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Wind Tunnel Model for Cyclone Safe Construction

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COMMUNITY WIND TUNNEL EXPERIMENT, PORBANDAR 2004



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SEEDS

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Message

In January 2004 SEEDS celebrated its tenth birthday. All team members gathered in Gujarat to celebrate the occasion, to look back and review the course charted, and to plan directions in which to move ahead.

The last ten years have witnessed a process of growth in activities and evolution in thought. What started as a college based interest group delving in research on environment and habitat issues, went on to become a full time professional organisation taking up projects of environmental planning, research and training.

The first three years of SEEDS were spent working with national research and training organisations such as the Human Settlements Management Institute of the Housing and Urban Development Corporation, and the Indian Institute of Public Administration. Most of the projects carried out for these organisations dealt with field research to feed policy level training. Projects covered dam affected communities in remote Madhya Pradesh, workers in hazardous industrial estates in Delhi and Haryana, areas to be influenced by future in industries in Gwalior, gas victims rehoused in Bhopal and their likes.

By 1996 the interest had got more focused on extreme environmental situations, and engagement with the National Centre for Disaster Management brought us closer to the disaster field. A self initiated study on 'Delhi at Risk' opened the channels with international universities and research centres, leading to the first internationally funded project on reducing urban risk. International donor agencies were also tapped for supporting community action planning initiatives in different states of north India. Most projects at this stage were focused on community action, and most activities had direct engagement with community groups. Sporadically SEEDS also launched relief missions and needs assessment missions in the aftermath of major disasters such as the Gujarat cyclone, Chamoli earthquake and Orissa supercyclone.

The Gujarat earthquake of 2001 was a major turning point when SEEDS got fully involved in relief and rehabilitation activities. Support was mobilised from a wide range of donor agencies, NGOs, academic institutions, governments and individuals to create a model rehabilitation project in Patan. The success of the project, wherein people built their own homes their own ways with their own designs and measured inputs from SEEDS to ensure earthquake resistance, paved the way for sustained disaster management programmes not only in Gujarat, but also extending to other vulnerable states in the hill and coastal regions of the country.

2003 was a second turning point, when SEEDS went international. At the invitation of the United Nations Assistance Mission in Afghanistan, SEEDS took up the task of preparing Afghanistan's National Disaster Management Plan. Work also started on conceptualising a global open university for risk education, an ambitious project with a long term vision.

This report presents major highlights of the year 2003-04, but we stay conscious of what all has led to the happenings of this year, and where we would like to head beyond it.

Vision and Mission

■ Vision

Resilient Communities

■ Mission

Equipping the most vulnerable with appropriate tools and technologies, sharing knowledge and skills, and promoting linkages among stakeholders to prevent life loss and suffering

■ Guiding Principles

- It will be our endeavour to
- Always be prompt to respond to the needs of the community
- Build trust and mutual respect in society
- Identify and reach out to the most vulnerable
- Facilitate participation in decision making at all levels
- Adapt to local and cultural environment
- Be non-discriminatory in our approach
- Focus on individuals needs
- Promote excellence in our work
- Locate and promote local champions



1994-2004

Highlights of last ten years' projects

1994

- An Environmental Profile of Wazirpur Industrial Area, Delhi, India (HSMI-HUDCO. 1994)

1995

- Panchayati Raj, Women & Environment, Haryana, India (IIPA-GoI. 1995)
- Resettlement & Rehabilitation of Project Affected People in Irrigation Projects, District Sehore, and District Bhopal, Madhya Pradesh (IIPA-World Bank. 1995)
- Environmental Assessment of Industrial Townships, Gurgaon (Haryana) and Gwalior (Madhya Pradesh), India (HSMI- HUDCO. 1995)
- Resource Based Rural Development Model, Village Rohillapur, Uttar Pradesh, India (SEEDS. 1995)

1996

- Women & Environment in the Hill Districts, Uttar Pradesh, India (IIPA-GoI. 1996)
- Delhi at Risk (SEEDS. 1996)
- National Environmental Awareness Campaign (MoEF, GOI. 1996 - 1998)

1997

- Case Study on Ghaziabad city, Uttar Pradesh as part of the Programme Implementation and Management of Human Settlements (HSMI-IHS. 1997)
- Certificate Course Material on Disaster Management (IGNOU. 1997)

1998

- Gujarat Cyclone: Damage Profile and Relief Needs Assessment (SEEDS. 1998)
- Development Plan for Gwalior West, Madhya Pradesh, India (DKS. 1998)

1999

- Strengthening Disaster Management Capacity in India (UNDP. 1999)
- Documentation on Community based Hazard Mitigation in Coastal Andhra Pradesh (CASA. 1999)
- Chamoli Earthquake: Preliminary Assessment (SEEDS. 1999)
- India Country Review during the International Decade for Natural Disaster Reduction 1990-2000 (NCDM. 1999)
- Method for Integrating Risk Reduction into Urban Planning, Delhi & Ahmedabad, India (DFID-OCDS-NCDM. 1999)



Action Research: Delhi fire safety



Disaster Relief: Gujarat, Orissa



Needs Assessment: Chamoli



Rehabilitation: Gujarat

- Manual for Natural Disaster Management (NCDM. 1999)
- Orissa Cyclone Relief (SEEDS. 1999)
- Citizen's Participation in Urban Development Planning (FES, NFI. 1999-2003)
 - (i) Rohtak, Haryana
 - (ii) Bikaner, Rajasthan
 - (iii) Ferozabad, Uttar Pradesh

