-supported demonstration houses in 25 villages are being replicated across the 300 villages covered by the Abhiyan network, in turn influencing the design and implementation of projects by other CSOs, government agencies and the private sector.

Taking this further, UNDP spearheaded watershed and drought-proofing programmes with CSOs under the umbrella of Jan Vikas. EPC provided technical inputs, in coordination with Abhiyan and Aga Khan Foundation, for community-based ecological planning modules to ensure security of livelihoods in drought-prone villages. In collaboration with SEWA, UNDP is implementing a gender-sensitive water security programme in Patan. Caritas, Lions Club, Sampoorna Bamboo Kendra and Behavioural Science Centre have, with UNDP support, executed temporary shelter programmes for the urban displaced in Bhuj.

## Shelter

Rebuilding lost and damaged homes was an obvious and immediate priority after the earthquake. The task is monumental. In Kachch alone, at least 100,000 houses were destroyed and 300,000 severely damaged. Statewide, the figures are 344,000 houses destroyed and 888,000 damaged. By comparison, the 1993 Latur earthquake left 45,000 houses in ruins and damaged 120,000.

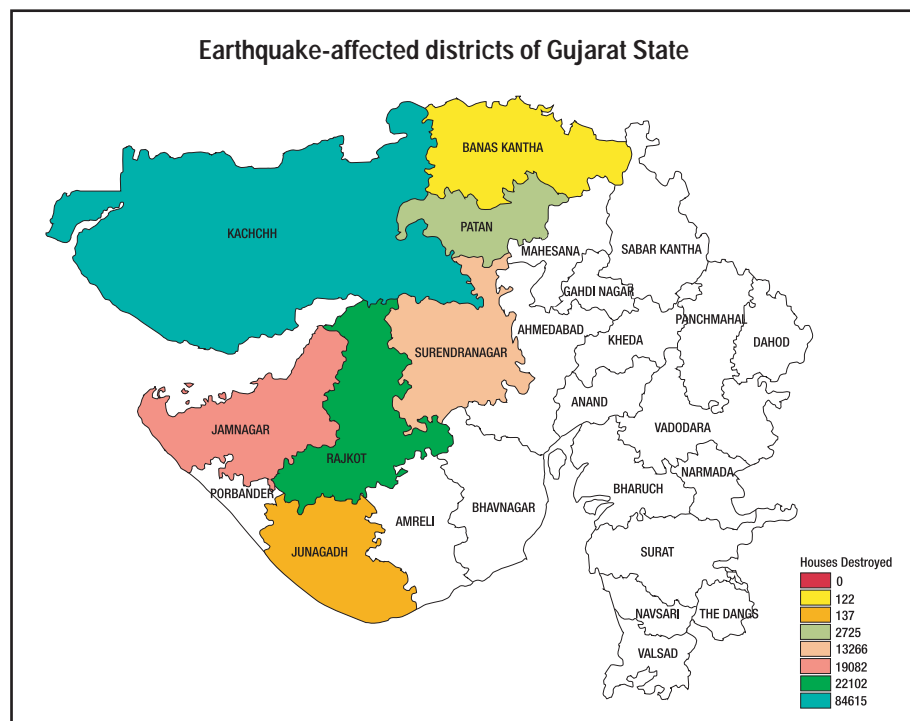
The principal objectives of the shelter programme are to reduce vulnerability, build capacity, promote sustainable recovery, demonstrate seismic safety in housing and provide alternative accommodation for the rural displaced. A draft shelter policy from Abhiyan circulated among international CSOs as early as February emphasized that the process of rebuilding houses should be informed by the larger vision of building self-reliant and sustainable communities. It must also have a multiplier effect on the local economy by using local labour and local materials. To give the community a stake and sense of ownership in rebuilding, reduce dependency and enable the greatest possible innovation and diversity, government reconstruction packages should prescribe guidelines rather than designs, technologies or materials. The broad consensus on the Abhiyan shelter policy among

other CSOs and international organizations, including UNDP, provided a solid basis for reconstruction.

Drawing from the experiences in reconstruction in Latur, UNDP, with Abhiyan, was able to score two significant policy victories in Gujarat. The first was to get broad consensus among all stakeholders on *in situ* reconstruction rather than relocation. There are obvious advantages to the former: an existing infrastructure of roads, water supply, drainage, village tanks and electricity, and protection of nearby irrigated lands that can be destroyed with relocation. Moreover, the lessons of Latur are clear: two years after that earthquake, a survey found that 97 per cent of people in 52 villages were happy with their *in situ* homes, owner-built at \$320 (INR.15000) per unit, compared to only 48 per cent of people satisfied with their relocated houses, built at unit costs ranging from about \$1170 to \$4340 (INR.54000-INR.200,000).

This aspect of policy advocacy by Abhiyan and UNDP was made possible by the ability of the *setus* to collect accurate opinions and village council resolutions from 450 villages in eight days. The importance of accurate data collection immediately after a crisis cannot be overstated. It is this, as much as if not more than the credibility of individual development actors, that ensures the success of advocacy.

In a second policy victory, Abhiyan-UNDP obtained broad consensus on the need to empower people to build their own homes as a way to pin accountability and responsibility and instill self-reliance. In Latur, thousands of people waited five years for the Government to construct their houses. Contractor-built houses are not only disempowering, but can incrementally regress to non-seismic structures. On the other hand, once people are given technical inputs on seismic safety features, owner-built houses help to internalize the know-how and to foster experimentation through different approaches and mix of technology. Involving the community in design helps to cater to specific agricultural needs such as grain storage, cattle-rearing and milk-processing.



With agreement on these parameters, the Abhiyan-UNDP shelter strategy had the following key elements:

- Build the capacity of *local masons* to construct seismically safe houses;
- Develop *local entrepreneurship* to service local recovery;
- Demonstrate *best practices* in owner-driven housing that can be emulated by development institutions and the Government on a large scale;
- Integrate *innovative approaches* (such as rooftop water harvesting features to mitigate the effects of drought, use local materials to revitalize the local economy and reduce costs) to address multi-hazard scenarios.

The next step was to decide on methodology. UNDP extended support to Abhiyan for the construction of 1270 permanent houses in approximately 90 villages. Of these, 500 would be built as demonstration houses with seismic safety features at a cost of Rs. 42,000 per unit in 74 villages. Following this, 770 houses would be built in approximately 25 model villages in Rapar, Bhachau, Mundra and Bhuj. The most vulnerable people in each village – widows, the elderly, women-headed households and those with disabilities – would be the first beneficiaries. These houses would serve as models for homes in all villages covered by Abhiyan as well as for houses built by the Government.

UNDP placed at the disposal of Abhiyan 25 engineers, recruited under the National United Nations Volunteers (NUNV) programme, who had designed earthquake-resistant homes in Latur. They participated in workshops conducted by an Abhiyan team that trained roughly five masons from each village in batches of 25. These masons have in turn trained others. The training of masons by CSOs and United Nations organizations has enlarged the pool of 8,000 trained masons in Kachch. Building community capacity was a crucial goal; it was equally important that CSOs engaged in development did not find themselves becoming construction contractors. In Dhrobana village, a father boasts of his teenage daughter's new masonry skills and jokes that perhaps they will help to reduce dowry at her marriage.



Bharati Sadasivam

Learning from tradition: the circular Kachchi house, the *bhoonga*, withstood the earthquake while modern structures gave way.

Houses are designed keeping in mind the needs of the householder. At Rajansaar village in Bhachau, the houses of all 93 families were destroyed and are being rebuilt. Tejibai, a 70-year-old widow, was among the first to have hers rebuilt to her specifications. It's bigger and better, she says, with a wide toothless smile. Houses in different stages of construction have pictures of Ganesha, the Hindu god of good fortune and good beginnings, above the doorways – testament to people's sense of ownership and belonging.

Many innovations have come from the Abhiyan shelter design cell. The cell works in consultation with the Indian Institute of Technology, Bangalore, and Auroville, Pondicherry. Designers drew from the lessons of NUNV engineers in Latur and from the traditional Kachch style of construction. Mindful that reconstruction should be an owner-driven process, with people given a choice of designs and building materials, the shelter cell began building model houses at its premises in Bhuj. These would be used to train masons in seismically safe technology, create awareness among village communities of the options available, and enable Abhiyan member organizations and others to access, learn and adapt these methods.

