Gujarat Earthquake Reconstruction and Rehabilitation Policy

GSDMA

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FOREWORD

January 26 earthquake was an unprecedented calamity for us. The loss of lives in the earthquake left me with the saddest feelings of my life. In the wake of the quake many people became homeless. They lost their source of living and sense of security. We had never witnessed a tragedy and destruction on such a large scale.

The government immediately stepped in. We worked tirelessly to save lives and give sustenance. It was a massive rescue and relief effort. The nation rose as one to help Gujarat. Aid and assistance generously flowed in from all sides of the Globe. Our grief is accompanied by a steadfast resolution. It was to rebuild Gujarat. The surge of humanitarian spirit completely overwhelmed us.

We immediately set about the task of rebuilding. Considering the scale of devastation, it is a mammoth task. We had to provide for the minimum rehabilitation needs of all the earthquake-affected people. We had to assess the damages in different regions, and develop a feasible scale of assistance for the people living in rural and urban areas. We need to rebuild our schools and hospitals, and restore our public infrastructure. We must learn our lessons too, and prepare the state for dealing with future disasters.

It has been a great challenge to conceptualize a program, which addresses all the important concerns that arose from the earthquake. Yet we accomplished it within a very short period of four months. We have laid down the entitlements for reconstruction and repairs of houses. We have announced a series of programmes for economic rehabilitation and livelihood restoration. We have developed a blueprint for rebuilding our social and economic infrastructure. We immediately formed the Gujarat State Disaster Management Authority to implement the Reconstruction and Rehabilitation Programme. We remain determined, more than ever, to move fast on the road to sustainable recovery and rehabilitation.

I have the satisfaction of presenting the earthquake reconstruction and rehabilitation policy, which encompasses all the measures and institutional initiatives taken by the government. This policy represents a framework of entitlements and a prospectus of development. It is also an important step in our communication with the people of Gujarat. I sincerely hope that this policy will reflect the vision of a successful reconstruction and rehabilitation plan.

Narendra Modi
Chief Minister, Gujarat

Abbreviations and Acronyms

ACEO	Additional Chief Executive Officer
ADA	Area Development Authority
ADB	Asian Development Bank
ADDO	Additional District Development Officer
AMC	Ahmedabad Municipal Corporation
ATDO	Additional Taluka Development Officer
CE	Chief Engineer
CEO	Chief Executive Officer
CII	confederation of Indian Industries
CHC	Community Health Centers
CIRG	Central Implementation Review Group
DDO	District Development Officer
DPEP	District Primary Education Project
GEB	Gujarat Electricity Board
GERRF	Gujarat Earthquake Rehabilitation & Reconstruction Fund
GERRP	Gujarat Earthquake Rehabilitation & Reconstruction Project
GNS	Gram Navrachna Samiti
GOG	Government of Gujarat
GOI	Government of India
GR	Government Resolution
GSDMA	Gujarat State Disaster Management Authority
GUDCO	Gujarat Urban Development Corporation
GWSSB	Gujarat Water Supply and Sewerage Board
HUDCO	Housing and Urban Development Corporation
IAS	Indian Administrative Service
IAs	Implementing Agencies
IIM	Indian Institute of Management
ILO	International Labour Organisation
IMD	India Meteorological Department
MLAs	Member of Legislative Assembly
MPs	Member of Parliament
NGO	Non-governmental organization
NRI	Non-Resident Indian
PHC	Primary Health Center
PMRF	Prime Minister's Relief Fund
PVC	Polyvinyl Chloride
R&B	Roads and Buildings
RBI	Reserve Bank of India
RCC	Reinforced Cement Concrete
SEWA	Self Employed Women's Association
SIDBI	Small Industries Development Bank of India
SHG	Self Help Group
SPIESR	Sardar Patel Institute of Economic & Social Research
TAC	Technical Advisory Cell
TDO	Taluka Development Officer
UDD	Urban Development Department
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
WB	World Bank
WHO	World Health Organization

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1. Reconstruction and Rehabilitation Policy Framework

1.1 The Context

On January 26, the Republic day, an extremely severe earthquake struck Gujarat. The earthquake, which measured 6.9 on Richter Scale (India Meteorological Department's estimate) and MW 7.7 (US Geological Survey's estimate), had its epicenter at latitude 23.40N and longitude 70.28E, located to the north of Bhachau, about 250 km west of Ahmedabad, and a depth of 25 km. The earthquake was followed by more than 500 aftershocks with a magnitude of more than 3.0 and above. The ground shaking lasted about two minutes with strong ground motion lasting for about 25 seconds, and effects from the earthquake were felt throughout the Indian sub-continent. In location and magnitude, this earthquake is very close to the Kutch earthquake on June 19, 1819.

This earthquake was the worst natural disaster for the country in the last 50 years. Almost the entire state reeled under its catastrophic impact. The district of Kutch was devastated. A large number of towns and villages in Kutch suffered almost complete destruction. Other seriously affected districts included Surendranagar, Rajkot, Jamnagar, and Patan. In Ahmedabad, more than 70 high-rise residential buildings collapsed.

The loss of lives caused by the earthquake was colossal. About 13,800 people died, and approximately 1,67,000 suffered injury. With destruction and damage to more than 1.2 Million houses by the earthquake, the people have lost their shelter and security. All the civic facilities — schools, hospitals, health centers, and public buildings — suffered massive destruction. The utility infrastructure, which included water supply, electricity and telecommunications, were also completely disrupted.

There have been varying figures regarding the number of deaths. In the immediate aftermath, there was exaggerated account of deaths as high as one lakh. A more realistic figure hovered around 20,000 deaths. Recently, when the district administration carried out a detailed scrutiny of deaths for the distribution of *ex gratia* assistance, the numbers of deaths have come down to approximately 13,800.

The earthquake had a very severe impact on livelihood. More than 10,000 small and medium industrial units stopped production due to damage to plants, factories and machinery. Work at thousands of saltpans stopped after the earthquake. A large number of craftsmen and artisans who live in Kutch lost their workshops and tools. There was a heavy loss of livestock in the region, an important source of peoples' livelihood. In face of these staggering loss estimates, there is a pervasive sense of disempowerment and vulnerability among the people.