2000

- Field Operators' Guide for Emergency Management (CASA. 2000)
- Community Fire Safety Program (DFID-OBU. 2000)
- Research on Capacity Building of NGOs for Disaster Management (HPC-GoI. 2000)
- Research on Relief Standards in Disaster Management (HPC- GoI. 2000)
- Research on Women, Children, Aged and Challenged in Disasters (HPC-GoI. 2000)
- Istanbul+5: Country Research (CARE. 2000)
- Participatory Micro Planning in Delhi Slums (CARE. 2000)
- Orissa Cyclone Process Documentation (NCDM. 2000)
- Global Earthquake Safety Initiative, (UNCRD-GHI. 2000-2001)

2001

- Research for National Disaster Management Plan of India (HPC-GoI. 2001)
- The Private Sector and Natural Disaster Reduction (BGHRC- UCL. 2001)
- Urban Toolkit for Participatory Processes (CARE. 2001)
- Livelihood Mapping Mission in Delhi Slums (CARE. 2001)
- Gujarat Earthquake Relief (SEEDS. 2001)
- Gujarat Recovery and Rehabilitation Programme: Patanka Navjivan Yojana (Multiple Supporters. 2001-2003)

2002

- Gujarat Earthquake Safety Initiative (VIDE-GHI. 2002)
- Parvat Yatra: Hill Safety Campaign (NGO Kobe-CA. 2002)

2003

- Tat Yatra: Coastal Safety Campaign (CA. 2003)
- Indian Earthquake Safety Initiative (USAID-GHI. 2003)
- National Disaster Management Plan, Afghanistan (UNAMA. 2003)
- Sustainability of Community Based Disaster Management (GSDMA. 2003)

The tenth anniversary was an opportunity to look back and review our progress, and look ahead to chart a future course. The SEEDS team gathered in Gujarat to do this.



Retrofitting: Himachal



Building Safety Awareness: Uttaranchal



School Safety: Shimla



Mason Training : Gujarat

During 2003-04

1. Community Based Disaster Management (CBDM)

■ Community Awareness Workshop on Safe Construction, Kangra

A community workshop on safe construction practices, with a focus on earthquake resistant retrofitting of hill buildings, was organised in Kangra, Himachal Pradesh, on 5 September 2003. The focus of the workshop was on community initiative in taking up disaster management issues at individual level. The workshop included an exhibition and poster campaign as part of the activities towards raising awareness on vulnerability issues. It focussed on the importance of trained masons and the special features to be taken into consideration for safe practices in any type of construction.

The workshop aimed at reaching a large and varied audience with participation from Panchayat members, Mahila Mandal members, government officials, masons, NGOs, and CBOs based in Himachal Pradesh. More than 120 people took part and came up with different queries regarding safety of their houses and buildings.

The workshop was organised with a retrofitted building in its backdrop, which was used as a demonstration model. A mason training manual prepared by SEEDS was tested through this process. Based on the feedback, it was drastically redesigned into a newsletter series, and is currently under print.



■ Community Fair under Sustainable Community Initiative, Porbandar

SEEDS is part of a six nation study initiated by United Nations Centre for Regional Development (UNCRD) for identifying factors for successful community mitigation and management practices in Disaster Management. In Gujarat, SEEDS is currently implementing the 'Sustainable Community Initiative' on the same theme with support from the Gujarat State Disaster Management Authority (GSDMA).



It has been 99 years since the Great Kangra Earthquake that devastated Himachal Pradesh. Time to act.



CBDM has been a central theme for SEEDS over the years. It entails involvement of communities in appraisals, action planning, implementation, upscaling and monitoring.

The Sustainable Community Initiative project is aimed at disaster vulnerable communities in 20 villages in Ranavav Taluka, Porbandar District of Coastal Gujarat. As a special effort to build rapport with the different stakeholders like the community people, government at local, taluka and district levels, NGOs, and corporate citizens and to bring them on a common platform and learn from their experiences, a Community Fair was organised at Ranavav Police Parade ground on 25 September 2003, by SEEDS and FES and supported by GSDMA, UNCRD and NGO-Kobe.

Different stakeholders put up stalls, taking into consideration the needs of the community like housing, livelihood, education, health, environment, legal services, and social welfare etc.

As a result of effective coordination between the various stakeholders, around 21 stalls were put up and more than 400 people visited the fair from different villages of Ranavav Taluka. The Collectorate, the DRDA, District Panchayat, Nagar Palika Ranavav, GEB Ranavav and the Police Department contributed in the organisation of the Mela.



■ Vulnerability Survey in Twenty Three Villages, Ranavav

As part of the activities of the Sustainable Community Initiative, the SEEDS team carried out a vulnerability survey in Ranavav Taluka of Porbandar District in Gujarat during August 2003. Contacts were established with the district administration and then the village surveys were conducted using the Village Selection Flashcards. The main objectives of the survey were to:

- Establish the disaster vulnerability of villages and obtain other basic information relevant for project planning
- Establish contacts with the local administration
- Find a suitable base camp for SEEDS



Though we had entered Gujarat for relief work, the initiative has, in the past years, moved into a preparedness and mitigation mode. Besides addressing issues of structural and non-structural vulnerability in the context of earthquakes and cyclones, the programme is also working to reduce water vulnerability.