## The earthquake-resistant house

**A**n earthquake-safe house is one whose foundations are built with header stone. The walls are strengthened with four reinforced cement concrete bands at the plinth, sill, lintel and roof levels. These provide vertical containment reinforcement bars at all corners and junctions.

The use of local materials such as earth, debris stones and red sandstone in reconstruction is strongly encouraged. A house built with compressed stabilized earth blocks (CEBs) of compressive strength 50 kg./sq. cm., for example, is 25 times cheaper and more energy-efficient than one built with conventional materials. Local material will also be available for later repairs and maintenance, and not render communities dependent on outside resources at a later date.

An earth home is cold in summer and warm in winter because of hydrothermic properties of the soil. In combination with earth technology, the use of ferrocement for roof channels is more economical than concrete. Ferrocement is a type of thin-wall concrete usually made of cement mortar, reinforced with layers of closely spaced mesh of small diameter. It is considered to be an extension of but separate from reinforced concrete cement. It has the relative advantages of being light in weight (needing fewer building materials, a lighter supporting structure and easy-to-handle prefab elements), waterproof, tough, ductile, durable and crack-resistant. It also has a higher ratio of labour/building material and does not call for highly skilled labour or heavy machinery. Major prefabricated products using ferrocement are roofing elements, water tanks and latrines.

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**Earthquake-resistant technologies should not be mystified. They are very simple concepts and principles that can be easily understood and adopted by rural communities.**

Abhiyan Shelter Policy

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Roof-water harvesting features are part of the new designs so that the houses being rebuilt are able to withstand not only seismic activity, but also recurrent cyclones and drought. Architects are also drawing from the traditional circular Kachchi house, the *bhoonga*, built with a conical roof, mud, sticks and a wooden support. Many of these withstood the earthquake while modern structures gave way.

An integral aspect of earthquake-resistant technologies is involving village communities in design and reconstruction. Village-based committees enable such community participation. Villagers who take part in rebuilding damaged or destroyed houses are more likely to overcome their fear of living in them than in houses built for them by outside agencies.



Bharati Sadasivam

Compressed stabilized earth blocks: a house built with CEBs is much cheaper and more energy-efficient than one built with conventional materials.

The demonstration houses serve an important public purpose in a setting where government housing assistance is in many instances being disbursed without engineers and masons trained in building seismically safe houses being in place in every village. An *aide memoire* of the World Bank field mission has recommended to the Government that demonstration houses be quickly erected in every village to help people make the right choices.

The shelter strategy has also attracted interest from the private sector. The Tata Relief Committee (of the industrial House of Tatas) is undertaking the reconstruction in the villages of Vavaniya, Bagasara, and Amran in the districts of Rajkot and Jamnagar. It is providing US\$1.4 million for to rebuild 1000 houses and 58 schoolrooms using earthquake-resistant techniques. UNDP has deputed a team of architects, engineers, and community field workers to these villages to ensure that the best practices and lessons learned in Kachch are replicated in these two districts. In an encouraging example of public-private partnership, local CSOs with a proven record in Gujarat are working with UNDP to execute the Tata project, which will be owner-driven and community-inclusive.

**R**etrofitting houses that suffered partial damage can be an effective way of reducing risk at relatively low cost. The seismic retrofit process modifies an existing structure to strengthen its earthquake-resisting elements. Retrofitting may not eliminate structural damage but can limit it to reduce loss to life and property. One approach is to use conventional strengthening techniques that shore up the structure against pressure. The other is to reduce the demand on the structure through an earthquake protective system such as seismic isolation or the induction of a mechanical energy device that dissipates energy and minimizes response.

UNDP is supporting a project with Abhiyan to retrofit houses in 20 villages on a demonstrative basis. To ensure that the resources available reach as many marginalized communities as possible, the Abhiyan shelter cell has come up with two schemes. The first will repair and retrofit 55 houses, two or three in each village, on a demonstrative basis at an approximate cost of about \$430 (INR.20000). The elderly, widows and women heading households will be given first priority. Under the second scheme covering 380 houses,

other villagers will be offered material kits costing about \$150 (INR.7000) and \$21 (INR.1000) towards labour, with the rest of the costs borne by the house-owners. Their participation leads to an owner-driven programme while the resources saved will go toward retrofitting more houses. Both schemes together will help train 60 masons in 12 villages. By October, 35 houses had been completed under the two schemes.

The earthquake took an especially heavy toll in the urban areas. These have however received far less attention from CSOs than rural areas, which is a matter of concern. Bhuj, Bhachau, and Anjar, hubs of economic activity in the district, were devastated in the earthquake, which also cut off their links to villages. UNDP is building temporary shelters for the urban displaced in partnership with a cluster of CSOs and development agencies. They are Aga Khan Foundation, Behavioural Science Centre, Caritas India, Lions Charitable Trust, Indian Institute of Architects and Sampurna Bamboo Kendra. The temporary shelter programme, supported by the European Commission Humanitarian Aid Office (ECHO), will benefit more than 3,350 families of roughly 17,000 people. Land and limited funds for sanitation facilities at the project sites have come from the Government of Gujarat. These shelters also help the district administration to map out a holistic reconstruction and development plan for the ravaged cities, while providing people with a respite during reconstruction, which may take up to four years.

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**We decided that the best houses in the village would be those of the Dalits and the best schools would be in Dalit areas.**

Martin Macwan, Navsarjan

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**O**utside Kachch, UNDP supports reconstruction efforts in Surendranagar and Patan districts with Navsarjan Trust, the largest organization in Gujarat addressing the rights of Dalits (social outcasts and so-called 'untouchables'). With 187 full-time professionally trained activists, 87 of them women, Navsarjan is active in 2000 villages in 11 districts. For a mass struggle-based organization that focuses on policy advocacy for social change, Navsarjan took up development projects for the first time after the earthquake. Support from UNDP led

to a mutually rewarding partnership. It was also a unique social experiment, with potentially far-reaching consequences.

Beginning with the premise that Dalit communities in the villages would inevitably suffer the worst discrimination in matters of entitlements and compensation after the earthquake, Navsarjan mobilized engineers, masons and funds to build 3000 houses in villages in Surendranagar and Patan districts. Of UNDP support of \$76,100 (INR.3.5 million) to Navsarjan, half has been used to provide direct grants to 700 beneficiaries in the form of cement for reconstruction. The other half will be used to give approximately 117 families loans of \$320 (INR.15000). The loans will be repaid over the next five years and go into a revolving fund to help the community face future manmade and natural disasters.

A total of 175 engineers, some of them leaving government jobs in Rajkot and Baroda, took on the task, each being responsible for about eight villages. Their dedication and commitment ensured both speed and quality of construction, making these demonstration houses for other villages. Soon Navsarjan engineers and masons began to be approached by non-Dalits, asking that they build them their houses – and in the process crossing strictly delineated social boundaries. Instead of focusing on entrenched attitudes of discrimination against Dalits, made worse in a disaster scenario, Navsarjan decided to seize the opportunity afforded by the earthquake to work proactively and force social change.

In Patan, the Self-Employed Women's Association (SEWA) has taken up reconstruction in Bavarda village in Patan district. SEWA is training masons, including women, and propagating seismic safety techniques among village communities. It is also integrating livelihood risk mitigation measures, such as rainwater harvesting structures and village ponds, to secure drinking water and mitigate the impact of drought on cattle rearing activities. Women engineers and village-based SEWA members are supervising the work.



Praveen Pardeshi

Involving the community in reconstruction helped architects to cater to specific needs.

With UNDP support, SEWA has undertaken the reconstruction of a village in the Banaskantha region. SEWA, a reputed civil society organization that has pioneered trade

unions and credit collectives for women, has been active in this region for more than ten years. With a membership spread across several villages, it was well placed to carry out damage assessment, disburse relief and organize reconstruction and rehabilitation activities.

To coordinate its efforts, SEWA has started work on an information coordination centre (*setu*) for 14 villages in Dabhi. UNDP has assigned a NUNV engineer the task of carrying out an assessment of houses being built by SEWA. A NUNV community specialist is helping to spread awareness about seismic safety and understanding the requirements of the villagers. Apart from coordinating reconstruction activities, the *setu* will also help in gathering and disseminating information about SEWA's economic regeneration programmes.

