

**THE GUJARAT EARTHQUAKE
RECOVERY AND RECONSTRUCTION
EXPERIENCE: 2001-04**

*International Workshop on Post-Earthquake Reconstruction
Experiences
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DEVASTATION: A TERRIBLE HUMAN TRAGEDY



- Lives lost 13,805
- 167,000 persons suffered injury
- Over 2,22,035 houses completely destroyed and 9,17,158 houses damaged
- Over 10,000 small and medium industrial units went out of production
- 50,000 artisans lost their livelihood





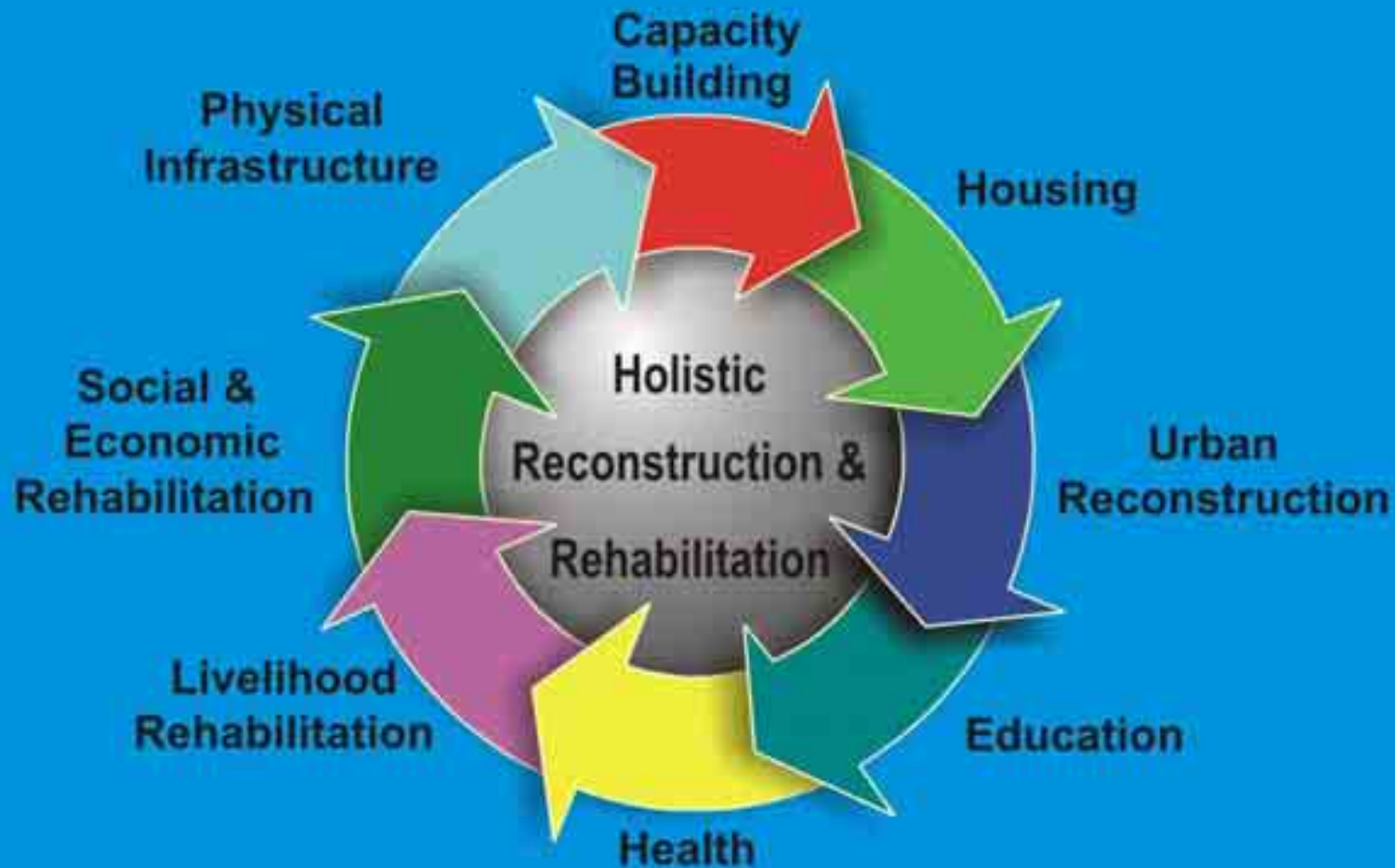
Photo by : Ashok B. Trivedi



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RECONSTRUCTION & REHABILITATION

The reconstruction program has been designed to address the Needs of beneficiaries comprehensively...