■ Water Resources Survey in Twenty Five Villages, Ranavav

Twenty five villages in Ranavav taluka were surveyed in August 2003 to identify their status of water resources and to plan activities on water conservation. The overall goal was to build a standard model for a drought resistant community equipped with safe and sustainable livelihood, which could serve its own development needs and also serve as a model for other villages. Ranavav area was new for SEEDS, so the first step was taken as a research and survey task regarding water conservation. Three primary techniques emerged for water conservation in the area: well recharge system, farm pond and small or big Nala plug. As the area is made of unconfined aquifer, well recharge system is best suited. Based on this analysis, Thoyana village has been selected for implementation of water harvesting activities.



■ Tree Plantation Programme with Children in Digvijaygadh, Hanumangadh and Mahira

Children's day was celebrated by organising a Tree Plantation programme around the school building at Digvijaygadh on 14 November 2003. The children sang folk song glorifying 'Saraswati' (Goddess of knowledge) composed by them. The children also spoke on the celebration of the Children's Day and about Chacha Nehru (the first Prime Minister of India). They discussed the essence of growing trees and protecting their environment. The children participated enthusiastically in the programme and even did Shram Dan (voluntary labour offerings). Ten trees were planted and 25 were distributed. Similarly at Hanumangadh also, the officials and the village people planted trees outside the school premises and some were given to the Gram Panchayat for distribution. A similar programme was performed at Mahira village. The objective of these initiatives was to build a rapport with the children and the people, to make them aware about the programme and utilise this opportunity to invoke public participation. The forest department was helpful in mobilising the plants necessary for the programme.



■ Community Meetings, Ranavav

Once the villages were finalised for the Sustainable Community Initiative in Gujarat, interactions were started with the communities for field activities. The first of these meetings were conducted during August-November 2003 at villages Aniali, Khambala, Jarera Nes and Digvijaygadh and Khijdad. These meetings were used to formally introduce SEEDS and the Sustainable Community Initiative. These were also used to gain an insight in to the status of the various sectors like housing, livelihood, health, education, community infrastructure, and legal services and the problems and needs of the people.

Along with technical studies, the team also informally visited the villages and talked with the people and gained insights.



The CBDM programme covers a range of field based activities as well as knowledge and research interventions. The prime directive is to increase the capacity of local communities and to make them disaster resilient.

■ Knowledge and Research Project for Safer Cities

The KAR (Knowledge and Research) project on Mainstreaming Mitigation to Reduce Urban Poverty is a collaboration between CARE, DMI, YUVA, SEEDS, Nepal Red Cross Society and others. The Department for International Development (DFID) of the Government of UK funded the project.

The project, also called the KAR Sahyog (partnership) project, was carried out in three case cities: Mumbai and Ahmedabad in India and Jaleswor in Nepal. It worked on the established processes of Community Action Planning, and took them a step further to incorporate a rights based approach focusing in particular on the Right to Safety. A number of documents were produced during the course of the project.



SEEDS came out with a research publication containing six case studies, three based on experiences from project cities, and three from outside the project. The purpose of the studies is to illustrate the concepts of the Right to Safety in the perspective of making cities safer. The studies analyse six of the supporting rights that lead us to the right to Safety. A website www.urbanriskforum.net was designed as the project website, providing project reports and background information as well as other documents and links on the subject of urban risk reduction.



■ Indian Earthquake Safety Initiative - Survey of Twenty Cities

IndESI, Indian Earthquake Safety Initiative, was launched in 2001. It aimed to strengthen local capacity to prepare for and respond to future disasters by assessing the earthquake risk, response preparedness, and most effective mitigation options for twenty of India's most important and vulnerable cities and launching mitigation activities in five cities. The Indian Earthquake Safety Initiative was taken up by a partnership of global organizations, including SEEDS, Geo Hazards International (GHI) and United Nations Centre for Regional Development (UNCRD).

As part of the activities, initial surveys were completed successfully in the cities during April-June 2003. The motive of these visits were to make people sit up and notice how vulnerable their city is, why their city is chosen for IndESI and how they can initiate the efforts to decrease this vulnerability by active participation in IndESI.

The cities to which visits were made were Agartala, Ahmedabad, Aizawl, Chandigarh, Chennai, Dehradun, Delhi, Gangtok, Guwahati, Imphal, Itanagar, Kohima, Kolkata, Lucknow, Mumbai, Panjim, Patna, Port Blair, Shillong, and Shimla. A total of 206 people from 163 organisations met during these visits. A city digest was prepared on the twenty cities with basic information on the seismicity, climate, population etc. A website www.indesi.net was also launched under the project. It gives vulnerability information on project cities, and has a section wherein a user can get to know the earthquake risk at its location anywhere in India.

Due to change in requirements of project donors, the project is currently being narrowed down to intensify the approach and impact of the initiative.



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WATER MAPPING AT DELWARA



■ Feasibility Study for Fringe Town Development, Delwara

Delwara is a semi-urbanised village and is about 28 kms from Udaipur in the District of Rajsamand, Rajasthan. The village is now at the brink of losing its individual identity of once being a historically prominent place. Along with this, the traditional livelihood options and

age-old professions are vanishing leading to increased unemployment. The village also has high illiteracy rates and poor civic amenities.