## NUNV volunteers rebuild more than just houses

**N**aresh Maheshwarrao Shastri is among the rural displaced in Godpar – with a difference. An engineer trained in earthquake resistant re-construction after the 1993 earthquake in Latur in the neighbouring state of Maharashtra, Shastri has relocated to this devastated village in Bhachau sub-district. He walks about six kilometres to work everyday and is trying to get used to living in a place that was levelled by the earthquake. But Shastri isn't complaining. He has a big task ahead of him: building 58 seismically safe houses for the poorest tribal Koli community of salt workers in Godpar village – houses that will serve as models elsewhere of seismically safe structures.

Arun Dharmapal Kapse, based in Rajansaar, has helped rebuild 40 seismically safe houses, of a target of 93. Latur Basheshwar Shete has been working in Dhrobana and Nanabandha on earthquake-resistant reconstruction. Banikar Mohammed Saleem is helping to repair dams in Khari and Andhau villages, which are prone to water scarcity.

About 21 specialist engineers from Latur are working in the quake-hit parts of Gujarat under the National United Nations Volunteers (NUNV) programme. Their technical expertise and hands-on experience are key to the strategic objective of UNDP and Abhiyan of rebuilding homes without reconstructing risk. NUNV engineers train masons in disaster-resistant techniques, thus enhancing local capacity and awareness and promoting self-reliance in the villages. They can be said to be also playing a role as social engineers – coordinating and organizing the masons training programme and involving the community and the members of each household in the process of re-construction. They also help villagers to identify low-cost and locally available building material.

Pritesh Naresh Shah is the technical expert attached to the *setu* at Juna Kataria. He helps motivate villagers to adopt seismic safety features while rebuilding their homes, and is responsible for building four demonstration houses in Modpar and six in Wandiya. Mehul Acharya, an engineer from Kachch, has been teaching masons to prepare compressed mud blocks and ferrocement roof channels, for example. They are among the large number of NUNV volunteers from Gujarat who pitched into rehabilitation efforts as engineers, information technologists, community specialists and field workers. Sunil Tiwari and Kirti Mulani, two community specialists from Ahmedabad, have worked with CSOs in Gujarat to distribute relief material in urban and rural areas, mobilize youth and women to help their communities in 18 villages, and allocate temporary shelters in Bhuj.

Akshat Chaturvedi, a coordination support specialist, facilitates the work of all 47 NUNV volunteers in Kachch. As part of his work organizing awareness campaigns, he has helped to distribute pamphlets, posters and brochures in the local language, Gujarati, at village fairs and community meetings. A booklet on frequently asked questions about government policies was especially useful for heads of village councils. Posters have appeared with the question: "Are you a mason? Kachch needs you." More than 1000 people, including masons, visited an information booth at a village fair to learn about disaster mitigation and hazard-resistant technology in rebuilding their houses. Cassettes and compact discs also popularized these themes through music and drama, and have been used in village meetings. "Verbal communication is an essential part of making the community aware about natural calamities," says Chaturvedi. "Community-based awareness campaigns must be interactive, especially in a rural areas such as Kachch and Patan, where the literacy rate is very low."

**T**he NUNV programme has proven to be an effective vehicle for UNDP to share specialized resources with its key partners in the Government and in civil society. Hemang Karelia, Sumesh Sundaran, Ketan Trivedi, Mausomi Soni and Kalpan Tolia, information technology specialists, have been deputed to the district administration and GSDMA to develop a database based on the geographic information system (GIS). They have designed the rehabilitation information management system (RIMS) software to help the administration compile voluminous damage data from urban and rural areas in nine sub-districts of Kachch. This determines the placement of households in the G1-G5 categories and compensation packages.



Praveen Pardeshi

NUNV engineer Anil Yenegure Sangappa explains seismic safety features in reconstruction to villagers in Dhandalava in Kachch district.



Aakshat Chaturvedi

NUNV volunteers distribute pamphlets and posters on earthquake-resistant methodologies at village fairs and community meetings.

Once compiled, the data is made available on the UNDP earthquake web site <[www.undpquakerehab.org](http://www.undpquakerehab.org)>, and conveyed to the Government and CSOs at the district and sub-district levels and to the households themselves. Mushtaq Patel, who helped to design the web site, is also part of the team that has set up the Kachch Rehabilitation Information Centre (KRIC) to avoid duplication in information processing. Anuragini Nagar, information officer, updates the web site and has been documenting UNDP partnerships with CSOs.

Says Karelia, “Converting the database to GIS and holding fast to our mission to provide the right information at the right time helped to speed up recovery efforts.” Sundaran, who provided GIS support to the district administration, also worked on *Coming Together*, a joint publication of UNDP and Abhiyan that provides comprehensive information on the role of civil society in rehabilitation efforts. Soni is excited by the ability of RIMS to support two front ends (Intranet and GIS) with a single database. “We can generate reports and maps at the same time.”

Jyoti Dahiya, an architect planner, works with the Abhiyan shelter cell. Dahiya spends most of her time in the villages, observing traditional houses and interacting with the community, based on which she offers villagers different design options. Initially it was only men who decided on the design, says Dahiya. “Then I started talking to the women separately, asking them what they want since it is they who are at home most of the time. Now even the men realize that women must have their say.” Narendra Pal Singh, also an architect planner, is working on temporary shelter projects for the urban displaced in Bhuj, Anjar and Bhachau.

Rahul Sengupta, a community specialist from Delhi, has been deputed by UNDP to Abhiyan as project coordinator of the *setus*. “What I like best about my assignment is that by working to reduce vulnerability, we make ourselves dispensable to the system,” says Sengupta. “We can be assured that after we are gone the people for whom we have worked have become self-reliant enough to face future disaster.” NUNV volunteers working at the village cluster level interact closely with the community, helping to identify skilled labour and low-cost local material – two key elements in the Abhiyan/UNDP project of reconstruction of permanent shelters.

Of 72 NUNV volunteers recruited in Gujarat soon after the earthquake, 45 remained in October, working in various areas of recovery. There are 21 engineers (19 from Latur), four architects, and six information technology specialists, in addition to eight NUNV volunteers in humanitarian assistance and six with WHO (five doctors working in disease surveillance and one water specialist).

As early as February, UNDP mobilized 28 community field workers under the NUNV programme to work in Rajkot and Sunrendranagar districts. They worked as a coordinated emergency task force in the relief phase, carrying out an assortment of priority tasks. They conducted a baseline survey of affected villages (on food, water supply and assistance packages), and helped to update the list of beneficiaries, distribute relief material – especially in remote villages not covered by relief agencies – mobilize support from the community to clean up debris in building temporary shelter, set up self-help groups and youth clubs and provide counselling services. Their supervisor, Mohanlal Sharma, a community specialist with experience in Bangladesh, has led their efforts in data collection on damage and reconstruction and identifying beneficiaries of shelter assistance packages.

The NUNV programme in India ranks third among 140 countries, after East Timor and Kosovo. India has the largest national NUNV programme, says Marcela Taraborelli, NUNV Programme Officer in the country office in New Delhi. The country has a large qualified pool of people who can provide specialized assistance where it is needed most. “The UNV programme is the only way we can send qualified people to rural areas, especially after a disaster. Being a UNV volunteer calls for a spirit of volunteerism, some amount of self-sacrifice and the ability to live without much material comforts,” she says. The programme is also the only effective way to recruit professionals with prior experience and knowledge who can transfer knowledge to local communities. They make a great impact, says Taraborelli, whether they are building houses, doing social work, mobilizing people, training masons or creating social initiatives for the community. “The villagers have developed an affinity toward UNV volunteers. They leave behind something more than houses, they often leave behind new social networks.”



## Information, Coordination and Local Governance

In the immediate aftermath of the earthquake, there was a pressing need to ensure the coordination and distribution of the millions of tonnes of relief materials that overwhelmed the state. By February, Abhiyan had set up 33 sub-centres across the district of Kachch, managed by senior Abhiyan workers and local CSOs. Each sub-centre covered a geographical cluster of 15-20 villages in all ten sub-districts of Kachch, from Abdasa in the west to Rapar in the east. The initial task of this decentralized network was to ensure a coordinated, non-discriminatory distribution of relief. When the Government reviewed the role of these sub-centres later in the relief phase, it mandated these official earthquake rehabilitation support centres. Abhiyan renamed and reconfigured them as *setus* (Sanskrit for bridges). And so a uniquely innovative experiment in coordination and information came into being. UNDP support totals \$158,000 (INR.7.3 million) and \$211,000 (INR.9.7 million) (through DFID and USAID respectively).