PROGRAMME OUTCOMES

Housing

- Reconstruction of 2,00,218 houses (90%) completed
- Repair of 9,08,751 houses (99%) completed

Social Infrastructure

Education Infrastructure

- 44,218 (100%) school rooms repaired
- 12,750 (100%) school rooms reconstructed
- 13,000 new additional school rooms reconstructed

Health Infrastructure

- Repair & Reconstruction of 1,107 health structures

Social Rehabilitation

- Setting of orphanages, assistance to paraplegics, pension to widows and old aged, artificial limbs to handicapped etc

Livelihood Restoration

- Restoration of livelihood of over 200,000 families working in agriculture and village / cottage industries etc

PROGRAMME OUTCOMES

Public Infrastructure

Power

- Strengthening of 8,903 km (90%) of transmission and distribution lines completed

Roads & Bridges

- Repair/Reconstruction of 4,134 km (98%) of state highways and rural roads completed
- All 179 bridges reconstructed

Rural Water Supply

- 2,615 km (96%) of water supply pipelines laid

Dam Safety & Irrigation

- 81 dams (82%) have been strengthened

Public Buildings

- 2,758 (99%) public buildings reconstructed
- 8,999 (98%) public buildings repaired
- Retrofitting of 3534 undamaged buildings underway and 377 completed

Urban Infrastructure

- 349 Km (100%) of urban roads completed
- 333 Km (93%) of sewerage pipelines have been laid
- 700 Km (99.7%) of water supply pipelines have been laid
- 171 (99%) new municipal buildings have been reconstructed out of 173

LIVELIHOOD RESTORATION

- Livelihood of 77,587 beneficiaries could be restored through
 - Working Capital Assistance to Handloom Weavers
 - Toolkits to Handloom Weavers, Artisans, Handicraft Artisans, Masons
 - Loan Subsidy to self-employed persons
 - Handlooms and handicraft parks, Gramudyog vikas kendra sanctioned
- 1,83,793 farmers have benefited through
 - Input kits
 - Pucca Structure on Farms
 - Irrigation Assets

LIVELIHOOD RESTORATION

- 187,284 industrial units benefited through
 - Cash Assistance to Small Cabins & Shops
 - Subsidy assistance for small industrial units
 - Subsidy and interest subsidy given for service & trade units