The National Foundation for India (NFI) invited SEEDS to carry out a study to identify the core issues that would prove helpful in overall development of the place. The objective was to assess the degradation of the village on an urban fringe, and explore various possibilities of developing Delwara as a model settlement with good quality of life, that can be followed by other similar peri-urban settlements.

A preliminary assessment of the situation in Delwara focused at identifying the core issues and arriving at their prioritisation. The assessment process looked at previous fieldwork and studies carried out on this or related themes. It also tried to gather insights on problem issues and aspirations from citizens themselves. The major issues emerging from the study were water, livelihood, sanitation, health, education and heritage.



The CBDM programme is also reaching out and touching issues of resource management for risk reduction.

Maximum casualties in disasters happen due to poorly constructed buildings and infrastructure. Appropriate siting, materials and technology can reduce risk and raise comfort levels.

2. Building safety

■ Retrofitting of Community Centres, Kangra

The SEEDS technical team visited villages in Kangra to identify and assess community buildings that could be retrofitted as demonstration units. Kangra had witnessed a devastating earthquake in 1905, and the attempt was to work towards an awareness campaign on the earthquake centenary. Buildings of a women's centres in two villages were selected upon after assessment of the sites and dialogue with the community and local NGOs.

SEEDS masons and engineers from Gujarat carried out the retrofitting works during July-August 2003. The masons, themselves were earthquake affected farmers from Gujarat who had been trained as special masons after the earthquake. They were very convincing to the local masons and residents. The retrofitting exercise provided a base for training local engineers and masons. The District Administration nominated government engineers for the trainings held on site.

Most people are not aware of retrofitting, an inexpensive way of making existing buildings safer.



The intervention also encouraged villagers to adopt safe earthquake resistant construction practices in their respective dwellings. A village resident, whose house was under construction at the time, immediately incorporated the earthquake resistant features demonstrated at the site. Group meetings, exhibitions, distribution of information material etc. was also carried out along with the retrofitting exercise.

■ Retrofitting of Houses, Santalpur

After successful completion of Patanka Navjivan Yojna (PNY), under which SEEDS had helped about two hundred local families reconstruct their houses in Patan, Gujarat, the District Administration invited SEEDS for providing technical support to retrofit houses at other places in the region.



The retrofitting project was developed in response to observations that many houses in rural area of Patan repaired by the residents after the earthquake were only cosmetically repaired, and thereafter not retrofitted to be seismically safe in the event of another earthquake. Under this project, SEEDS retrofitted about 120 houses from 20 earthquake hit villages during April-August 2003.



■ Construction under Earthquake Recovery Initiative, Patanka

In the final phase of the earthquake recovery work in Patan, Gujarat, SEEDS constructed two residential buildings for teachers and one 'bhunga' (type of traditional structures found in and around Kutch) for primary school children, during July-Aug 2003. The reason for providing these facilities was that teachers in the schools

were from faraway places and in the absence of accommodation near schools, their attendance suffered. After holding meetings with villagers, SEEDS decided to build residential buildings for teachers. The Bhunga was aimed at demonstrating the appropriateness of local wisdom to the children. The construction was carried out by a group of masons from the local area who were trained in earthquake resistant construction by SEEDS during the rehabilitation phase. Construction of fencing and planting of trees in the premises of residential units was done with the help of villagers after completion of the construction work.



The building safety initiative, which originated from the Gujarat earthquake rehabilitation programme, went on to address awareness and training needs in Himachal Pradesh in the Himalayan region. The local people paid serious attention to the words of the Gujarati masons and community workers, and learnt much from their experiences.

Frontline workers, including community volunteers, NGO field workers and government field staff, have no access to affordable risk education. The Open Learning initiative tried to provide this access to the remotest worker.

3. Open Learning

■ Training of Masons, Kangra

The process of retrofitting community buildings in Kangra under the community based disaster management activity provided an opportunity to sensitise local residents and train local masons in earthquake resistance of buildings. The two buildings were used as demonstration buildings to illustrate the concepts of earthquake resistant construction and retrofitting. SEEDS masons and engineers from Gujarat carried out the retrofitting and conducted the training workshops. The masons, themselves earthquake affected farmers from Gujarat who had trained as special masons after the earthquake, were very convincing to the local masons and residents. Fifteen masons and around twenty local women attended a masons' demonstration session held at Shantala in August 2003.



■ Training of Government Engineers, Kangra

The process also involved meetings with government bodies to discuss and refine the policies to help and encourage people for making a safer environment. It also concentrated on understanding the present status of the technical people involved in the process of construction like civil engineers and builders. The District Administration nominated government engineers for the trainings held on site. A training workshop was organised for the engineers where the SEEDS trainer engineers conducted sessions demonstrating earthquake resistant features that were added to the women's community centre at Shantala through retrofitting. About twenty engineers attended this training event held in August 2003.



Local masons form the backbone of the house construction industry in India, which operates mainly in the informal sector. There are no avenues for formal training for these masons. Yet, unless they are trained, even the best of structural designs will fail to deliver safe homes, schools and work places.