The idea is almost classical in its simplicity: a network of village-level centres that provide a trickle-up flow of data, feedback and information to influence policy and programmes. A *setu* is conceived as a nodal link between all the actors in relief and rehabilitation. Its stakeholders are government agencies and officials at different levels, CSOs, the donor community, the village community and the *setus* themselves. Primarily intended to bridge the gap between the efforts and outcomes of the rehabilitation process, the *setus* ultimately aim to make people less vulnerable in a multi-hazard environment by harnessing local resources to optimal levels.

To do this, the *setus* have a wide-ranging set of activities. They facilitate coordination between government agencies and CSOs on the one hand and the village community to ensure a proper flow of benefits. They serve as platforms for redressal of grievances and transparency of procedures. They enable a two-way information flow. They are the community's advocates for sustainable rehabilitation, sensitizing the Government, donors and other stakeholders and engendering people-centric policies. Finally, the *setus* are charged with institutional capacity building at multi-disciplinary levels, from information technology to disaster preparedness. Each *setu* has a staff of seven – two professional social workers, two village motivators (*gram preraks*), one information manager, one accounts officer and one local or Latur civil engineer. The last helps to spread the word on seismic safety standards and monitors reconstruction.

Within months of their formation, the *setus* had won the confidence of a range of actors and were storehouses of voluminous information, ranging from the mundane to the profound. *Setu* staff and volunteers could speak of the death toll in the villages, progress on temporary (*kachcha*) and permanent (*pucca*) houses, the amount of financial assistance received, the formation of village councils and women's and youth committees, the training of masons and support for artisans. Equally, they were privy to the deprivations of widowhood, the burdens of sudden disability or loss of health, depression and other psychosocial issues, and questions of adoption of orphaned children. They are conducting door-to-door surveys in 360 villages to reassess livelihoods, update village profiles and monitor disabilities.

In some villages, the *setu* has involved the private sector in rehabilitation. In Samakhiali in Bhachau, the *setu* helped to organize the training of masons by the Gujarat Ambuja Group, a private cement company. The coordinator of the Juna Kataria *setu* facilitated meetings between the representative of the Confederation of Indian Industry and the village community.

Projected as neutral and disinterested parties that can earn the confidence of all parties, the *setus* are gradually coming to terms with the fact that their identity is separate from that of a CSO, a United Nations agency or the Government; they belong solely to the community. It is not always easy – some cannot understand why they cannot be considered part of Abhiyan when they depend so much on it for guidance and financial support. Yet it is critical that the *setus* function independently if, in the words of Abhiyan, they are to be a means of moving to a better form of governance, not just a better form of social work.

**Grievance redressal:** No sooner had the Government embarked on the process of assessing the damage to houses than the complaints started to flow in. By the Government's own admission, it had been overly hasty with damage assessment, and far too many houses were mistakenly classified in the G1-G3 categories, indicating less damage and proportionately

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**What I like best about the *setus* is that we serve the people not by giving them material benefits but by empowering them by making them aware of their rights and what the Government can do for them.**

Jagdish Chad, Coordinator, Pragpar *setu*

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lower compensation than those classified as G-4 or G-5. The *setus* investigated several such complaints and their findings, conveyed to government agencies, were such as to warrant a re-assessment of the damage. As a result, several families were granted higher financial assistance to build seismically safe houses.

As reconstruction got underway, other complaints came to the fore. These mostly involved deliberate and motivated delays in the release of compensation by government engineers, who were required to ensure that reconstruction met seismic safety standards at every stage before sanctioning subsequent installments of compensation. *Setu* staff members who intervened were able to ventilate people's grievances at appropriate government levels as well as verify claims of seismic safety. Erroneous assessment deprived more than half the people in Khodasar village of the first installment of compensation. The matter was resolved after the *setus* helped the villagers navigate the bureaucracy by bringing the matter to the notice of government officials at the sub-district and district levels and to GSDMA in the state capital, Gandhinagar.

The grievance platform of the *setus* has been instrumental in ensuring non-discrimination and protection of the marginalized in the socially stratified villages. The *setus* sometimes do this through proactive litigation rather than waiting for complaints from the community because not everyone is aware of their

rights or able or willing to go to the authorities. In Kakarwa village in Bhachau sub-district, for example, J.P. Industries, which had adopted the village, rebuilt 524 houses and handed over their keys to the village council (*gram sabha*). People with clout in the council saw this as an opportunity to redraw the community map of the village and ordered 32 families they considered social outcasts to leave. The matter came to the notice of the nearest *setu* at Kharoi, which went to a socio-legal organization called the Centre for Social Justice and filed a case with the ombudsman (*lokpal*). The families have now been restored their houses.

**Information management:** The *setus* have enabled a two-way flow of information from government agencies to the village cluster and vice-versa. It ranges from mundane logistics and data collection to people's health and psychosocial status. For example, they were able to pinpoint the reason for the gap between government claims that 70 per cent of Kachch district had received compensation and people's claims that the figure was not more than 50 per cent. The problem lay with the bank, which had not transferred cash reserves to the village-level branches. Lacking the staff strength to service the claims, the bank was open only two days a week, resulting in a backlog.

The *setus* ensure that information from the district administration on damage assessment, village adoption polices and government resolutions reach the village community. From the field, they convey to the administration village profiles, progress on the construction of temporary and permanent shelter, health and education infrastructure and the health status of those affected. For example, between April and August, a compilation of data showed a rising rate in the disbursement of first installments and a rising rate of seismic safety, indicating that reconstruction was going according to plan.

The *setus* are especially well placed to help resolve a widespread problem – overlap in the allocation of schools and primary health centres for reconstruction to CSOs and donor agencies, due to multiple levels of decision-making in the Government. Their feedback from the village clusters to the district administration has been key in bringing about reallocation. In the health arena, a survey conducted by the *setus*, in collaboration with the Indian Medical Association and Spandan, a civil society organization, ascertained the number of people rendered disabled by the earthquake and those receiving government compensation



Praveen Patdeshi

Women home owners receiving pamphlets on seismically safe reconstruction from NUNV engineers at a temple fair in Bhachau in Kachch district.

and medical support such as prosthetic limbs and therapy. The survey helped to schedule physiotherapy sessions at the *setus* and bring patients to health camps conducted subsequently. Another *setu* health survey resulted in planning shelters that incorporate features for disability access.

The critical importance of information flow in real time between the Government, CSOs and the community has underscored the need to electronically connect the central coordination cell in Bhuj with each *setu* to enable speedy transfer of the voluminous data being handled by the district administration. With UNDP support (through USAID), Abhiyan has set up the Kachch Rehabilitation Information Centre (KRIC) for the collection, processing and dissemination of information. Support for one management consultant and four information technology (IT) specialists for KRIC has come from UNDP, while Abhiyan is funding two more IT personnel.

KRIC has developed a rehabilitation information management system (RIMS) software to analyse village-level data generated by the *setus* on progress in the shelter, health, schools and livelihoods sectors. It then feeds this data in management information system (MIS) format to all stakeholders. RIMS covers rehabilitation activities in the sectors of shelter, health, water structures, retrofitting and livelihood. It collates information from the *setus* and CSOs. UNDP has also been able to interest some of the best software companies in the country in developing software integration systems that will facilitate the flow and analysis of data. They will take it on at low cost as a social responsibility.

**Coordination:** The *setus* are uniquely placed to act as links between the spectrum of agencies in the rehabilitation process – from the district administration to international organizations to local CSOs. By serving as a bridge between the administration and the village community, the *setus* enable the latter to avail of schemes that are meant for them. The NUNV engineers deputed at the *setus*, for example, help to propagate seismic safety features in reconstruction, which are essential for villagers to obtain government certification and timely installments of financial assistance. The part played by the engineers has had a gratifying impact on the reconstruction process, especially in owner-driven houses, which accounts for about 80 per cent of the total. By ensuring that more people adopt correct construction practices or strengthen repairable houses through retrofitting, NUNV engi-

neers have had a much greater impact than engineers who have been hired by organizations and put into actual construction work.