The nation rallied to share the grief of the people of Gujarat. As a great expression of human solidarity, relief and support poured in from all over the world. However, as the people recover from the immediate impact of the disaster, the state has to address the issue of long-term rehabilitation. Though the people in the earthquake-affected areas have shown great courage and resilience in dealing with this extreme adversity, they need help and assistance for rebuilding their lives.

It has placed an extraordinary responsibility upon the Government of Gujarat, which responded with a great sense of urgency and sensitivity to the challenge of rehabilitation. With the support of the World Bank, Asian Development Bank, United Nations, and other multilateral and bilateral agencies, it has prepared the Gujarat Earthquake Rehabilitation and Reconstruction Project. It aims at becoming a people's program. It envisages building of a wide societal coalition for rehabilitation. It emphasizes the empowering process through continuous consultations with the community. It strives for making informed choice for recovery and rehabilitation, through dissemination of technology and best practices. With a deep sense of compassion and commitment, the Government of Gujarat has resolved to lead this program of rebuilding and regeneration, which will enable people to overcome and transcend this great human tragedy.

1.2 Objectives

The Gujarat Earthquake Rehabilitation and Reconstruction Project is a comprehensive multi-sector program, aimed at rehabilitation of the people affected by the earthquake through provision of housing, social amenities, infrastructure, and livelihood support, based on sustainable

economy and ecology. The program's broad objectives are described as follows:

- Build, retrofit, repair and strengthen houses for the people, and public buildings affected by the earthquake through application of earthquake-resistant technology.
- Revive the local economy by providing assistance for agriculture, industries, small business, and handicrafts, and regenerate livelihood for the people.
- Rebuild and upgrade community and social infrastructure, improve education and health system, and strengthen social protection measures for weaker sections of the population.
- Provide health support to the people injured by the earthquake on a long-term basis and psychological counseling for the people traumatized by the earthquake.
- Restore lifeline infrastructure of transport networks and utility infrastructure of power and water supply, and reduce their vulnerability to natural disasters.
- Support gender empowerment through involving women at all stages in the program implementation.
- Provide support for the children affected by the earthquake, and alleviate social deprivation through an integrated nutrition and education strategy.
- Implement a comprehensive disaster management program, improving the disaster preparedness and emergency response capacity of the government to deal with different types of disasters.
- Reduce vulnerability through long-term mitigation programs aimed at watershed management and drought mitigation, and improve people's resilience and food security through diversification of sources of income-generation and asset building.

1.3 Guiding Principles

The mandate of the reconstruction and rehabilitation program goes beyond the immediate priorities of earthquake reconstruction, and pursues broader social and economic issues impinging on the household- and

community-level development and empowerment. The program will strive to apply following principles in its implementation:

- It will involve people and representative institutions in the decision-making process, and reflect their priorities and aspirations in program deliverables.
- It will strengthen civil society institutions like NGOs, community-based organizations, and women's groups through building partnerships and collaborations in the implementation process.
- It will apply principles of equity and empowerment, and ensure, through appropriate mechanisms, that the voices of the weak and poor are always heard.
- It will help the beneficiaries and stakeholders to make informed choices regarding their habitat by disseminating knowledge of seismic technology, building materials and construction practices.
- It will encourage the participation of private sector, NGOs and expert institutions in the program and expand the ownership and knowledge base of the program.
- It will introduce structural and non-structural rehabilitation measures, which are feasible and affordable, and which merge with the culture, climate and life-style of communities.
- It will ensure highest levels of transparency and accountability in the program implementation through appropriate institutional mechanisms and practices.

1.4 Program Components

The Gujarat Earthquake Rehabilitation and Reconstruction Project will comprise a number of components, based on an objective assessment of rehabilitation needs. These components may be described as follows:

1.4.1 Housing

- Debris removal, salvage and recycling
- Construction of temporary shelters
- Reconstruction of more than 2,30,000 houses
- Repairs and strengthening of over 10,00,000 houses
- Reconstruction and repairs of government staff quarters

1.4.2 Livelihood Support Programs

- Credit supply for the self-employed and craftsmen
- Provision of work sheds
- Provision of toolkits for artisans and crafts persons
- Creation of revolving funds for livelihood programs
- Setting up of handloom-handicraft parks and rural industry centers
- Assistance for farm inputs and implements
- Special package for salt farmers
- Assistance to small, medium and large industries
- Assistance to tourism units
- Assistance to traders and shop owners

1.4.3 Infrastructure

- Repair and strengthening of roads, bridges and culverts in earthquake-affected areas
- Reconstruction and repair of rural and urban water supply schemes
- Repair and replacement of tube-wells
- Reconstruction and restoration of municipal and environmental infrastructure
- Restoration of transmission and distribution network in power sector
- Reconstruction and strengthening of earthen dams, canals, and irrigation structures
- Repair and Reconstruction of Administrative buildings
- Improved town planning with improved infrastructure in the four towns of Kutch

1.4.4 Social and Community Development

- Reconstruction of district hospitals, community health centers, primary health centers and primary health sub-centers
- Reconstruction of Aanganwadi Centers, and Integrated Child Development Scheme godowns
- Reconstruction of Ayurvedic and Homeopathic hospitals and dispensaries
- Reconstruction and repair of primary and secondary schools
- Social protection for orphans, widows, handicapped and marginal groups
- Repair and Reconstruction of Higher and Technical Education Institutes with improved infrastructure

- Rehabilitation of protected and private monuments and heritage buildings

1.4.5 Disaster Management

- Emergency preparedness and response
- Hazard Mapping and Monitoring
- Community-based Disaster Mitigation

1.5 Resource Mobilization

Considering the enormous direct and indirect losses caused by the earthquake, the reconstruction and rehabilitation program will require a total outlay of about Rs.8,500/- Crores (US $ 1770 Million). The Government of Gujarat proposes to secure a loan of about Rs.3300/- Crores (US $ 687.5 Million) from the World Bank, and Rs. 1680/- Crores (US$ 350 Million) from the Asian Development Bank. Government of India and a number of State Governments too have declared their support and contribution for various components of the rehabilitation program. The Government of Gujarat proposes to meet any shortfall in the reconstruction program through its own resources.