■ Local Governance Training Workshop, Porbandar

A training workshop was organised for Talatis (village level government representatives) at Porbandar, Gujarat, in February 2004. The Gujarat Government nominated participants for the workshop. The focus was on community-based disaster management and government-community links for the same. A draft training manual for local government personnel, developed by SEEDS, was tested through this process and is currently under production design. Twenty-five Talatis participated in this event and were also awarded certificates by the District and State Governments and SEEDS.



Knowledge on locally appropriate and cost effective risk reduction measures exists in our universities and research centres. However, it fails to reach the ground where it can make the difference between life and death. The Open University is envisioned as a bridge between universities and NGOs to enable a two way flow of information.

■ Open University Planning Meet, Delhi

A planning meeting was organised in Delhi during 10-12 March 2004, with representatives from the national and international centres of excellence. It aimed at formulating plan of action for establishing a global open university on disaster risk reduction. This meeting had representatives from the University of Engineering (Peru), MIT (USA), Oxford Brookes University (UK), CARE International (UK), African Centre for Disaster Studies (S. Africa), Nepal Society for Earthquake Technology (Nepal), School of Planning and Architecture (India), UNDP (India), CARE-India, and UNCRD (Japan) besides representatives of SEEDS and Christian Aid.



The meeting ended with a strong unanimous agreement on a proposal to jointly launch the Global Open University for Disaster Risk Education. It was felt that the group, with representation from very credible centres of excellence in the five continents, is very well placed to establish such an initiative. It was decided to have a soft launch in the form of an open learning forum, which would later be up-scaled to a university. It was named the Global Open Learning Forum for Risk Education (GOLFRE). A work plan was charted out, under which a foundation course was to be prepared in the subsequent months and the idea was to be propagated at the UN World Conference on Disaster Reduction to be held in Japan in January 2005.



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A portable wind tunnel model has been developed by SEEDS to demonstrate the effect of cyclones on rural houses, and the benefits of retrofitting to reduce this impact.

The wind tunnel is of open circuit type, which means that the air that has entered through the fan on one end will be diffused from the other end.

House models, which are to be tested in the wind tunnel, are scaled down to one tenth the scale of actual buildings. Two models are prepared. One model is "unsafe" and is built with regular features. The other one is a "safe" model, which is built with cyclone resistant features. The material used in the construction is the same as is used in typical local construction in the area. First, the unsafe house model is kept in the tunnel and the fan is put on for continuous wind flow. The roof of the building, which does not have proper joints, flies away and falls about 10 feet away from the wind tunnel model. Then some minor cracks appear near the doors and windows. After sustained wind blow it is observed that major cracks develop at plinth level and around the openings. After this, the safe house model with cyclone resisting features is kept in the wind tunnel and the fan is turned on. This time the roof stays in place and no structural damage is observed in spite of sustained wind blow.



Graphic illustrations have a great impact on the local homeowners as well as masons. The wind tunnel demonstrates how houses can be made cyclone resistant by incorporating a few low cost features.

The wind tunnel model helps local residents, masons and officials easily understand the difference between the prevalent house types and the cyclone resistant ones, and the advantages of low cost retrofitting. The wind tunnel was tested during the Talati training workshop, and has subsequently been further refined.

The open learning programme takes a hands-on approach. It is based on a belief that learning should be through doing and experiencing. The distance learning initiative too has been conceptualised on the concept of case teaching, based on case studies of appropriate situations.

■ Knowledge Bank

The Knowledge Bank is a collection of case studies from the field, which provide important lessons on disaster risk reduction through success and failure stories. Small initiatives in remote places, whether taken by governments or developmental agencies, or voluntary groups, or communities themselves, provide the most practical inputs for any lesson learning exercise. Such stories are a good medium to reach out to field workers and grassroot level stakeholders who have lower educational qualifications and less interest in going through theoretical papers and jargons.

The Knowledge Bank is designed to support the GOLFRE initiative by creating the basic modules for distance learning courses. The larger aim is to bridge the existing gap between knowledge and practice. The process consists of the learning from the field practices, and feeding the lessons back to the field practice in a

reflective manner. Also, it strives to learn from the practice and influence strategies and policies towards being more community friendly. For this, the same case studies may be used to prepare advocacy material.



A repository of over twenty cases has been compiled in a format that follows the structure of a foundation course on community based disaster management. The process of putting the studies together included structuring of course contents, identifying and collecting basic information on the cases, correlating the case studies with the course modules, identifying the key lessons learnt, analysing the case studies and compiling sources for further reading.

The water harvesting model has convinced people to invest in adopting water harvesting features in their farms.



International cooperation has helped improve the quality of our programmes, and has helped us disseminate our lessons for the benefit of others. Conferences, workshops and volunteer programmes have constituted this programme.

4. International Cooperation

■ National Disaster Management Plan, Afghanistan

SEEDS was invited by the United Nations Assistance Mission in Afghanistan (UNAMA) to prepare the National Disaster Management Plan (NDMP) for the Government of Afghanistan. Desktop research, meetings with stakeholders in Afghanistan and field visits to disaster prone communities in different parts of Afghanistan were carried out, based on which the NDMP was prepared. The NDMP focuses on streamlining disaster management systems at the national level through reorganisation of the Afghan Department for Disaster Preparedness and laying down of operating procedures for major stakeholders at national, province, district and local levels.