The *setus* link the Government and CSOs, helping the former to keep track of rehabilitation and the latter to navigate government procedures. The *setus* have also drawn CSOs to villages for the first time. For example, Shrujan, a handicrafts collective and member of the Abhiyan network, and the Kachch Ecology and Environment (KEE) Cell are active in the villages of the Kodki cluster thanks to the efforts of this *setu*.

**Advocacy:** The *setus* have identified a range of rehabilitation issues and voiced them at appropriate forums for resolution. People in Boladi village, for example, were using schoolrooms to store fodder. The teacher no longer came to the school because there were no arrangements for room and board. In talking to the villagers, a *setu* team discovered however that they were keen to send their children to school and willing to provide the teacher with housing and food arrangements. Enlisting the participation of the villagers and serving as a liaison between them and the teacher, the *setu* has helped to reopen the school.



“Information on seismically safe construction of houses is available here”: a UNDP banner at a temple fair in Bhachau in Kachch district.

The *setus* have often worked proactively to be effective advocates for the community. The *setu* in Adhoi village has implemented a temporary shelter programme in four villages, covering 901 families. The Kambrau *setu* has done so in 12 villages, covering 1,892 families. The Khambra, Nilpar, Boladi and Pragpar *setus* have undertaken retrofitting projects in six villages.

These were primarily exercises to build rapport with and create awareness in the village community of retrofitting processes. Elsewhere, they have helped to set up village councils and information committees, the latter composed of five or six young people who collect data and keep the *setus* abreast of new developments. This not only facilitates bottom-up flow of information from the grass-roots, but also involves the youth in rehabilitation of their villages and builds the capacity of the community.

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**Rebuilding houses is only one part of the challenge. We see the earthquake as an opportunity to rebuild a more equitable social structure, working through caste and gender issues and building the confidence of the most vulnerable people in society.**

Supriya Akerkar, Gujarat Project Director, ActionAid India

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In less than a year, the *setus* have come to be seen to possess undeniable strengths. They enjoy a rapport with the villagers, are in a position to provide them with immediate information on compensation packages and can guide village councils in matters of rights and entitlements. They play a key role in bridging what the

World Bank has identified as communication gaps, especially about housing packages and entitlements, between beneficiaries and lower-level government functionaries, in facilitating public-private partnerships and in strengthening information and data exchange between the Government and its partners.

But their weaknesses are clear and need to be addressed: a high turnover of staff, the low morale that results from dashed expectations of villagers who expect the *setus* to provide material relief, and the lack of consistently strong support from government officials.

**T**he *setus* work closely with Sneh Samudaya (Caring Community), a collective of eight organizations set up by ActionAid.<sup>2</sup> Active in 128 worst hit villages and 10 urban pockets spread over the four sub-districts of Anjar, Bhachau, Bhuj and Rapar, Sneh Samudaya has the village presence needed to strengthen the information network of the *setus*. Its member organizations have built temporary shelters and instilled principles of seismic safety

among the masons they have trained. The first priority is to provide shelter to the most vulnerable – widows, the elderly, the socially disenfranchised, and orphans.

In any disaster situation, the rights and entitlements of people, especially the marginalized, take a beating. Sneh centres set up in all villages where the Samudaya is active have helped create a support system at the community level for the most vulnerable groups – women, children, the elderly, people with disabilities and minorities – who have been left out of the mainstream rehabilitation process or are the last to receive benefits due to them. They serve as community centre and meeting place in which villagers can exchange information on entitlements, compensation packages and other aspects of rehabilitation.

Sneh Samudaya has resolved 589 cases of compensation for and legal rights of widows. It also helped 208 injured and disabled people to receive compensation. The Sneh centres also serve as legal aid cells; *sneh karmis* (friendship workers) have organized workshops to educate villagers about their rights and issued booklets of legal information. In a major and effective campaign, a cultural troupe of eight lawyers, social activists and women's activists travels in the villages, performing and interacting with people and listening to their complaints. Some common emerging problems are the poor quality of prosthetic limbs that have sometimes injured their users, and instances of corruption in reconstruction, with government-appointed engineers often demanding bribes to issue the "earthquake-safe" certification needed to obtain the next installment of financial assistance.

With the help of Sanjeevani, a reputed organization in the field of mental health, Sneh Samudaya has imparted counselling skills to community-based volunteers in an attempt to address widespread but often neglected psychosocial problems that have surfaced after the disaster. Nearly 6000 children and 700 adults have received psychosocial counselling in the Sneh centres.

The *setus* hold regular meetings with Sneh Samudaya to discuss the information needs of the villages, facilitating the transmission of information related to entitlements, compensation and other needs to the villages and the redressal of people's grievances.

<sup>2</sup> Sneh Samudaya members are ActionAid, Behavioural Science Centre, Haath Milao, Ganatar, Marag, Prayas (Dahod), Prayas (Delhi), Saath and Unnati.

# Disaster Preparedness and Sustainable Livelihoods

Disaster preparedness is a key component of transition from relief to recovery. Without raising public awareness and capacity to face disasters, rehabilitation can remain an unfinished business. At the request of the district collector of Kachch, UNDP has drawn up a disaster-preparedness plan for the district, pooling the expertise and experience of the 1993 earthquake in Latur. The plan, officially launched by the chief minister of Gujarat, needs to be refined with inputs from various stakeholders but serves as a basis for disaster management plans for other districts in the region.

UNDP has also embarked on initiatives in disaster preparedness in partnership with the Ahmedabad-based Disaster Mitigation Institute (DMI). Born during the recurrent drought years of 1987-1989, DMI became an autonomous body in 1995 working on grass-roots projects, policy and advocacy. It seeks to facilitate disaster mitigation and prevention by strengthening the decision-making process and making critical and objective analysis available to the policy makers. Like UNDP, DMI considers disaster as an opportunity that can give rise to alternative approaches to disaster prevention.

Active in India and often in the rest of South Asia, DMI undertakes community based disaster mitigation, humanitarian policy forums/workshops, action research and learning, implementation of disaster-mitigation projects, publication and awareness on strategic issues, performance rating of relief and evaluation of interventions, and coordination of disaster-mitigation activities among CSOs and between the Government and CSOs.

Elected village council (*panchayat*) leaders, salt workers, potters and village artisans, school teachers and women leaders from quake-hit villages attended a community capacity-building cycle launched by DMI on 17 July. The course, supported by UNDP, draws on some of the most up-to-date material from the National Centre for Disaster Management, New Delhi, and the Asian Disaster Preparedness Centre, Bangkok, Thailand. These resources consolidate the training material developed by DMI over the past seven years and include ways of mapping village vulnerability tools, action planning for risk reduction, and preparedness methods. UNDP supported four such cycles and more than 300 village leaders are waiting to attend future cycles. A set of nine posters

designed by DMI/UNDP on how to build earthquake-resistant houses was available before reconstruction started and can also be found in many villages where UNDP-supported shelter projects are underway.

Another programme supported by UNDP consolidates ongoing initiatives of DMI to link children's learning needs with disaster preparedness. Community preparedness is an imperative for safeguarding schools and learning. The DMI schools and disaster preparedness initiative, also launched in July, is aimed at enabling school administrators, teachers, parents and children to jointly plan and prepare for disasters. It has published a brochure on safety measures and piloted a training module. DMI is now building partnerships with Ahmedabad city schools and 30 village schools in the Patan and Surendranagar districts to continue ongoing training, with the module reviewed both by local community and experts.

UNDP is also supporting select issues of DMI's ten-part experience learning series, launched to link policy, practice and research by capturing lessons learned. One of them, *Community Based Disaster Mitigation*, is based on the experiences of involving local communities in disaster mitigation. Another, *The Importance of Women's Role in Disaster Mitigation*, is an account of the experiences of involving women in preparing against natural disasters. Both are published in the regional language, Gujarati. The series also covers the topics of safety features in construction, access to rehabilitation packages, and tools to map village vulnerability. Forthcoming issues will focus on the themes of community preparedness, right to relief, effective rehabilitation and evaluation of humanitarian initiatives.

The publications are targeted at select audiences at the grass-roots and policy level. A recent impact study and a steady flow of letters from the community and government leaders are a testament to their

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**Reducing the vulnerability of the poor to natural disasters is not only a humanitarian agenda but also a development agenda. We have found in our work over a decade that by building shelter and food, water and work security for the vulnerable, we can raise their capacities to manage risks they so frequently face.**

Mihir Bhatt, Honorary Director, Disaster Mitigation Institute

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effectiveness. Each publication reaches at least 1000 key individuals across Gujarat, including 60 villages in Patan and Surendranagar districts. The *setus* in Kachch also have seen a demand for the publications. Some of them are now in their second printing.