- Rehabilitation of 69 affected tourism units

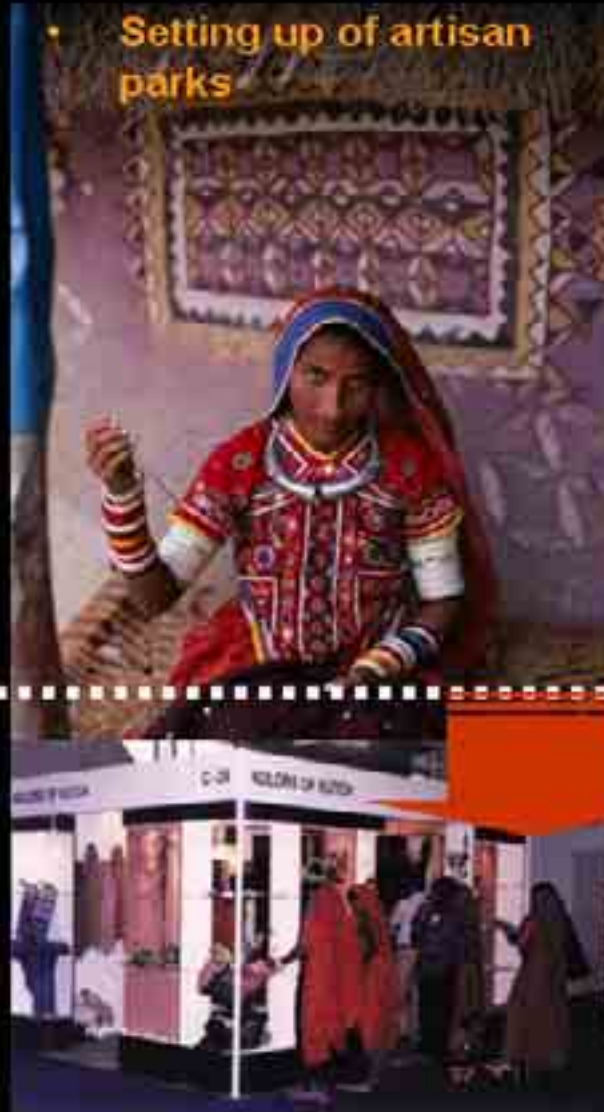
LIVELIHOOD RESTORATION

- Cash assistance and loan interest subsidy



- Provision of Tool Kits

- Setting up of artisan parks



- Establishing Market Linkage

- Agriculture
- Industry
- Rural and Cottage Industry

- Restored livelihood of over 200,000 families (Agriculture, Industry including Cottage Industry)