The plan primarily focuses at national level management systems, and outlines the province level organisational systems required to operationalise a national plan. It is proposed to take up the preparation of province and district plans as a follow up activity in 2004-05.

Sensitization and training of personnel from stakeholder departments and organisations also forms part of the project.

■ World Social Forum, Mumbai

SEEDS participated in the World Social Forum - IV that was held at Mumbai from 16th to 21st January, 2004. This was an open platform for reflective thinking, democratic debate of ideas, free exchange of experiences by groups and movements of civil society that are opposed to domination of the world by capitalism and imperialism.

Anshu Sharma, Program Director at SEEDS, gave a talk at a seminar on Comfort for Few

Disaster for Many organised by CASA at the forum. The talk was at the invitation from the organizers, and focused on the rights based approach to disaster management, which would ensure safety for all.

■ International Workshop on Building Governance in Cities, Zambia

SEEDS participated in a three day workshop organised by CARE in Lusaka, Zambia, 29-31 March 2004. The workshop, titled Building Governance in Cities: learning from livelihoods-based projects, shared experiences of urban livelihoods based programmes in Southern Africa and South Asia, in particular focusing on approaches for improving governance. About fifty participants from CARE offices, universities, donor institutions, NGOs and consultancies attended the workshop. Anshu Sharma represented SEEDS at the workshop, and made a presentation on Risk Reduction in India, with a focus on the rights based approach towards making cities safer.

■ Asia Pacific Forum for Environment & Development Meeting, Sri Lanka

In March 2004, Manu Gupta, Program Director at SEEDS, who participated in the APFED (Asia Pacific Forum for Environment & Development) Multi-Stake holder Meeting at Colombo, Sri Lanka. The objective of the meeting was to discuss and review the preliminary draft of the APFED Document. The APFED is a network of eminent persons of the Asia-Pacific region chaired by the Former Prime Minister of Japan, Mr. Ryutaro Hashimoto.

■ Friedrich Ebert Stiftung Fellows

The Friedrich Ebert Foundation organised a programme for university level students from Germany. They invited students with interest in development work in India. SEEDS hosted three interns, Ms. Anjali Sinha, Ms. Daniela Richter and Mr. Marco Weber for two weeks during September 2003. The interns were involved in conducting community meetings and focus group discussions in villages of Gujarat under the sustainable community initiative.

■ American India Foundation Fellow

John Edwards, a practicing architect from New York, spent a year from September 2002 to June 2003 with SEEDS as a volunteer on fellowship from the American India Foundation. Most of his time was spent working with the Delhi Office, though he travelled out to project locations in Himachal Pradesh, Gujarat and the North East and carried out field studies and interactions. He made valuable inputs to the ongoing Parvat Yatra, Indesi and PNY programmes. He looked at the structural and design components of the field activities under these programmes as well as the publication design activities carried out from the Delhi office. John established a very close relationship with the SEEDS team and continues to be in touch since his return to New York.

■ AIESEC Fellow

AIESEC is an international platform for young people to discover and develop their potential so as to have a positive impact on society. SEEDS hosted Birgit Fischel through AIESEC, and she was in Gujarat from June to September 2003. She was involved in survey work for selection of villages for project interventions. She travelled

to Mandavi, Vanthli, Dhangdra and Porbandar for survey work. Apart from this, she also developed indicators for assessing vulnerability of villages.

■ Primer for Disaster Risk Mitigation in Asia, ADPC Thailand

Manu Gupta was invited to be part of the Advisory Group on the 'Primer for Disaster Risk Mitigation in Asia' being prepared by Asian Disaster Preparedness Centre (ADPC). An advisory group meeting was held on August 2003, in Bangkok to develop the outline for the primer.

■ Asian Disaster Reduction and Response Network (ADRRN)

SEEDS is one of the Core Members of the Asian Disaster Reduction and Response Network (www.adrrn.net), working with other regional NGO's and stakeholders, to promote effective and efficient disaster reduction and response in the Asia Pacific Region. Intensive interactions continued with network partners, particularly the current Chair, Mercy Malaysia, for sharing of information and planning activities for the network.

■ Sustainability of CBDM in Asia, UNCRD Japan

In February 2004, Manu Gupta participated in the final evaluation process of 'User's Guide on Sustainability of CBDM in Asia'. The evaluation process was held in Kobe, Japan, and was followed by the UNCRD Conference 'Community Legacy in Disaster Management', a pre-event for the UN World Conference on Disaster Reduction 2005.

Administration And Finance

■ Legal Status

SEEDS is a non-profit organisation registered in India under the Societies Registration Act of 1860 (Act no. 21 of 1860) vide registration no. 25402 dated 31 January 1994.

SEEDS has been granted registration under the Foreign Contribution Regulation Act, 1976 (Act no 49 of 1976), vide registration no. 231660080 dated 27 September 2000, by the Ministry of Home Affairs, Government of India, for receiving foreign grants.

SEEDS has been granted registration under Section 12A(a) of the Income Tax Act - Exemption, vide letter No. DIT(Exemption)/94-95/S-1680/94/380 dated 21/2/95.