1.6 Implementation Strategy

The Government of Gujarat will follow an implementation strategy encompassing all the guiding principles mentioned above. It is a carefully devised strategy, which harmonizes the emergency nature of reconstruction program with a strong emphasis on community participation and seismic safety measures. The main elements of the implementation strategy are as follows:

a. **Carry out an in-depth damage assessment:** The Government has undertaken a comprehensive damage assessment of all the houses, public buildings and infrastructure in the earthquake-affected districts. The damage assessment will provide a more accurate account of the rehabilitation needs, and form the basis of a large-scale engineering and building strategy. It is being carried out by a team for each village, which comprises a Government engineer, an official of Revenue / Panchayat and a representative of NGO / Headmaster, if no NGO is working within the village.

b. **Conduct a social impact assessment:** The Government has commenced a longitudinal social impact assessment of the earthquake. It will provide a benchmark of vulnerability at the household and

community level, and suggest measures, which will help communities to cope with, and recover from the disaster.

c. **Set up a Public-Private partnership:** The Government recognizes the strength of private sector and NGOs in the state in dealing with the enormous challenges of reconstruction. A broad-based partnership with these important institutions of civil society, based on trust and reciprocity, has been an integral feature of the rehabilitation program.

d. **Encourage owner-driven and hazard-resistant construction:** The Government has actively promoted owner-driven construction, with the application of seismic-resistant technology. It will involve communities in the actual process of construction, and instill a sense of security and confidence among them, which is extremely important for their social and psychological recovery. It will also expand the local knowledge base and capacity for implementing a program of this magnitude.

e. **Establish community participation mechanisms and facilitate decision-making at the community level:** The Government values the crucial role to be played by formal and informal processes of community participation at the level of villages and urban centers. The Government will strive to encourage these processes, which enable communities to take their decisions regarding reconstruction and development within the broad rehabilitation policy framework and ensure accountability and probity in the implementation.

f. **Disseminate information about the rehabilitation program and people's entitlements**: The Government has organized an active campaign of information dissemination regarding different packages of assistance and the peoples' entitlement. It recognizes the importance of community outreach for application of hazard resistant technology in construction and active participation of people in the rehabilitation program. The Government also seeks to involve the elected representatives, media, and academia in the rehabilitation program through outreach and education programs.

g. **Emphasize social and community development and gender empowerment:** The Government has integrated a strong component of social and community development in the rehabilitation program. It places the reconstruction program right in the context of development and

empowerment. It also recognizes the importance of women's participation in the program as a crucial indicator of the peoples' ownership of the program.

h. Constitute the Gujarat State Disaster Management Authority (GSDMA): The Government has set up an empowered organization, GSDMA, under the chairmanship of Chief Minister, especially for implementing the massive earthquake rehabilitation program. The GSDMA draws upon a diverse pool of experience and specialization from the government and private sector, and encourages flexibility, innovation and responsiveness in its operations, while maintaining the highest level of professional standard. Supported by a number of project consultants, it coordinates among all the implementing agencies, and provides leadership of the project.

2. Housing

The Government's housing recovery policy calls for a participatory, community-driven process, with communities and individual households rebuilding on a self-help basis, with technical support and facilitation from Government, private sector, NGOs, local government and the Panchayat system. A number of policy pronouncements have flown from this underlying philosophy.

2.1 A Community-driven Housing Recovery

Firstly, the Government has extended to the earthquake-affected communities a range of choice from complete and partial relocation to in-situ reconstruction. Communities, through a participatory process of decision-making will exercise their option. Selection of new village site will be made with the involvement of village level Samiti or Gram Sabha of the village and the NGO / Agency involved. A predominant sentiment among communities for minimal relocation has been a guiding influence on the housing recovery policy.

Secondly, in view of heterogeneity and a large geographical spread of settlements in the earthquake-affected region, it has been decided to decentralize the housing reconstruction process through delegation of technical and financial powers to the district administration and Area Development Authorities constituted for urban centers of Kutch.

Thirdly, it will primarily be a community-based, owner-driven program, with technical assistance from engineers provided by the government, building centers, NGOs, etc. Owners will organize reconstruction, repairs and strengthening through informal or formal contracts with small contractors, artisans and masons.

Finally, the recovery program will be based on a tripartite partnership, involving the Government of Gujarat, the private sector (including NGOs) and the beneficiaries themselves. This partnership will harness the strengths of each of these participant groups, thus producing a practical and feasible implementation strategy.

2.2 Housing Recovery Strategy

The Government of Gujarat proposes to implement the housing recovery program through the following measures: *(1) Removal of Rubble, (2) Setting up of temporary / interim shelters, (3) full reconstruction of collapsed and demolished houses, (4) Repair of damaged units, (5) Retrofitting of undamaged units in the State, and (6) Rebuilding of social and community infrastructure.*

Removal of Rubble: Removal of rubble is necessary before the process of reconstruction begins. The rubble removal will also take into account the environmental aspects, and proper utilization of rubble by recycling it in non-critical application to reduce the construction costs.

Temporary Shelter: The Government will facilitate the construction/availability of temporary shelters for both the urban and rural homeless. The process of shelter delivery will be different for the residents of cities and villages. In the areas where there is relocation or partial relocation, Government will construct shelters either through its own agencies or through the NGOs, with the community help, using the materials acceptable to the beneficiaries. In other cases, the strategy will be to provide them with shelter material so that communities can set up temporary shelter themselves for the intervening period.

Full reconstruction of collapsed and demolished houses: The Government of Gujarat will support the reconstruction of approximately 2,30,000 fully collapsed or demolished houses. The Government will

The region of Kutch and the adjoining areas fall in most vulnerable seismic zones IV and V, a classification developed by the Bureau of Indian Standards.

encourage the application of different mechanisms for reconstruction, either individually or in combination. While homeowners remain the primary drivers of the reconstruction process, the actual reconstruction of houses can be done through the partnership of NGOs, local artisans and homeowners, small contractors, or cooperatives. The Government's assistance will be able to meet the need for house reconstruction for people below poverty line and low-income groups. If beneficiaries choose to increase their living space, in addition to their entitlement, they can approach commercial banks and microfinance institutions for loan.