In an initiative that could yield many lessons for international organizations working in disaster management, DMI is conducting an evaluation of the earthquake relief efforts in Gujarat for the Disasters Emergency Committee (DEC), a fundraising mechanism set up by broadcasters and CSOs in the U.K. The independent evaluation will enable the DEC secretariat and its members to fulfil three responsibilities: (a) ensure public accountability; (b) demonstrate compliance with the Red Cross Code of Conduct; and (c) learn lessons and improve performance in the future. The evaluation effort, led by Humanitarian Initiative, U.K., will thus become a capacity-building exercise.

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**UNDP was ready to support work in unconventional areas. Repairing dams is not something all donor agencies look to do. The first funds came from UNDP and other donors followed suit.**

Sandeep Virmani, Coordinator, Sahjeevan

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eco-regeneration. This is part of an ecology fund envisaged by the Government of Gujarat, UNDP and Abhiyan that will adopt a multi-pronged strategy to tackle the multiple-disaster environment of Kachch. The pilot phase of the project will examine the data and conduct a feasibility study on the region's key ecological concerns and natural resources. In the first stage, a perspective plan will be drawn up on bio-reserve conservation with a focus on rural livelihoods. The second stage will develop detailed action plans for specific interventions in areas such as water resources, grasslands, and mangrove conservation.

The Abhiyan drought-proofing proposal seeks to reduce people's dependency on the government for

water, fodder and wage support during a drought. In Kachch, a drought comes around every three years, placing an enormous financial and administrative burden on the Government. The money spent has not however mitigated the effects of the drought, given the inherent limitation of drought relief work which only provides manual wage employment for the period of scarcity without making the villages self-sustaining in their water and fodder needs. Dryland agriculture and animal husbandry, two primary livelihoods, are especially vulnerable to drought conditions, increasing the liability of farmers and cattle breeders.

The pilot programme will cover 50 villages and about 5,000 people (ten per cent of those usually engaged in manual relief work), which will demonstrate to other villages in the district a different model of gainful employment in a drought year. These villages will work on self-sustaining solutions for perennial drinking water problems and improve the viability of dryland agriculture and animal husbandry. The activities will raise household income in good rainfall years and reduce liabilities in a subsequent drought year. The pilot programme will also strengthen the watershed movement and set the ground for a reversal in the pattern of scarcity work and people's drought dependency.

The earthquake damaged 19 minor irrigation dams and 468 small water harvesting structures (known locally as check dams). These were primary sources for rural and urban drinking water, agriculture and industries. Their reconstruction became a strategic priority not only to avert the risk of their breaching and causing floods during the imminent monsoon, but also to provide livelihoods that would enable the transition to recovery. Reconstruction was aimed at restoring full irrigation and drinking water benefits. UNDP supported the repairs of 34 dams in partnership with Abhiyan.

In the first category of dams requiring immediate repairs were those that posed structural dangers for the surrounding villages and were the only sources of drinking water in the area. In the second were those that were structurally unstable but did not pose a threat and were in an area where other water sources were available. In the third category were all other damaged but structurally safe dams. By October, 34 dams had been repaired.

## Crafts

**K**achch is renowned for its traditional arts and crafts. Rural Kachchi communities have maintained their distinctive and many-hued traditional dress and a vast range of art and crafts. At least 30 varieties of craft forms flourish here, including leather, metal and stone work, lacquer, pottery, weaving, block-printing, tie-and dye (*bandhani*) and embroidery. Many such art works adorn the mud-and-thatch village homes and courtyards, and women dressed in traditional embroidered costumes dazzling with mirrors and radiant colours are a distinct part of the landscape. Embroidery is taught as a course in schools.

Embroidery, more than other art forms, is a unique and eloquent tradition of Kachch, with at least 16 discernible types practised among the different communities. It is a vital expression of the craft of the Rabaris, for example, a nomadic people who came to Gujarat via Sindh, Rajasthan, Baluchistan and beyond. Rabari women embroider trousseaus, the bride and bridegroom's dresses at weddings, dowry offerings, tapestry for festivals, auspicious *torans* (hung over doorways), children's cradle cloths, as well as everyday apparel and household objects. Motifs of daily life and rituals, of sacred birds, animals and emblems, and symbols of stories and songs are all depicted by thread and needle, mirrors and sequins. Embroidery is thus a historical record of simple and largely illiterate people. It is an expression of creativity, aesthetics and identity, preserving and carrying forward their lives and times, and giving them a language and a voice.

Traditional crafts and artisanship have been a source of pleasure and personal wealth for pastoral communities, whose livelihoods were mainly in animal husbandry. It is only over the last three decades – and even more recently for pastoral people – that traditional crafts have become merchandise. Since the late 1980s, crafts have been developed as a means of supplementary income and a viable drought mitigation strategy, providing income and occupation in fallow years. However, as local villagers seek mass-produced functional wares, professional artisans, such as block printers and *bandhani* workers, are compelled to find new markets. Home-based crafts, such as embroidery, have been turned into commercial crafts.

While sophisticated urban markets have welcomed the concept of traditional crafts, artisans are often unable to cater to these outside markets the way they did to local buyers or their own family members.



Judy Frater

Suf embroiderers examining a sample. Kala Raksha encourages artisans to study and innovate from excellent work.

They are also made to work on designs with no regard to tradition, resulting in deteriorating quality. Poorly motivated government agencies, exploitative middlemen and undiscerning consumers have all sapped the vitality of the market. Dependence on these agents has eroded the self-reliance of traditionally enterprising communities. In particular, low wages for work that is highly skilled and labour-intensive have gradually eroded the ability of artisans to survive on their skills. Craftspeople are increasingly forced to migrate or take up more lucrative occupations such as masonry – a risk heightened by the earthquake and the resultant demand for construction workers. A single mason can earn a little more than \$2 (INR.100) a day, the daily wage for a family of weavers.

The artisans of Kachch suffered huge losses in the earthquake – of craftspeople, equipment, materials and markets – that can be potentially devastating to the survival of ancient and invaluable craft traditions. Despite a focus on the crafts sector as a means of income generation, even among communities that did not previously earn a living from crafts, the emphasis on shelter after the relief phase obscured the need to rebuild these livelihoods, which calls for a more long-term engagement.

At first only 5,000 of the district's estimated 50,000 artisans were organized by CSOs working in the area, and were able to resume production at full capacity within 45 days of the earthquake. A survey of artisans by Abhiyan member organizations in the crafts sector (Shrujan, KMVS and Vivekanand Gramodhyog

Society) revealed a need for work sheds, working capital and marketing outlets. But most CSOs were only distributing toolkits. Moreover, work sheds and toolkits do not address the needs of many artisans – embroiderers, for example, do not work in work sheds. One of the reasons women choose to embroider, despite lower wages, is that they can work at home.

A buyer-seller meet organized in April by Abhiyan with the Central Cottage Industries (CCI) in New Delhi to resuscitate the market resulted in about \$43,500 (INR.2 million) worth of business and 160 new suppliers being registered with CCI. Abhiyan is also working with CCI and the Handloom Export Promotion Corporation for direct purchase from the artisans for nine trade fairs. Its member organizations are initiating patchwork projects in a range of products such as bedspreads, quilts and cushion-covers using 40000 metres of fabric damaged in the earthquake.

UNDP has entered into partnership with Kutch Mahila Vikas Sangathan (KMVS), a member of Abhiyan, and Kala Raksha, two grass-roots organizations working to preserve and propagate Kachch's craft traditions and advance the status of women artisans.

**K**MVS, founded in 1989, currently works with 1200 women artisans organized in producer groups. The women make enough profits to meet the administrative expenses of the organization and are no longer dependent on outside support. The

ultimate goal of KMVS is to set up an artisan collective that independently manages production and decision-making while preserving the art with higher productivity and higher income. To this end, it has set up craft-based producer groups with independent business management responsibilities. Each artisan in these groups must earn

no less than \$6.50-\$28 (INR.300-INR.1000) each month, in keeping with their productivity and skills. Regular training workshops are held to upgrade skills. KMVS would like to see at least 100 artisans develop distinct identities as master craftswomen.