- Provision of Tool Kits

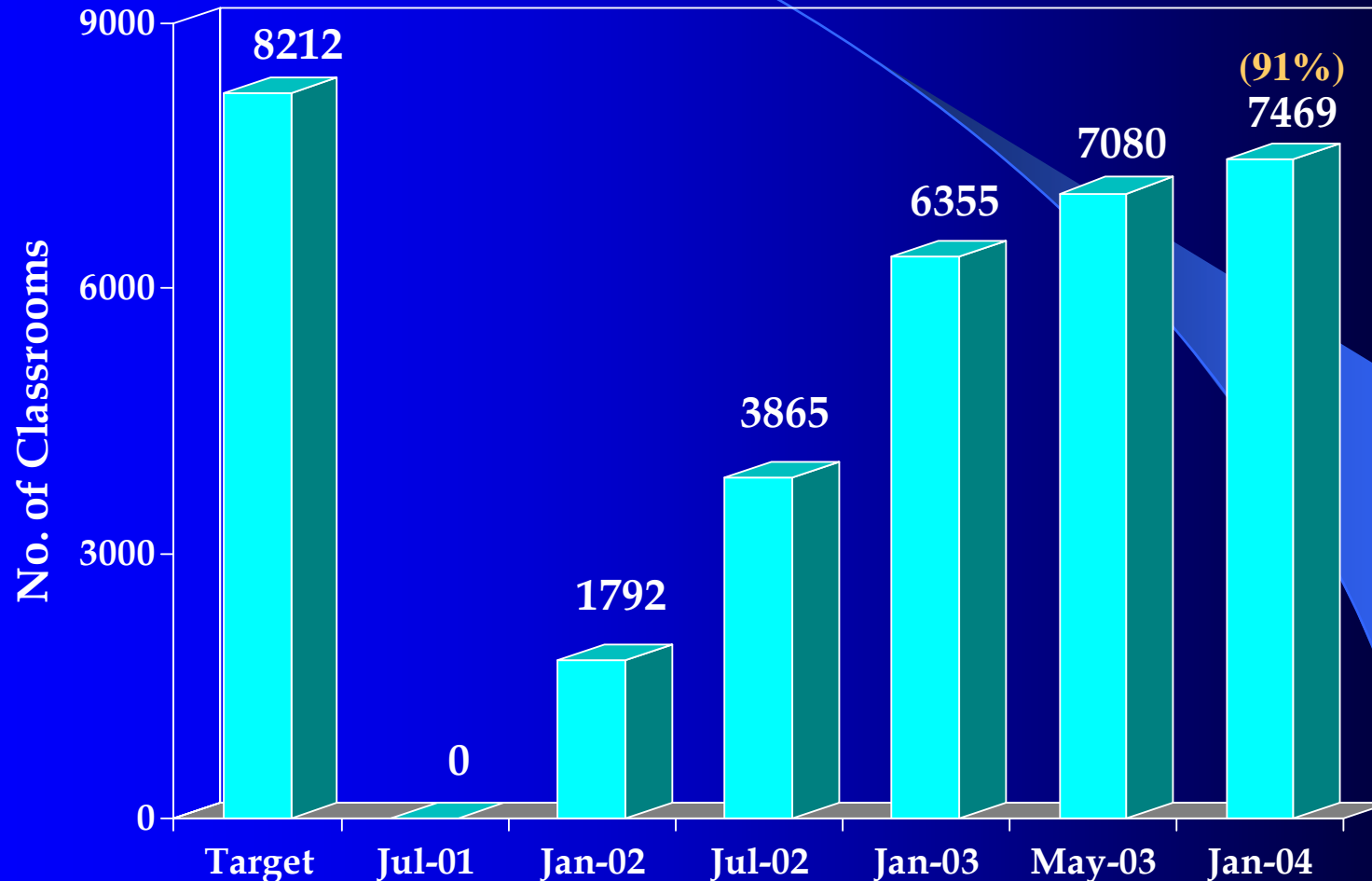
HEALTH INFRASTRUCTURE

Health infrastructure
damaged



Health infrastructure reconstructed

SCHOOL ROOMS: RECONSTRUCTION



- In addition to the 8212 destroyed classrooms, 3810 additional classrooms have been constructed

RECONSTRUCTION OF HOUSES

APPROACH

Owner Driven Reconstruction (80%)

- Owner was the prime mover of the reconstruction process and reconstruction as per the need, pace and will of the owner
- Government provided material, technical and financial assistance
- A sense of acceptance and ownership leading to higher occupancy
- Knowledge transfer resulting in long-term disaster management capacity building