Repair of damaged houses: The Government will support repair of more than 10,00,000 damaged houses. The Government will use similar mechanisms for implementing this component as in the case of full reconstruction. Homeowners can choose to repair and strengthen the house themselves or enter into an agreement with the NGOs or small contractors. On behalf of the homeowners or community, the Government may release the assistance to the contracting party.

Retrofitting of undamaged units in the State: While the Government will not finance retrofitting or strengthening of undamaged buildings, it will provide technical assistance during the project period to all the homeowners or cooperative housing societies in the state who wish to invest their own funds into strengthening of their buildings to withstand better future earthquakes and cyclones.

Rebuilding of social and community infrastructure: The normative minimum infrastructure for a village will comprise Primary School (3 rooms), Panchayat Ghar including Talati Quarters, water storage, stand post and other ancillaries, Balmandir / Aanganwadi, Roads (inside and approach), electricity supplies, leveling and filling of the new site, etc. The facilities available in the old village have to be recreated at the new site. If the village is being rehabilitated in-situ, these facilities will be repaired / retrofitted / reconstructed, as the physical state of these facilities requires.

General Development Control Regulations sanctioned by Government under Sec.16 of Gujarat Town Planning & Urban Development Act, 1976 dated 29.11.1987 define low rise and high rise buildings.

2.3 Assistance for Housing Recovery

In accordance with the strategy outlined above, the Government of Gujarat announced five special packages of assistance for reconstruction, retrofitting, and repairs of approximately a million houses destroyed and damaged in the earthquake. The benefits enunciated through these packages form the basis of the housing recovery program.

- The package 1 addresses the reconstruction and rehabilitation of villages in zone IV and V where more than 50 per cent of the houses have collapsed. At the rate of nearly Rs. 3 crore per village of 200 households, it envisages Rs. 30 lakhs for land acquisition, Rs. 70 lakhs for infrastructure, and Rs. 1.8 crore for constructing 200 pucca, quake and cyclone-resistant houses, and Rs. 20 lakhs for other emergency facilities.
- The package 2 is for villages in seismic zones IV and V, which have opted for in-situ reconstruction. Here, the families below the poverty line whose houses have been destroyed would get Rs. 40,000. Others will get assistance up to Rs.90,000/- for reconstruction @ Rs.2000 per Sq.m. of built up area with a ceiling of 45 square meters.
- The package 3 is for the villages situated in areas other than Zone IV and V, where individual houses have been destroyed or partially damaged. The assistance ranges from Rs. 7,000 for totally destroyed huts to Rs. 40,000 for fully destroyed houses depending on extent of damage. For the repair of damages, the assistance varies from Rs. 2,000 to Rs. 20,000, depending upon the extent of damages.
- The package 4-A declared by the Government relates to the RCC (Reinforced Cement Concrete) frame structure, (low rise & high rise) in urban areas, which include Municipal Corporation, Urban Development Authority areas, and other municipalities, in the state (excluding Bhuj, Bhachau, Rapar and Anjar in the Kutch District). The package provides reconstruction assistance to owner of RCC frame structure buildings at the rate of Rs. 3500 per square meter up to a maximum built-up area of 50 square meters. It also offers assistance for repairs and structural strengthening of low rise and

high rise structures, depending upon the degree of damages varying from Rs.50, 000/- to Rs.800,000/-.

- The package 4-B declared by the Government relates to the Load Bearing Structures in Corporation areas, Urban Development Authority areas, and municipalities in the state (except Bhuj, Bhachau, Rapar and Anjar in the Kutch District). The Government will provide assistance for reconstruction of collapsed / demolished houses at the rate of Rs. 2,800 per square meter up to a maximum built up area of 50 square meters, subject to an upper limit of Rs. 1.40 lakhs. For the repairs of damages, the assistance varies from Rs. 2,000 to Rs. 20,000 depending upon the nature of damages.
- Package 5 relates to rehabilitation in the four worst affected municipal towns of Bhuj, Anjar, Bhachau and Rapar in the district of Kutch with a stress on urban town planning. The financial assistance for reconstruction will be made available at the rate of Rs.3500/- per square meter, subject to an upper limit of Rs. 1.75 lakhs for a maximum of 50 square meters. The assistance for repair of multi-storey houses will vary from Rs.50,000/- to Rs. 8,00,000/ - depending upon the category of damages. The assistance for repair of non-multi-storeyed houses will vary from Rs. 8,000/- to Rs.45,000/- depending upon the category of damages. The assistance of Rs.7,000/- will be made available for completely destroyed huts.

These packages together address the needs of reconstruction and repairs for different kinds of structures in the entire earthquake-affected area. The guiding principle behind these packages of assistance is the minimum shelter for all the affected households and equity in the distribution of assistance.

The individual assistance for the reconstruction of a house is for a minimum of 30 square meters, and a maximum of 50 square meters. While it provides minimum area for living, it also gives slightly greater assistance to the house-owners who had bigger houses before the earthquake.

Secondly, the foremost priority of the program is to provide houses for living. In those cases, where the residential building was used for non-residential purpose, no assistance will be given to the owner / occupier of such house. The beneficiaries will be identified strictly on the basis of 'house replacement' needs.

The Government envisages that the individual grant for reconstruction is by way of assistance, and not compensation. If any beneficiary intends to avail the facility of loan, the Government will facilitate availment of loan from the banks or other financial institution at concessional interest rate to be fixed by such institutions. The Government will not provide any interest subsidy. The beneficiary has to clearly indicate the requirement of loan amount during the survey.

2.4 Implementation Arrangements

The Government envisages that a large number of state agencies, industrial houses, NGOs, professional groups, and expert organizations will participate in the reconstruction program, and support the community and beneficiaries, the prime movers of this program, in the reconstruction process.

2.4.1 Private-Public Partnership

The Government will actively seek the participation of the private sector (which also includes NGOs and other institutions of civil society) in the reconstruction program through institutionalizing the Private-Public partnership. It will bring resources and expertise from diverse civil society groups, expand stakeholding in the program, and encourage community participation. It will also ensure a better two-way information flow between the government and civil society about the implementation and impact of the program.

The Government will build upon the strategy of Private-Public partnership for implementing the relocation component. Even in case of in-situ reconstruction, the government will seek the cooperation of private sector in building private housing and public infrastructure on a cost-sharing basis.

