

MAHARASHTRA EARTHQUAKE: RELIEF & REHABILITATION PROGRAMME

June 27, 2000

*appeal no. 27/1993
situation report no. Final
period covered: 1993 - 1997*

The context

On 30 September 1993, an earthquake measuring 6.4 on the Richter scale struck the Marathwada region of Maharashtra State. It was a shallow focus earthquake with its epicentre in Killari village in Latur District, on the border with Osmanabad District.

India has been divided into five seismic zones. Zone I is least prone to earthquakes and Zone V is most prone. The State of Maharashtra, which falls under seismic Zone I, can be broadly divided into four major regions -- Konkan, Western Maharashtra, Marathwada and Vidarbha. The State consists of 31 administrative districts. The districts of Latur and Osmanabad in the Marathwada region cover a total area of 14,726 sq. km. and have a population of about 3 million.

The earthquake severely affected 67 villages in Latur and Osmanabad Districts, totally razing many of them. It also caused extensive damage to houses and public buildings in another 817 villages in Latur District and 374 villages in Osmanabad District.

Summary of the damage

Particulars	Latur District	Osmanabad District	Total
Loss of human lives	3,726	3,856	7,582
Persons injured	6,283	9,283	15,566
Houses damaged	85,000	60,000	145,000

Besides Latur and Osmanabad, eleven other districts in the State were affected in varying degrees. In these districts, 19 persons were killed, 280 were injured, 1,328 villages were affected and 26,000 houses were damaged. Infrastructure comprising roads, communication systems, water supply schemes, and public buildings also suffered damage.

Red Cross/Red Crescent action

At the request of the Indian Red Cross Society (IRCS), the Federation issued an international appeal seeking CHF 4.5 million for the immediate relief operation, then revised the appeal to CHF 6.19 million.

The Federation also established a delegation in New Delhi comprised of a Head of Delegation, a Finance & Administration Delegate, and a Construction Delegate. Two more Construction Delegates were subsequently recruited.

EMERGENCY PHASE •

Volunteers from the local branches of the IRCS were at the scene of the disaster within hours of the event. In addition to assisting the army and civil authorities in evacuating the dead, and cremating or burying them, removing debris, rendering first aid to the injured and transporting serious cases to hospitals, they distributed relief to the most vulnerable victims. Items included: emergency rations, rice, wheat flour, biscuits, milk powder, sugar and tea; blankets, bed sheets, assorted clothes and cloth sheeting; utensils, kitchen sets, plastic mugs and plastic buckets; assorted medicines. Blood and blood products were also provided. The gross value of the supplies was about Rs. 5 million.

REHABILITATION •

The Government of India, the State Government of Maharashtra, and Governmental and Non Governmental Organisations took on the task of providing relief and rehabilitation to those affected by the quake. Various teams of professionals, among them IRCS assessment teams, visited the affected area to identify rehabilitation and reconstruction needs. On the basis of these assessments, the rehabilitation and reconstruction programme was broadly defined as:

- Housing and Infrastructure.
- Rehabilitation of Economic Activity.
- Rehabilitation of Social Activity.
- Other related programmes.

The Government of Maharashtra (GoM) decided that 57 severely damaged villages were to be relocated to new sites with infrastructure and other amenities. Another ten were to be reconstructed *in-situ*.

ECHO AID •

The area affected by the earthquake was primarily agricultural. For the economic rehabilitation of farmers and agricultural labourers who had lost their animals and agricultural implements and their tools, the European Community Humanitarian Office (ECHO) made assistance available to provide implements and other relief items. The following articles were distributed by the IRCS in the rehabilitation phase:

- 4,747 sets of agricultural implements. Each set consisted of a knapsack plastic sprayer (16 lit), a baliram plough with beam and handle, and a 'U' type harrow (24");
- 20,000 blankets;
- 7 MTs of biscuits.

The agricultural implements were given to the most vulnerable marginal and small farmers. This operation was fully funded by ECHO. (A final report with accounts was submitted to ECHO in April, 1994 through the Delegate funded by ECHO.)

RECONSTRUCTION ACTIVITIES OF THE INDIAN RED CROSS SOCIETY •

In keeping with the Red Cross principles and the need to assist the most vulnerable sections of society, the IRCS decided to focus its reconstruction activities on the health and education sectors and the restoration of the water supply in some villages in Latur District. It drew up a reconstruction programme covering Health Institutions, Educational Institutions and a Water Supply Scheme, with the following estimated financial implications:

Health Institutions:	Rs. 80 million
Educational InstitutionsRs.	20 million
Water Supply Schemes	<u>Rs. 30 million</u>
TOTAL	Rs. 130 million

To present the project the International Federation organised a Donor’s Meeting in Geneva on 21 December, 1993 which was attended by representatives from the following Participating National Societies: British Red Cross, Dutch Red Cross, German Red Cross, Swedish Red Cross, and the Swiss Red Cross. It was agreed that the Rs.130 million budget presented by IRCS would be fully funded through the Federation. This meeting was followed by a Federation mission, including donor Society representatives, in January, 1994.

A memorandum of Understanding (MoU) was signed between the IRCS and the Federation on 22 June, 1994 and between the IRCS and the Government of Maharashtra (GoM) on 17 October, 1994. Both concerned the implementation of the reconstruction project. After some initial delay, all the projects (44) were completed. The land for the projects was provided by the GoM. After completion of construction and equipping the health sector institutions, all facilities were handed over to the GoM.

IMPLEMENTATION PROCEDURE •

The Managing Body of the IRCS constituted a Project Implementation Committee for the smooth implementation and supervision of the Project. IRCS adopted the building designs provided by the Government, thus saving time and money by accepting standardised buildings, which had already been approved by the GoM.