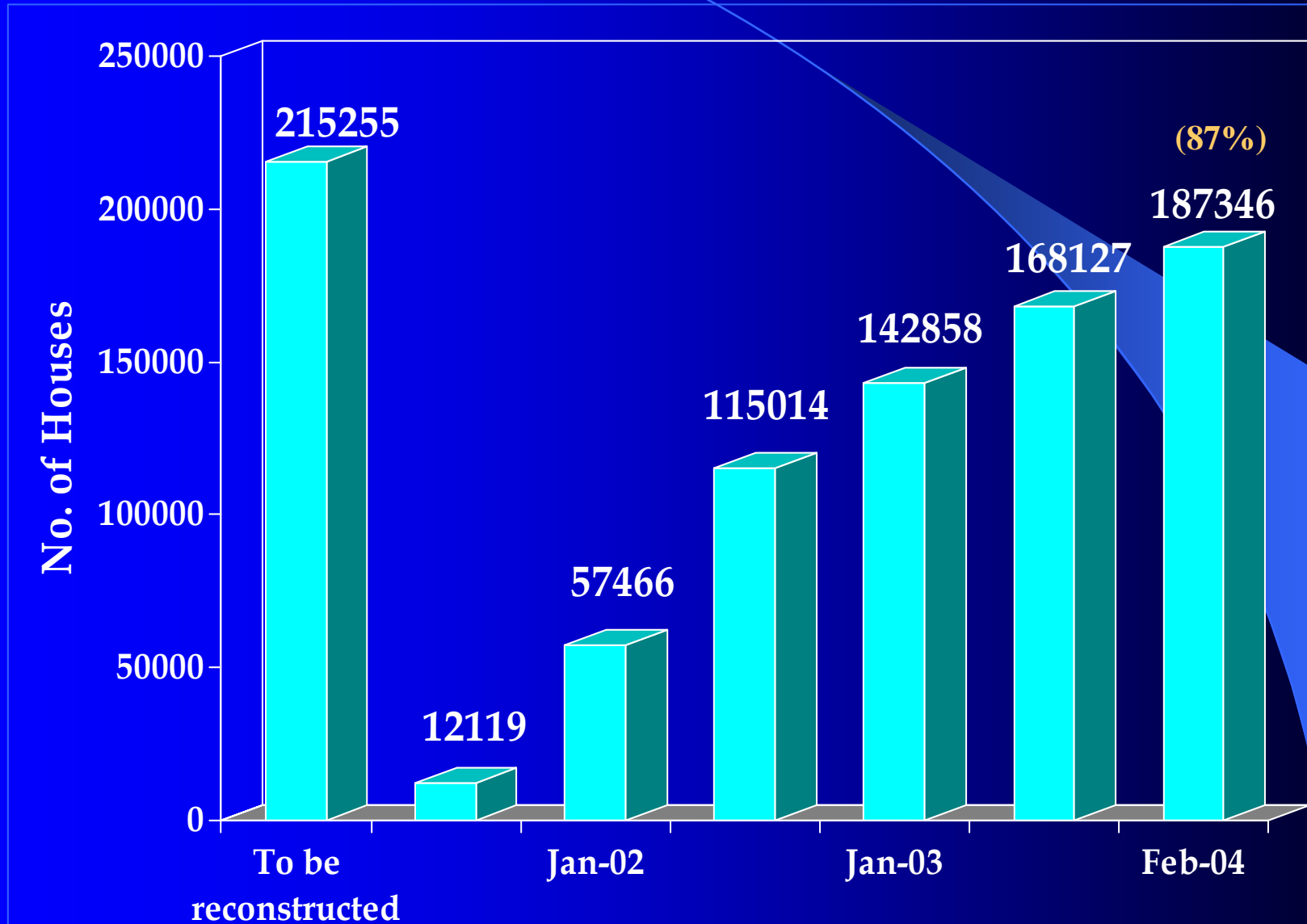


Public Private Partnership Programme (20%)

- Partnership with 80 NGOs on a 50% cost sharing basis with government
- Community through Gram Sabha to approve NGO involvement



RECONSTRUCTION OF HOUSES TREND



RECONSTRUCTION OF HOUSES PICTURES



- **Owner-driven Reconstruction (80%)**
- **PPP Reconstruction (20%)**



Owner-driven Housing

RECONSTRUCTION OF HOUSES

INNOVATIVE ASPECTS

COMMUNITY PARTICIPATION

- Largely Owner Driven
- Minimal relocation
- **Choice of relocation** decided by village community through gram sabha

RESOURCE ASSISTANCE

- **Payment made directly in bank accounts** - 6,60,000 bank accounts opened
- 1,082 **outlets** opened - 219 lakh cement bags distributed apart from steel at subsidized cost
- **Excise duty / Sales tax exemption** for building materials procured in Kutch

EQUITY

- **Joint ownership** of house by husband and wife

ENSURING STANDARDS

- **Multi-hazard** resistant reconstruction
- Payment of installments after **engineers' certification**
- **Third party quality audit** by National Council for Cement and Building Materials (NCCBM)

RISK TRANSFER

- **Insurance** to 14 types of hazards for 10 years at premium of Rs.367 deducted from the last financial installment by the state

GRIEVANCE REDRESSAL

- **District Judge** declared as **Ombudsman** and around 42,000 cases were re-solved

DAMAGE ASSESSMENT

- Each Damage Assessment Team consisted of an Engineer, a Revenue department official and a Local School Teacher/member of local NGO
- Objective criteria and guidelines for damage assessment
- Damaged Houses were photographed and kept on record

However,

- Resurvey of many damaged structures
- Cases of lack of uniformity in assessment of damage

FORMULATION OF POLICIES

- A State level Advisory committee comprising members from government, academic/management institutions, NGOs and industry was formed to assist/advise in policy formulation
- An operations manual for project implementation was prepared in consultation with funding agencies, clearly spelling out powers and responsibilities
- **Owner-driven approach** to housing reconstruction was adopted to ensure people's participation
- Also a program of **public-private partnership** to involve NGOs and have Transparency and Public Participation

AWARENESS CREATION ABOUT POLICIES

- Advertisements issued in the newspapers regarding the rehabilitation packages
- Government Resolutions for assistance translated to Gujarati language and made available to public and NGOs and also put up on the website of GSDMA
- A booklet of questions and answers regarding the available assistance and the disbursement procedure was prepared and distributed to public and NGOs
- Video shows in affected villages in two phases to inform people about the assistance packages and to educate people about earthquake resistant construction

AWARENESS CREATION ABOUT POLICIES (Contd.)

- Legal literacy Camps conducted in 1800 villages by the Gujarat State Legal Aid Services to educate people about their eligibility for assistance, legal rights and existing grievance redressal mechanism.
- Information Kiosks installed at different places to give information about different schemes, assistance amount and list of beneficiaries
- List of beneficiaries along with assistance amount displayed at local level government offices
- SETU, a network of public information offices was run by NGOs for providing guidance to public regarding policies, and to work as interface between the people and the administration

PROJECT IMPLEMENTATION [QUALITY CONTROL]

- Housing Assistance was released in installments which was linked to physical progress of the reconstruction
- Installments of assistance were released only after quality certification issued by government engineers
- Payment to house-owners through bank accounts
- Third-party quality audit of all the houses being reconstructed
- Third-party quality audit engaged by various implementing agencies involved in R & R Program