Business management is the cornerstone of KMVS efforts to build livelihoods for women artisans. The producer groups were set up after extensive capacity building and management training and discussion with stakeholders on the responsibilities and benefits of being organized in this manner. There were two in-depth workshops on the subject in the sub-districts of Nakathrana and Pachcham, followed by decentralized training sessions with group members in villages. Members of producer groups receive regular on-the-job training on management information systems and production, and a management cadre in each sub-district is charged with looking after the business activities of producer groups.

A second key aspect of the KMVS methodology is quality control. The emphasis is on niche marketing rather than mass production. KMVS believes that if products are designed so that more value is added to each piece in the same number of working hours that would be spent in a mass product, the artisan can generate a higher return on each product. Over the years, KMVS has identified reliable and skilled artisans and nurtured new talent. It has increased its turnover from about \$48000 to \$61000 (INR.2.2 million to INR.2.8 million) during the period April 2000-March 2001.

Since the earthquake, women artisans are increasingly looking upon their craft as an important source of income. KMVS is training more women to become part of the producer groups. It has initiated activities to upgrade skills and provide inputs for quality and design, set up a gradation process for quality management within each group, identify artisans who have developed the skills to produce marketable crafts and link them with producer groups to create high-value pieces. KMVS has also identified other artisans who need work and have the potential to develop and started giving them orders for wholesale and retail markets and tourist sales. It is strengthening production management systems by intervening directly with a leader to ensure that each artisan is assured a minimum amount of work.

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**Reconstruction is just one aspect of rehabilitation. We are also looking at others, such as education, livelihood, environment and health, by building the capacity of women's groups so that they become agents in rebuilding the lives of their families and communities.**

Alka Jani, Executive Secretary, KMVS

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UNDP support to KMVS covers the important component of building the capacity of those involved in the producer groups. This includes setting up village-level committees and creating a cadre of village leaders to handle craft-related matters, and training adolescent girls and teachers. A radio programme on the developmental issues of rural Kachch, produced with UNDP support, won the reputed Chameli Devi award, and has encouraged KMVS to broadcast another weekly programme on earthquake-related issues. UNDP support to KMVS of \$455,300 (INR.2.1 million) covers construction of 113 model houses as well as programmes under the pro-poor initiative.

**K**ala Raksha, founded in 1993, seeks to preserve and protect traditional arts by setting up community centres and helping artisan cooperatives. It believes that to facilitate a shift to the contemporary market, three broad areas must be addressed and linked: thorough understanding of traditional crafts, contemporary design input, and marketing. Artisans who previously managed all these functions now face the phenomenon of separation of roles of designer, marketer and artisan. Contemporary formal training in design and marketing is given in schools, inaccessible to the traditional artisan. Yet, design intervention is necessary if crafts are to survive, and it is trained designers who increasingly direct the work of artisans. In essence, the artisan has become a labourer. The separation of designer and artisan elevates the status of the former and lowers that of the latter. In terms of cost efficiency, feasibility and survival of craft traditions, however, it is artisans themselves who need to be provided with more direct access to contemporary markets, and enabled to make a more direct input in the design process.

Kala Raksha is active in nine villages in Kachch, working with artisans from four marginalized communities – refugees from Nagar Parkar in Sindh, nomadic Rabaris, Islamic pastoral Jatts, and Meghval leather workers. The organization focuses on three areas: income generation through traditional skills, basic education and preventive health care. It brings together artisans, community members and experts in the fields of art, design and museums to improve skills and maintain the quality of highly developed craft traditions. Kala Raksha encourages its artisan cooperatives to participate in all stages of design, production



KMVS members meeting with a new artisan group after the earthquake.

and marketing, believing that autonomy and self-reliance go hand in hand with income generation and determine the community's comprehensive development.

UNDP support for Kala Raksha covers projects to provide 400 women artisans with working capital to develop skills and diversify their product range. The grants are small but targeted: one million rupees for working capital revolving fund and 300,000 rupees for exhibitions and sales. They are in tune with the Kala Raksha objective to foster a high degree of quality and aesthetics on a small scale rather than generate mass production and risk dilution of standards. Kala Raksha also sees its partnership with UNDP as supporting its goals of enabling women to earn a fair wage in a rural setting and prevent migration, during and outside of a disaster situation, and put them on a route to sustainable development.

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**We believe that people can use their traditions, along with their skills, concepts and aesthetics, to earn a decent living, develop a sense of self-worth and responsibility, and participate in their own comprehensive development.**

Judy Frater, Founder, Kala Raksha

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The documented collection of traditional pieces and library at the Kala Raksha resource centre and museum in Sumrasar village, 23 kilometres north of Bhuj, is available to artisans as a design resource. Design committees from each artisan group use these pieces to create new designs from the old. Master artisans conduct training workshops to improve skills and maintain quality standards. Artisans participate in bazaars outside Kachch in which their products are sold. As far as possible, Kala Raksha fills all staff positions, from managers and coordinators to tailors and helpers, from the immediate communities.

The organization's income-generation initiatives have so far been self-sustaining. Now in its ninth year, Kala Raksha has steadily improved its professional profile, widening its pool of artisans and, more importantly, ensuring that each of them gets as much work as she wants to do. This encourages women artisans to undertake professional work as a source of significant income. It has seen its turnover go up from about \$935 (INR.43000) in 1993 to \$107,000 (INR.4.9 million) in 2001, with a 100 per cent growth rate from 1999 to 2000. Twenty per cent of sales income is from the centre in Sumrasar, and the rest from exhibitions held in metropolitan centres and some foreign buyers. As earthquake relief, Kala Raksha has offered artisans matching grants against wages. The matching grants have succeeded in enthusing the women to produce more and take their work more seriously.

The security of livelihood afforded by the cooperatives has also raised aspirations for quality of life among the artisans and provided the impetus for Kala Raksha's ongoing health and education programmes.

Kala Raksha has been running a health care programme focusing on preventive medicine for over three years. A basic education programme, now two years old, has focused on basic literacy. Artisans are instructed in a direct reading and writing programme and their children are enrolled in tuition classes to improve their performance in school.

At a time when communities are restructuring their homes and lives, social welfare programmes such as these assume critical importance. The earthquake has brought home to all villagers the need for emergency training and trained local assistants to deal with a range of health issues, especially childbirth. Kala Raksha plans to link its health care and education programmes, set up nursery schools/daycare centres

for children under six and an adult education centre, identify and train women in midwifery, and gain active support of male members of artisan families in the social welfare programmes. It also plans to build a rural learning centre, which will house an adult education centre and a design school for artisans.



Judy Frazer

A Rabari girl embroidering a *kanchali* (backless blouse) for her dowry in Vandh village, where Kala Raksha has worked for the past 7 years. Among Kachhi Rabaris, embroidery is still a living tradition.

## ■ UNDP Role in Stakeholder Coordination

The coordination function of UNDP was in addition to but no less important than its active role as an implementing agency. As the agency mandated by the UN system to ensure coordination of the various agencies working in Gujarat, UNDP directed its efforts toward better information flow among them to assess needs and resources, avoid overlap and pinpoint responsibility.

The purpose of the coordination mechanism is to ensure appropriate assessment, identification of activities, design and implementation of project proposals, and monitoring and quality control – all to provide a bridge between relief and development.

A principal contribution was its use of the geographical information system (GIS) to set up a database to map the requirements in the health and education sectors. WHO, the nodal agency for coordination of health sector activities, was able to use the GIS database to map the disease profile in post-quake Gujarat and detect potentially serious outbreaks of disease early (such as one case of cholera, monitored closely). The database has helped to establish a system for disease surveillance, now also being used by the Government, with inputs from doctors and medical facilities in the public as well as private sectors. It has helped to track the emergence of malaria as a serious health concern in the months following the earthquake.

The GIS database proved especially useful in the area of education, where there was widespread duplication in the allocation of sites by government agencies to CSOs. By UNICEF estimates, at least 1000 school-rooms have to be built in each sub-district of 200 villages. Given the large number of CSOs of differing capacities and persuasions entering the scene and the lack of coordination between GSDMA and the department of education, the stage was set for confusion. UNDP used its GIS-based system to identify duplication and re-allocate the sites and helped to bridge the communication gap between United Nations agencies, CSOs and the Government of Gujarat.