■ Governing Board

The present members of the Governing body of SEEDS are academicians and practitioners from the development sector. They provide overall guidance and direction to various activities of the organization. The governing members are:

V.K.Sharma, Professor
 J.H.Ansari, Professor
 B.Mishra, Professor
 Rajib Shaw, Professor
 Rajesh Bheda, Professor
 Manu Gupta, full time Programme Director at SEEDS
 Anshu Sharma, full time Programme Director at SEEDS

■ Project Management

The management team comprising of Manu Gupta and Anshu Sharma looks after the day-to-day management of the organization. They lead the following teams of dedicated professionals in the four functional areas:

- Our Technical Team works on R&D measures such as the wind tunnel model, water harvesting technologies, shake table miniaturisation and development of technical training material
- The Training Team conducts training and capacity building programmes for the local communities, field workers and government officials working at the community level
- The Social Mobilization Team mobilizes the local communities for various activities such as awareness programmes for children, women, youth and elderly people, orientation on safe construction, and volunteerism for adapting to new technologies
- The Administrative, Finance and Logistics Team provides support to the various programmes teams

The entire SEEDS team comprises twenty two members across the Delhi, Ahmedabad, Porbandar, Datrana and Shimla Offices.

■ Establishments

SEEDS has its head quarters at Delhi with its regional offices at Ahmedabad, Porbandar, Shimla and site office in Datrana.

■ Infrastructure and Facilities

To carry out the programme activities, infrastructure and facilities are developed and constantly upgraded at the SEEDS offices. A repository of books, journals, CDs, cassettes and maps is maintained at the offices and is constantly upgraded. The following are currently available and in use: shake table for earthquake resistance demonstrations, wind tunnel for cyclone resistance demonstrations, global positioning system for field surveys, data recorders, computers and peripherals, field data recorders, field vehicles, rented operational accommodation in Delhi, Ahmedabad, Porbandar and Shimla, and self constructed training centre in Datrana.

■ Training and Capacity Building of SEEDS Personnel and Volunteers

SEEDS, as an organisation, takes particular interest in enhancing the capacity of its team personnel and encourages them to undergo special training from prestigious institutions and participate in national and international workshops from time to time.

SEEDS also hosts volunteers and provides them opportunity and exposure of working with projects which help in building their future career and experience. We host about five volunteers in a year for durations ranging from two weeks to a year.

■ Accounting System

The accounting period followed is from 1 April to 31 March. The software Tally (6.3 version) is used for accounting systems. The accounting system is maintained on the accrual basis in accordance with generally accepted accounting principles. General ledger adjusting entries are made at the end of each month and at year-end.

SEEDS is engaged in projects funded by various government and non government agencies. Cost centers are maintained for different projects under the accounting system.

Our bankers are the Standard Chartered Bank and accounts are operated through their Delhi and Ahmedabad branches. Our auditors are R.B. Lal and Co., New Delhi.

During the year 2003 - 2004 the income of SEEDS was Rs. 9,318,303, and the expenditure was Rs. 8,054,080. The excess of income over expenditure was transferred to the ensuing year.

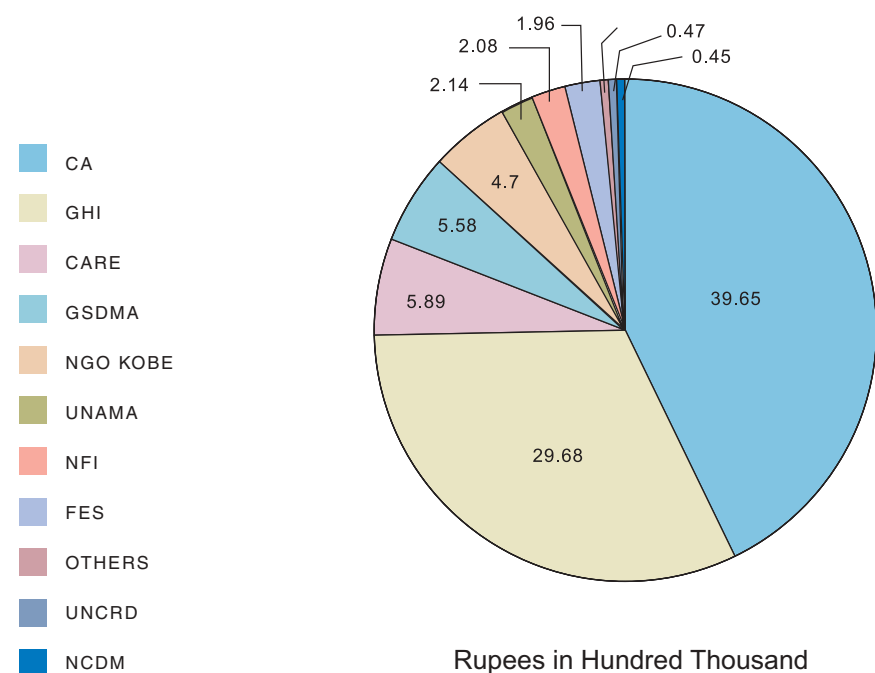
■ Sources of income during the year 2003-04

International

- Benfield Greig Hazard Research Centre, University College London
- Christian Aid
- Co-operative for Assistance and Relief Everywhere (CARE)
- Friedrich Ebert Stiftung (FES)
- Geo Hazards International (GHI)
- National Foundation for India (NFI)
- NGO - KOBE
- United Nations Assistance Mission in Afghanistan (UNAMA)
- United Nations Centre for Regional Development (UNCRD)