PROJECT IMPLEMENTATION [PEOPLE'S PARTICIPATION]

- Decision on relocation, if any, taken by local self-government institutions at village level
- Debris removal by village level committees, in addition to other agencies, though problems in a few cases
- Repair of school rooms by village civil works committees
- Development plans prepared for the four worst affected towns in consultation with all the stakeholders
- Town planning schemes were prepared in consultation with the affected people

PROJECT IMPLEMENTATION [MONITORING]

- The implementation of the program was monitored by a state level advisory committee consisting of eminent public persons, NGOs and experts
- Central Implementation Review Group monitored the progress of various activities
- Periodic reviews by WB, ADB and state level review groups
- Submission of monthly, quarterly and annual reports to all concerned, particularly the funding agencies
- National Commissions - for minorities, socially weaker sections and for women - reviewed the implementation

PROJECT IMPLEMENTATION [MONITORING THROUGH STUDIES]

- Social Impact assessment [SIA] studies to by academic/research groups provide real time feedback of the affected people to the GSDMA regarding R & R activities
- Benefit Monitoring [BM] survey independent consultancy firm to ascertain delivery of benefits especially to the socially and economically weaker sections, women and vulnerable people
- BM survey and SIA were concurrent evaluations which helped in mid-course corrections and receiving community feedback

GRIEVANCE REDRESSAL

- Two types of committees: one at village level and the other at district level for Grievance Redressal
- A member from socially weaker sections, a woman member and a member of minority community included in the village level committee
- Five NGOs, Social Welfare Officer, President of the local self government, and all elected members of the legislative assembly, and Parliament included as members of the district level committee
- District Judge declared as the Ombudsman to enquire into any complaint and direct the district administration to do the needful

PROCUREMENT

- Delegation of powers: Procurement approval at different levels

Amount in Rupees Million	Authority/Level
10	Secretary of the Department
20	Secretary of the Department +CEO, GSDMA
20-50	3 Member Committee [Secretary of the Department +CEO+Secretary Expenditure]
50 and above	Governing Body of the GSDMA

- Notice for procurement of goods and services advertised on website & leading newspapers of regional and national languages
- Formation of Expert Committees for technical evaluation of proposals
- Standard procedures of World Bank and ADB were used for procurement
- Administrative approval by GSDMA for projects being implemented by line agencies
- E-Tendering could, if feasible, reduce formation of cartel and ensure competition

FINANCIAL DISCIPLINE

- An independent professional accounting system was adopted
 - Day-to-day internal audit
 - Statutory audit
 - CAG audit
- Statutory Audit Certification of Annual Financial Statements
- Annual Audit Report on the records & accounts of one project along with certified financial statements
- “SOE” Audit Certificate to Funding Agency
- Use of accounting software
- GSDMA to provide “SOE” audit certificate on a semi-annual basis within 60 days of the close of each semi-annual period

DISCIPLINARY PROCEEDING & ANTI-CORRUPTION MEASURES

In spite of efforts towards transparency and procedural improvement, there were exceptions and aberrations, though not significant given the massive work. For such cases, strict actions were taken:

- Complaints of corruption were expeditiously attended to
- Prompt verification and investigation
- Departmental proceedings in respect of government employees
- Even arrests and prosecution in serious cases in respect of government employees, elected representatives and others

SUMMARY

- A comprehensive reconstruction programme
- Owner-driven approach to housing reconstruction
- Involvement of NGOs, industries, institutions and international organizations
- Participatory decision making at various levels: involvement of affected people, people's representatives and civil society
- Decentralisation of decision making
- Autonomy and delegation of powers to the GSDMA
- Independent audit and review
- Social impact assessment and benefit monitoring studies
- Responsiveness, transparency and anti-corruption measures

RECOGNITION/AWARDS

- **UNESCO awarded The Commonwealth Association for Public Administration & Management (CAPAM) GOLD Award for Excellence in Governance in 2004**



- **UNESCO was awarded The United Nations Sasakawa Award for Disaster Reduction 2003**



- **UNEP awarded The Green Award by World Bank for successfully addressing environmental concerns in the Emergency Reconstruction and Rehabilitation Program for the year 2001**

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