In addition, UNDP took on the task, at the request of the Government of Gujarat, of general district-level coordination between government representatives such as the district collector or district development officer and national and international CSOs. For government agencies trying to identify priorities soon after the earthquake struck, the presence of UNDP was a source of logistical and technical support at a critical juncture. Government officials say it was the first time that they had collaborated with UNDP in such a capacity. The experience was trend setting in the constructive approach it engendered between government, donor agencies and local and international CSOs.



Praveen Pardeshi

United Nations organizations collaborated on issues of education, health and sanitation.

UNDP convened regular coordination meetings between these actors with the aim of preventing relief work from becoming disorganized, and provide a multi-sectoral strategic approach to relief, transition to recovery and long-term sustainable recovery. These meetings were a vital component of coordination, involving as they did all players who had a stake in the rehabilitation process. Between February and May, UNDP convened 16 district-level coordination meetings to identify gaps in relief work and build cohesive partnerships between the Government, CSOs and international agencies. Similar meetings at the sub-district level since April have provided an interface between these stakeholders and helped to clarify and influence government policy.

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**UNDP initiatives, though small in comparison to those of the Government, have had an important multiplier effect in strengthening administration, building the capacity of civil society organizations and enabling sustainable livelihoods.**

Labanandu Mansinh, Chief Coordinator Relief Operations, District of Kachch

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The multi-stakeholder meetings were the most vital component of the coordination mechanism, involving as they did all players who had a direct impact on the rehabilitation process. They provided a public space in which to deliberate alternative strategies. These negotiations on policy issues formed the basis for the Government's policy framework. Even after rehabilitation packages were announced, these meetings were still the forums for healthy debate on their merits and demerits.

Several key aspects of the shelter strategy were resolved at these meetings. For example, the Government's policy initially required CSOs to build houses in three different sizes, depending on the size of the houses before the earthquake. At the suggestion of UNDP, Abhiyan, Catholic Relief Services and other CSOs, the Government changed the rehabilitation package to allow CSOs to rebuild houses of equal size for each family irrespective of the size of their destroyed houses. To clarify the question of monetary support provided by CSOs, a government resolution was amended so that the Government would cover half the total cost of reconstruction, provided the CSO contributed about \$970 (INR.45000). The CSO input thus added value to the Government package.

The crucial issue of relocation versus *in-situ* reconstruction was resolved in these meetings. Advocacy by the shelter coordination forum ensured that *in situ* reconstruction would be the norm in 223 villages in accordance with the majority decision of their village councils, and not relocation, as first announced by the Government.

## ■ Lessons Learned

**F**our factors have been key to the success of the Gujarat transition-recovery programme in transforming crisis into opportunities for development. In summary, they are:

- Selection of appropriate partners;
- Systemic integration of capacity-building elements;
- Incorporation of disaster-mitigation and vulnerability-reduction initiatives into all activities;
- Careful selection of staff (through the NUNV programme);
- Propagation of the *setu* concept for outreach and dissemination of information.

Several aspects of UNDP engagement offer lessons and directions for the future. Broadly, these are:

**Raise awareness:** The encouraging results of UNDP intervention in Gujarat underline the need to raise awareness of the potential of transition recovery to increase government commitment to support it. Awareness of the concept is still extremely low among governments, multilateral financial institutions, donors and UNDP itself.

The joint transition action plan addresses to some extent the issue of the need for greater clarification of the role of UNDP in the transition phase within the wider United Nations family at headquarters and in the field. United Nations and international agencies working in Gujarat, after a meeting convened by UNDP on 22 June, have prepared sectoral transition strategies and exit indicators for the current situation as well as for future eventualities. With transition between relief and recovery flagged as the most vulnerable timeline in a post-disaster situation, activities imple-

mented during this phase will have an impact on long-term recovery processes. These transition strategies have since been refined with comments from the Government of Gujarat.

**Target resources:** The United Nations system does not yet have a mechanism to mobilize resources for transition recovery. Several ad-hoc efforts have produced expectedly uneven results. Resources mobilized for crisis situations need to be readily available for transition recovery, along with emergency assistance or long-term reconstruction. There is particularly a need for more resources in situations such as in Gujarat for UNDP to properly discharge a coordination function in addition to an implementing role.

**Build strategic partnerships:** The Gujarat experience shows that successful transition recovery processes turn on effective partnerships and the development of coordination mechanisms at different levels. A synergistic alliance with a community-based civil society organization with a proven track record and constituency is especially critical at the local level. It is

equally important for UNDP to manage the partnership with CSOs with discretion, so as not to generate a backlash for the partner concerned or overwhelm it. These partnerships need to be backed nationally and globally with better interfaces with existing inter-agency mechanisms to coordinate the emergency phase and with multilateral financial institutions, which support long term reconstruction. At present, inter-agency disaster management teams have a clear mandate for coordinating emergency management, but not necessarily for transition recovery. Partnerships with international CSOs also need to be built.



Praveen Pardeshi

NUNV engineers worked closely with the Abhiyan shelter cell to train villagers in seismically safe reconstruction.

**Build country capacity:** UNDP/ERD has supported the effort in India by providing additional short-term human resources. In addition, the India project was able to draw on the availability of people with a range of special skills through the NUNV programme. But UNDP country offices need to address the lack of human resources to meet the multitude of demands produced by a major crisis. While the UNDP Executive Board has defined crisis and post-conflict recovery as a core area of the work of the organization, country offices and headquarters units have yet to develop the capacities, programming mechanisms and procedures to facilitate transition-recovery processes. There is also a need to put in place strong middle management in field offices, as in Bhuj, that can serve as an effective bridge between thinkers and conceptual experts and field workers.

**Address the gender dimension:** While all development partners recognize the importance of community-driven approaches to reconstruction in Gujarat, systematic efforts are conspicuously lacking to involve women centrally in reconstruction and subsequent development. Women in some villages have defied traditional roles by taking up masonry work. Women-headed households and widows have been singled out for special and priority interventions by some CSOs. Women artisans have received assistance to build working capital, regain materials and recoup markets.

While these are important initiatives, they do not compensate for the lack of formal recognition and support for a policy role for community-based women's groups in rehabilitation and post-disaster programming. The importance of such involvement and empowerment of women cannot be overstated. Experience has shown that the participation of women in development planning – whether in housing and infrastructure, restoring livelihoods and essential services – benefits families and entire communities.

Government agencies and CSOs acknowledge the lack of space for women in post-quake decision-making and point to several causal factors. Women in Gujarat, particularly in Kachch and rural areas, are confined by feudal family and community structures. In parts of the state, women's literacy is as low as six per cent. Many CSOs in the state reflect the prevalent culture in that they have a patriarchal orientation; even within the Abhiyan network, a gender perspective is not intrinsic to all members. A gender dimension calls for perspectives as well as skills; it cannot be brought about ideologically, because it may encounter resistance. There has to be a functional orientation, through the collection of gender-disaggregated data, gender training, for example, as gradual steps toward the distant goal of truly internalizing a gender perspective in development. United Nations agencies working in partnership with other development actors have a key responsibility in making this happen.

**Synchronize methodologies:** The United Nations system must on a priority basis develop a set of methodologies, procedures and mechanisms to assess transition recovery needs and formulate transition recovery strategies and programmes. It has so far developed procedures for assessment, coordination and information management only in the emergency phase. Transition recovery methodologies are essential in light of the fact that other multilateral institutions apply existing methodologies and procedures to assess long-term reconstruction needs.

## Resources

*Gujarat Transition Recovery Team: An Update (Parts I and II)*, UNDP September 2001.

*Coming Together: A Document on the Post-Earthquake Rehabilitation Efforts by Various Organizations Working in Kutch*, UNDP/Abhiyan September 2001.

*From Relief to Rehabilitation: The Contribution of the World Health Organization in Alleviating the Impact of the Gujarat Earthquake*, WHO Gujarat Earthquake Relief Mission, Bhuj, August 2001.

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<http://www.undpquakerehab.org>

UNICEF  
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WHO  
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Gujarat State Disaster Management Authority  
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ActionAid  
<http://www.actionaid.org>

Catholic Relief Services  
<http://www.catholicrelief.org/emergency/india/india.cfm>

Kutch Nav Nirman Abhiyan  
E-mail: [abhiyanad1@sancharnet.in](mailto:abhiyanad1@sancharnet.in)

Oxfam India  
<http://www.oxfamindia.org>

Save the Children  
<http://www.savethechildren.net>

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