The Government has evolved a detailed procedure and guidelines to scrutinize proposals received for the Private-Public partnership before entering into a final agreement at the Taluka / District level. The Government has appointed a State Advisory Committee, consisting of eminent members, to advise on strengthening the Private-Public partnership.

The following agencies are expected to participate in the reconstruction program through the Private-Public partnership arrangement:

Scheme	Implementing Departments	Departments/Agencies involved
Urban Housing	Urban Development and Urban Housing	Revenue Department Road and Buildings Department Housing and Urban Development Corporation (HUDCO) Municipal Corporations Industrial Houses NGOs Commercial Banks and Housing Finance Institutions Micro Finance Institutions
Rural Housing	Panchayat and Rural Housing	Revenue Department Roads and Buildings Department Rural Development Department District Panchayat Village Panchayat NGOs Industrial Houses Commercial Banks Micro Finance Institutions

2.4.2 Material Banks

The Government will set up material banks to enable the beneficiaries to get cement and steel at affordable price. The Government will procure building materials at reduced price by directly negotiating with the manufacturers, and provide exemption from the incidence of sales tax.

2.4.3 Protecting women's rights

The Government will protect women's rights and entitlement by registering the house in the joint names of the husband and wife. The Government will also ensure that the housing entitlements are passed on to widows rather than any other male member of the family.

2.4.4 Urban Rehabilitation

In Kutch, four towns—Bhuj, Bhachau, Anjar, and Rapar— have suffered large-scale devastation. The collapse of a large number of multi-storey buildings and limited availability of land in these towns has called for a different strategy for rehabilitation in these towns. Congested inner towns will be redeveloped, and the residents will be given the option of relocation. A number of residents living in multi-storey buildings will be asked to construct houses on new plots, in view of new town planning rules, development regulations, and reduced Floor Space Index. Though the communities will take decision regarding relocation or in-situ construction, reconstruction of houses on new plots in pursuance with the new development rules will inevitably result in expansion of the urban locations. The package for these towns provides a number of incentives for decongesting the city and developing a better urban landscape. In some of these towns, the beneficiaries will be given the option of acquiring a new house constructed by the government agency. In many places the beneficiaries will be offered new plots of a larger area. A number of public buildings will also be relocated. The urban infrastructure will be expanded and upgraded.

However, the construction in these towns will be owner-driven. The beneficiaries will organize the process of construction. The Government will facilitate the process by providing technical guidance, material specifications and technical supervision for building earthquake-resistant buildings.

2.4.5 Hazard-resistant Construction Technology

The Government has decided to reconstruct all the houses, public buildings, and related structures with seismic- and cyclone-resistant technology. As demonstrated by the earthquake, Gujarat is vulnerable to seismic hazard, with a large part of the state falling in seismic zone IV and V. In addition, the state faces the recurrent threat of cyclone. A sustainable mitigation strategy for these disaster risks would require application of hazard-resistant technology in the reconstruction and retrofitting of houses through a program of technical training and guidance and active dissemination of these construction technologies among people and also an institutionalised mechanism for technical inspections and quality audits.

3. Livelihood

Revival and restoration of livelihoods is one of the most important objectives of the earthquake rehabilitation program. The Government of Gujarat will implement a number of economic schemes and benefit packages to help the self-employed, artisans and entrepreneurs. These programs aim to extend short-term and long-term assistance to those sectors, which are vital to the economic development of Kutch. Handicrafts provide employment to a large number of people in Kutch, and therefore, an important policy goal is to provide maximum support for the revival of handicrafts. It has been decided to set up a revolving fund of Rs.15.00 crores for working capital assistance, and institute a subsidized loan scheme for self-employed groups and cottage industries. Similarly, the packages meant for farmers have been announced to help the farmer resume their agricultural operations immediately.

The Small Industries Development Bank of India (SIDBI) has announced a refinance scheme on concessional terms and conditions. The Government will facilitate finance for small-scale industrial units through the SIDBI's loan window. Special support packages comprising training and technology transfer will be developed for ceramic units.

Considering the importance of livelihood for the sustained recovery and rehabilitation of the people, the Government of India, United Nations, industry associations and many NGOs have joined these efforts. The Government also intends to seek active participation of commercial banks and microfinance institutions in the rehabilitation program. Microcredit will help women's groups to organize economic activities and diversify their income. The UNDP will support a special program for salt farmers to rebuild their saltpans with infrastructure for salt crystallization and marketing. The ILO will help organize vocational training programs for local artisans and workers.

The schemes that have been announced for livelihood support are as follows:

3.1 Short-term Recovery Assistance

- Provide loan up to Rs. 2 lakhs to self-employed people village, service and cottage industries through commercial banks and financial institutions with 60 percent subsidy.

- Provide tool kits priced up to Rs. 2,500 to self-employed workers and laborers for buying toolkits.
- Provide up to Rs. 5,000 for temporary construction of work shed to owners of cottage industry in addition to material assistance.
- Provide Rs. 14,000 for owners of weaving looms.
- Provide assistance up to Rs. 24,000 for handicraft and self-employed artisans to buy toolkits.

3.2 Long-term Economic Assistance

- Permanent work sheds of 20-25 square meters for each artisan whose house / work shed has been fully destroyed, with 100 per cent Government assistance.
- Formation of Rural Industries development center at 50 locations for providing infrastructural assistance at a cost of Rs. 4.5 crores.
- Formation of 24 mini Handloom-Handicraft parks in the affected areas at a cost of Rs. 1 crore each with 50 percent Government assistance.
- 8 District-level Handloom-Handicrafts parks at a unit cost of Rs. 2 crores with 50% Government assistance.
- Creation of a Revolving Fund of Rs.15.00 crores for Rehabilitation of self employed in village and cottage industries.
- In order to provide infrastructure for artisans in the same place in Village and Cottage industries, institutions will be provided with a subsidy of maximum Rs.9.00 lakhs, and for the loan availed by the institution for creation of other facilities interest subsidy up to Rs.5.00 Lakhs for 2 years.

3.3 Assistance for Revival of Agriculture

- An immediate assistance up to Rs. 15,000/- for inputs and implements.
- Assistance for damaged and destroyed on farm structures up to Rs.2500/- and Rs.10000/- respectively.
- Assistance for damaged or destroyed irrigation assets to the extent of 50 % or 60% of the restoration cost and limited to Rs. 1.00 lakh.