The IRCS engaged its own consultants for the supervision of the work. In Latur District five contractors were involved with the work, which was spread over a large area, since Latur was more severely affected than Osmanabad District. Contracts were given to local contractors in order to involve the local community.

The local branch of IRCS was very cooperative, helping with the work of the Federation Delegation and that of the visiting officer of IRCS.

HEALTH INSTITUTIONS •

Before the earthquake, the GoM had the following health institutions in Latur and Osmanabad Districts

District	District Hospital	Rural Hospital	Primary Health Centres	Sub-Centres
Latur	1	8	44	234
Osmanabad	1	7	41	204
TOTAL	2	15	85	438

Nearly 50 % of these institutions were either destroyed or damaged. The IRCS undertook the reconstruction of 2 Rural Hospitals, with 32 staff quarters attached to each hospital, 6 Primary Health Centres and 23 Sub Centres (see Annex).

The Hospitals constructed under the project were equipped in accordance with the standards of the Government of Maharashtra. The Federation provided funds for the equipment. All the health institution projects were completed by August, 1997.

EDUCATIONAL INSTITUTIONS •

The earthquake caused large-scale destruction of educational institutions, including primary, secondary and senior secondary schools. On the basis of a survey conducted by the field officers of the GoM, construction of school buildings as mentioned below was considered essential :

Name of district	No. of villages	No. of schools	Student strength
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Latur	35	44	14,161
Osmanabad	61	77	24,452
TOTAL	96	121	38,613

IRCS undertook construction and repair work of six educational institutions, all of which were handed over to the GoM by end August 1997.

WATER SUPPLY SCHEMES •

Before the quake the villages of Latur and Osmanabad Districts used dug wells, bore wells and piped water supply schemes for their drinking water supply. The earthquake damaged a large number of these water sources and affected the hydro-geological conditions of the area, leading to a change in the underground water level.

The GoM prepared comprehensive water supply projects for the earthquake affected villages based on least cost solution and the availability of reliable water sources. They included piped water supply schemes for the new housing sites of the rehabilitated villages, to be executed by the Maharashtra Water Supply and Sewage Board, a GoM department.

Among the projects was a Regional Rural Water Supply Scheme for Killari and nine other villages, costed at Rs. 27.4 million. The IRCS agreed to put up the financing for this project.

Name of the Village	Water Supply Capacity (litres)
Sankral	20,000
Hasalgaon	180,000
Haregaon	90,000
Limbala	70,000
Banegaon	50,000
Yelwat	25,000
Malkondaji	70,000
Killariwadi	50,000
Killari	900,000
Killari - II	50,000

In the course of laying pipe lines in 10 villages of Killari and Killariwad, the costs escalated by Rs. 2.91 million on account of additional work and other unforeseen reasons. The IFRC and IRCS agreed to meet this cost escalation, subject to the submission of documents from the Chief Engineer, MWSSB, Latur, justifying the increase.

The Water Supply Scheme funded by IRCS has been completed and the water supply system has been operational in all the 10 villages since January 1998.

Proposed use of remaining funds •

The Maharashtra earthquake relief and rehabilitation operation has a remaining balance of CHF 1.231 million.

Between 1996 and 1998, IRCS, with support from the Federation, conducted a series of 12 disaster preparedness awareness workshops in all regions of India. These workshops had the dual purpose of making State Branches and State authorities aware of the specific importance of disaster preparedness and its direct implications for the community, and of bringing State Branches closer together. As a result, many of the IRCS State Branches have requested more community-based training and specific training for their State and District level staff and volunteers.

Because of this positive response, the IRCS has started a three-year training programme to address all issues related to disaster preparedness, hazard identification, vulnerability and capacity analysis at community level. The workshops enable the staff and volunteers from Branches and Chapters to conduct their own sub-branch and village based training events. This activity also responds to the need for information and data collection, with the ultimate aim of creating a National Society national disaster preparedness plan based on community-, district- and State-level realities.

This three year intensive community-based disaster preparedness and training programme addresses staff and volunteers in State and District Branches, officials, voluntary agency staff, representatives of the communities, youths, and journalists, with the expected output of creating sufficient trainers to address issues at community level. It provides one workshop in each State and Union Territory i.e. one training workshop each month. Each workshop is a five-day residential event incorporating information on disaster causes, hazards, disaster response and disaster management, but mainly focusing on disaster preparedness, mitigation, and hazard mapping/risk identification. Each one includes a practical Vulnerability & Capacity Assessment.

The curriculum for this programme has been developed jointly by the IRCS and the South Asian Regional Delegations (SARD) of the International Federation and the ICRC. Whenever possible, the training is conducted in one of the many official regional languages and uses locally and regionally available resources.

Each CBDP workshop costs INR 200,000 approximately, or INR 2 million (CHF 48,000) for ten workshops a year.

The National Society has put forward a proposal that the entire balance of remaining funds be converted into a CBDP Training Fund. Income from the Fund would be used to finance the IRCS Disaster Preparedness Training Programme. This would include long term collaboration with the Indira Gandhi National Open University, which offers a disaster management diploma course through distance learning to students all over the country. IRCS would sponsor 1,000 Red Cross volunteers as students each year, at an annual cost of rupees 2,000,000 of CHF 48,000.

At the current rate of interest, the fund should yield an income of Rs. 4 million (CHF 96,000) annually.

Contributions

See Annex 1 for details.

Peter Rees-Gildea
Director
Operations Funding and Reporting Department

Hiroshi Higashiura
Director
Asia & Pacific Department