National

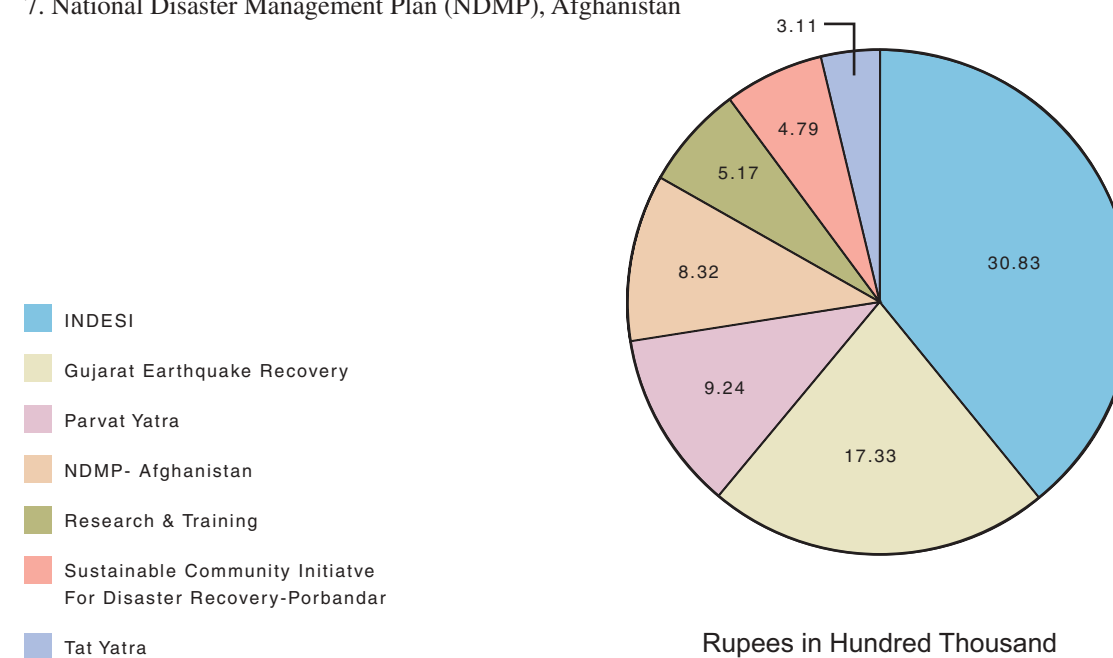
- Gujarat State Disaster Management Authority (GSDMA)
- National Centre for Disaster Management (NCDM)
- Others



Expenditure during the year 2003-04

Expenditure during the year was made under the following activities:

1. Parvat Yatra, disaster reduction campaign in Himalayan states
2. Tat Yatra, disaster reduction campaign in coastal states
3. Sustainable Community Initiative for Disaster Recovery and Preparedness, Gujarat
4. Indian Earthquake Safety Initiative (IndESI)
5. Research and Training
6. Global Open Learning Forum for Risk Education (GOLFRE)
7. National Disaster Management Plan (NDMP), Afghanistan



The Year Ahead: 2004-05

2004-05 is a landmark year. A UN World Conference on Disaster Reduction will be held in Japan in January to mark the tenth anniversary of the Yokohama International Strategy for a Safer World. SEEDS hopes to be at the World Conference, talking about its lessons in the field and trying to influence international policy making in favour of vulnerable communities.

2005 will also be the centenary of the Great Kangra Earthquake that devastated Himachal Pradesh in 1905. SEEDS will be working to gear up its mason training, risk mitigation planning and awareness activities in Himachal towards a campaign to mark the earthquake centenary.

SEEDS Work in Gujarat will be further intensified. Plans are afoot to mobilise masons for training and certification in a big way. The Shake Table, Wind Tunnel and Water Harvesting models currently being used for technology demonstration at community level will be further refined.

Small efforts have been underway for risk reduction work in Orissa ever since the supercyclone of 1999. A stage has now come to consolidate the work and initiate field activities to promote education and information dissemination as a means of disaster reduction. Field based research and action projects will be conceptualised and launched in the State. It is also planned to establish a citizen resource centre in the State.

Urban Risk Reduction is an area of increasing concern. IndESI will move ahead despite modifications in its scope. Schools are increasingly emerging as major stakeholders in all of our activities. Their involvement will be taken to new levels by launching specific school safety programmes in Gujarat, Himachal Pradesh and Delhi.

GOLFRE promises to be a movement with a wide impact. Work will be intensified to market the concept and expand the partnership by addition of more university and NGO partners. A knowledge bank of case studies will be developed, which will be used to design a foundation course on disaster management for field workers. We hope to launch this course in the next year.

It is going to be two years since SEEDS organised Actahead, the international conference on community based disaster management. It is planned to organise Actahead-II wherein the CBDM partners may get together again to plan ahead for making meaningful contributions to the UN World Conference on Disaster Reduction in 2005.

Activities in Afghanistan are expected to continue. SEEDS will move ahead with training personnel of key agencies in the Afghan Government for implementing the plan and preparing province, district and local level plans.

Besides the activities listed above, SEEDS will embark on a mission to enhance its own internal capacity and consolidate its strengths. Staff trainings will continue. An exercise will also be taken up for strengthening the administrative and financial systems of the organisation. An organisational development review is also planned with internal reflection as well as appraisal by external experts.