3.4 Assistance for Revival of Industry

- Special package for salt farmers with compensation up to Rs.5,000/
- Assistance of 60 per cent of repair/reconstruction cost for all the

affected tiny, small, medium and large-scale industries in seismic zone IV and V with a maximum limitation of Rs. 60.00 lakhs; outside these zones, the assistance will be 50% with a limit of Rs. 30.00 lakhs.

- Assistance of up to Rs. 20.00 lakhs in Zone IV and V and Rs.10.00 lakhs in other area for two years towards interest liability of existing loans from financial Institutions.
- Electricity charges to be levied on actuals and not on minimum charges for affected industrial units.
- Stamp Duty exempted on the financial transactions related to institutional finance taken in connection with schemes mentioned above.
- Lease rent and royalty exempted on salt production in affected areas.
- Royalty on building materials produced and utilized in Kutch exempted for 1 year
- Government has also announced relief to trade and service sector units, shops Restaurants, nursing homes etc. The assistance is as follows.

a) Lump sum assistance of Rs. 3000/- for cabin owners and Rs.6000/- for shop owners in Seismic Zone IV & V.

b) For those affected traders businessman, professionals who invest above Rs.2.00 lakhs a maximum subsidy of Rs.1.2 lakhs is seismic zone IV & V, while maximum Rs.1.00 lakh in other affected areas will be granted by the Government. Interest subsidy upto Rs.1.00 lakh per year for two years will be paid by the Government. Those who invest in health/ medical services will be eligible for interest subsidy for a maximum of Rs.2.00 lakhs per year for two years.

The Government has also decided to revive tourism sector, an important source of employment in the Kutch region. It will provide assistance of 60 percent of the cost of repairs/ reconstruction for tourism units in seismic zone IV and V with a maximum limit of Rs.60.00 lakhs. The Government will also provide 80 per cent of the cost of repairs/ reconstruction for heritage hotels with a maximum of Rs.60.00 lakhs. A committee will be formed to study the heritage and restoration of historical sites in Kutch.

In order to create long term employment opportunities and for overall economic and industrial development of Kutch, a Special Incentive Scheme has been formulated by the Government, which is effective from 31-7-2001 and will remain operational till 31-10-2004. As provided in the scheme, new Industrial units being established in Kutch during operational period will be granted Sales Tax Exemption or deferment, which ever the unit, prefers, for the period and at the rates as mentioned below:

(a)	Eligible investment upto 10 Crores	100 %	5 years
(b)	Eligible investment of more than Rs. 10 crores but upto Rs. 50 crores	//	7 years
(c)	Eligible investment of more than 50 crores	100 %	10 year

The incentives offered are subject to certain conditions as mentioned in the GR. The scheme alongwith the scheme of Excise Exemption declared by the Central Government vide their Notification dated 31-7-2001 will help in long term economic and overall revival and development of Kutch district.

The Government has already taken steps to disburse short-term economic assistance. An integrated rehabilitation strategy works both ways. Continuous support for livelihood will provide security of minimum consumption for the households and enable them to undertake shelter construction. On the other hand, the construction of shelter will allow the beneficiaries to resume their home-based activities. It is also expected that the reconstruction program on such an extraordinary scale will produce significant opportunities for employment generation.

4. Infrastructure

Under the Gujarat Earthquake Reconstruction and Rehabilitation Program, the Government of Gujarat will implement an ambitious program of infrastructure rehabilitation and improvement. It will cover both the lifeline and utility infrastructures. The objective of the program is to improve infrastructures beyond the pre-earthquake level and to reduce their susceptibility to future disasters. It will involve application of disaster-resistant technology in repairs, strengthening and reconstruction, with a view to build greater resilience and redundancy in the system.

4.1 Dam and Irrigation

The Government of Gujarat has constituted two Dam safety panels, one each for Kutch and Saurashtra region. These Panels will physically visit dam sites and suggest rectification measures for repairs and strengthening of dam embankments.

In the short-term, it was planned to accomplish before the Monsoon:

- Major Repairs of three drinking water supply dams in Kutch;
- Repairs of 19 medium and 160 minor irrigation schemes in Kutch; and
- Repairs of 67 dams in Saurashtra for improving their safety

In the long-term, it has been planned to undertake soil sampling and testing to determine the relevant soil parameters to be adopted in the reconstruction / strengthening of dams to make them seismically more safe.

4.2 Roads and Bridges

A short-term program of repair and strengthening of road infrastructure has been planned for implementation. The first phase will focus on the emergency rehabilitation of roads with particular emphasis on bridges and other structures while the second phase will focus on the rehabilitation and reconstruction of roads and structures. Following works have been planned under this component:

- Phase I: Repair and Strengthening of 200 Km State Highway roads, 57 Major bridges, 115 Minor bridges and 186 other structures.
- Phase II: Repair & Strengthening of 700 Km of roads, and associated structures.

The objective is to restore the roads and bridges to their pre earthquake condition and strengthen them to withstand increased load due to heavy traffic engaged in relief and reconstruction work. In the long-term, to be implemented over three to five years, it has been planned to upgrade the road network to include earthquake- and cyclone-resistant features.

4.3 Power

In the short term, the Government will focus on the repair and reconstruction of substations and accommodation of operating staff. The repair and reconstruction will be carried out through the application of

disaster-resistant technology. In the medium term, the Government proposes to replace equipment, transmission lines and transformers to ensure reliable functioning of the power transmission and distribution systems, and to improve systems efficiency. Components included in the rehabilitation of power supply system are as follows:

- Immediate reconstruction of the damaged control rooms and sub station buildings
- Use of improved technology (SCADA) in the replaced transmission and distribution network
- Computerized linking of various Gujarat State Electricity Board offices in Kutch
- Replacement and installation of new equipments to improve quality and reliability of power supply
- Upgradation of low tension agriculture lines of over 3000 kilometer to high tension

It is expected that all the activities planned in power sector will be completed within two to three years.

4.4 Public Buildings

The Government will undertake reconstruction and repair / retrofitting of a large number of damaged public buildings, which include buildings occupied by the general administration, police and panchayat offices. All the buildings will be reconstructed and retrofitted with the application of disaster-resistant technology, improving their performance against cyclones and earthquakes.

The program will also include a number of buildings that are classified as heritage structures. The retrofitting of heritage buildings will be undertaken through application of special conservation measures.

4.5 Water Supply

Restoration of water supply system in villages and towns has become extremely important for ensuring health and hygiene in the earthquake-affected areas. Immediately after the earthquake, the Government has ensured a regular supply of water through tankers and immediate repairs to water pipelines. The Government has also planned a range of medium term measures aimed at ensuring bulk water supply to 14 towns and bulk supply as well as internal distribution in all the

affected 1300 villages. This involves repairing / replacing damaged properties to achieve functional equivalence of the destroyed capital assets (tubewells and pumps, pipeline repairs) and, in some cases, their upgradation to mitigate higher risks. The following activities have been planned under this component:

- Reconstruction of village level facilities like storage systems;
- Reconstruction of water distribution networks;
- Strengthen water pipeline transmission systems; and
- Upgrade pumping and captive power generation system.

It is expected that all the works will be completed within a period of two years.

5. Social and Community Development

The Government of Gujarat will implement a number of programs for rebuilding social and community services and regenerating social capital in the earthquake-affected areas. These services were very badly hit by the earthquake, and a complete restoration of these services is critical for developing a sense of well-being among the communities. The program, however, will use this opportunity of reconstruction to upgrade these social services in the sector of health, education and women's development. The provision of better social support and protection through schemes in health, education and other social services, with a special focus on women, will have an empowering impact on the people in course of rebuilding their lives.

5.1 Health

Immediate restoration of basic health care services has become the most important priority in the context of large-scale injuries and disability, caused by the earthquake. A large number of people need medical assistance on a continuous basis. It is even more necessary for the vulnerable groups: women and children. However, most of the health infrastructure in Kutch and other worst-affected districts have been badly affected. Immediately after the earthquake, many of these services have been started in temporary / semi-permanent structures. The Government has also commenced the construction of pre-fabricated wards and units for Primary and Community Health Centers.

In the short-term, the following services will be provided:

- Immediate emphasis on hygiene and sanitation, including mass immunization, with the UNICEF and WHO assistance, to avoid outbreak of epidemic
- Orthopedic treatment for the injured
- Strengthening of mental and psychological health services in all affected Talukas
- Resumption of Aanganwadis with the assistance of the UNICEF, Save the Children, and Indian Red Cross

In the medium term, the following activities have been planned:

- Construction of all the health sector buildings including Aanganwadis through application of earthquake- and cyclone-resistant technology,
- Orthopedic Rehabilitation with a center at Bhuj, and
- Reconstruction of Civil Hospital at Bhuj

The Government will also organize training Programs for doctors and para-medical personnel in orthopedic rehabilitation, prosthetics and physiotherapy, and emergency medicine.

For psychological healing and support, counselling sessions through trained staff and volunteers will be organized in consultation with the experts. The program will seek the participation of specialized institutions in mental health and the NGOs for services in psychological counselling.

5.2 Education

Resumption of educational institutions in the earthquake-affected areas will help the process of bringing normalcy, both for the parents and children. The communities are strongly interested in sending their children to attend schools at the earliest. There is a great deal of support for education from the Government of India and participating NGOs. There is also a perceived need for counseling services for affected students and teachers.

Considering large-scale destruction of schools, the reconstruction and repair of schools has become one of the most important components of the program. The Government has arranged to commence these schools with temporary structures and tents provided by the UNICEF. The

Government has also activated the village civil works committees in the earthquake-affected areas to reconstruct and repair primary and secondary school rooms. While these short-term measures are being taken, the Government in collaboration with the NGOs has planned a large-scale reconstruction program for schools as follows:

- Construction of 8,000 primary school rooms
- Reconstruction of primary school rooms through the District Primary Education Project funds
- Reconstruction and repair of 405 Secondary Government and aided schools through the Prime Minister's Relief fund
- Reconstruction and repairs of damaged colleges
- Reconstruction of Technical institutions with improved facilities

Most of these activities are planned to be complete by the end of 2002.

5.3 Social Justice and Empowerment

Orphans, widows, old persons and physically disadvantaged are the most vulnerable group. The Government has a special responsibility to provide support for the rehabilitation of these groups through special programs and interventions. Some of the initiatives that have been planned specifically for different vulnerable groups are as follows:

- Orphans: Compensation against death of parents, Surveillance mechanism, Child Lines, Ashray Grih, Bal Kutirs, Bâlika Kutirs
- Widows: Widow Pension, Livelihood & Vocational Training, Working Women Hostels, Creches, etc.
- Old Persons: Old Person Pension Scheme, Old Age Homes in Bhuj, Bhachau & Anjar
- Disabled: Mobile vans, Supportive Devices through Blind People's Association, Artificial Limb Fitting Program, and Psycho-socio counseling.

The Government has set up a revolving fund of Rs.15 crores to provide sustained support to the widows and orphans through special programs.

In addition to these programs, the Government of India through its various agencies has announced support for livelihood and education of scheduled castes, minorities, safai kamdars, and backward classes.

5.4 Women's Empowerment

An important segment of the rehabilitation program will consist of programs aimed at women's empowerment through training, education and income-generation. The Government proposes to support a large number of training programs for women in handicrafts and other economic activities. These training programs have already commenced. Provision of toolkits to these women through various economic packages will add synergy to these programs.

A large number of social and economic activities will be organized through women's self-help groups. The program will promote formation of a large number of self-help groups in the earthquake-affected area, and their linkage with savings and credit mechanisms. The Rashtriya Mahila Kosh, commercial banks, and microfinance institutions will provide financial support to these groups, and organize supportive services for their economic programs.

In the earthquake-affected area, a wide range of services and skills are required. There is a great demand for women Aanganwadi workers, social facilitators, nurses, masons, and carpenters for rebuilding social services and shelter. Extensive training programs through social work institutions, NGOs and trade schools will provide sustenance to a large number of women in the area, in addition to providing vital social services in the context of rehabilitation.

A social impact assessment will be conducted at different stages of earthquake rehabilitation. The findings of the social impact assessment will guide the social development policies continuously. The Government will also consider strengthening village Panchayats through which various services could be delivered in a more integrated way.

6. Community Participation

Community participation in the rehabilitation program is an empowering process, which will enable the community to take decisions and implement the reconstruction and rehabilitation program in accordance with its priority and choice. The need for community participation also arises from the concern of equity and accountability. It will enable socially and economically weaker sections to claim their entitlements in the program. It will also make the implementing agencies more accountable for the quality of the implementation.

In the process of consulting all the sections of community, a consensus develops on the main issues and priorities of rehabilitation program, such as reconstruction techniques, organization of plots, building materials, artisans and masons, and civic infrastructure. It generates a strong sense of ownership of recreated assets, and satisfaction over their collective accomplishments. The Government therefore recognizes the strengths of an institutionalized mechanism of community participation, and considers it the most cost-effective method of implementing the rehabilitation plan.

6.1 Objectives

a. The implementing agencies must ensure participatory processes in their strategic planning, policy formulation, and project implementation in respect of housing, social and economic rehabilitation;

b. All the members of the community get full opportunity to participate in the Consultative process at the level of community or village and their proposals and plans for housing, social and economic rehabilitation must be reflected in the village rehabilitation plan;

c. All the villages and communities will develop their own rehabilitation plan, based on their needs and entitlements, and ensure that such a plan is appropriate for the local conditions and life-style;

d. The communities must get opportunities to interact with all the government and non- Government agencies, and implement the reconstruction program with the best professional skills and knowledge;

e. The communities must ensure the quality of social and economic rehabilitation planned for their village / community; and

f. The level and quality of community participation in the entire project area is uniformly high.

6.2 Mechanisms of Community Participation

The Government of Gujarat has constituted a three-tier structure for facilitating community participation at different levels of implementation. These structures are: Gram Navrachna Samiti at the village level, District Advisory Committee at the district level, and State Advisory Committee at the state level. The composition of these structures is as follows:

6.2.1 Gram Navrachna Samiti (GNS)

Chairman	Dy. Collector/Mamlatdar/ TDO/Dy Mamlatdar/ Dy
Members	TDO/ ATDO
	Sarpanch or Administrator
	Ex-Sarpanch
	Woman Member
	SC / ST member
	Member from minority community, if any
	Head Master of Primary School
	NGO Representative
Member-Secretary	Talati

The Gram Navrachna Samiti (GNS) will be responsible for the overall supervision of the reconstruction program in the village. It will ensure representation of all the segments of village community in the finalization of design, building materials and construction technology.

The GNS will, however, be guided by the Gram Sabha, a plenary meeting of all the villagers. The Gram Sabha will be made more active in the reconstruction process. All the reconstruction and rehabilitation policies will be discussed and decided among the villagers collectively in the Gram Sabha.

6.2.2 District Advisory Committee

Chairman	In-charge Minister of the District
Vice-Chairman	Collector
Members	MPs and MLAs from the district
	District Panchayat President
	District Development Officer
	Executive Engineer
	Social Welfare Officer
	5 (Five) representatives of NGOs, as decided by the Collector
	Director (District Rural Development Agency)
Member-Secretary	Additional Collector

The District Advisory Committee will coordinate the Private-Public Partnership program, address all the problems and constraints in the implementation, and ensure that the norms laid down for reconstruction are being observed.

6.2.3 State Advisory Committee

The State Advisory Committee, which has distinguished members from different fields, will advise the Government of Gujarat on all the issues of reconstruction and rehabilitation policy and implementation. The Chief Executive Officer, GSDMA is the convener of this Advisory Committee.

In all the four towns of Kutch-Bhuj, Anjar, Bhachau, and Rapar-the Area Development Authorities (ADAs) have been constituted to implement the reconstruction program. The ADAs will follow a participatory approach to urban reconstruction through formal public consultations and participation of private sector and NGOs. The ADAs will hold public consultations at regular intervals and ensure that the decision-making process is characterized by substantial community participation.

7. Long-term Disaster Preparedness

In view of terrible human and economic consequences of the recent natural disasters in Gujarat, it has been decided to implement a long-term disaster management plan for the state. It will be a comprehensive multi-hazard program to be implemented along with the reconstruction. The Government will provide a strong institutional basis for disaster management activities through the Gujarat State Disaster Management Authority (GSDMA). Necessary statutory and regulatory changes will be initiated which will enhance the GSDMA's capacity to deal with disasters in coordination with other agencies and the NGOs. The broad areas that will be covered through the disaster management plan will be as follows:

7.1 Emergency Preparedness and Response

The Government will initiate immediate and medium term measures to improve the state's capacity in emergency preparedness and response. The program will aim at improving early warning system, emergency communications, and evacuation and shelter plans. The emergency response plans will be developed immediately keeping in

view hazards like industrial and chemical disaster risks and cyclone. A more comprehensive response plan will be made operational through the Taluka and district-level disaster management plans, a better inventory of resources, and a network of communications and control rooms.

7.2 Hazard Mapping and Monitoring

The Government will prepare a comprehensive disaster risk analysis of the state. Based on socio-economic indicators of the state, a vulnerability assessment report will be prepared. Risk and hazard mapping will be accompanied by the improved monitoring systems of seismic and hydro-meteorological risks. The Government of Gujarat will also seek the assistance of the scientific agencies of the Government of India in improving instrumentation for better hazard monitoring. The Government will consider, wherever necessary, micro zoning seismically most vulnerable areas in the state for better land use plan and building regulations.

7.3 Community-based Disaster Mitigation

The Government will implement a range of mitigation programs, which reduce the vulnerability of communities and improve their capacity to withstand disaster risks. These mitigation programs will be designed in the context of local agro-climatic situation and livelihood patterns in different parts of the state. The application of appropriate building technology in seismically high-risk zones is one of the important priorities of the state policy. The state also proposes to step up its efforts for water conservation, rain water harvesting, and food for work program to deal with the frequent drought situations in the state. In the coastal areas exposed to the risks of cyclone, it is planned to support social forestry and construction of community-owned cyclone shelters to reduce the disaster risk. The Government will seek the help of NGOs, private sector, rural banks and microfinance institutions in implementing many of the community-based mitigation programs.

Mechanisms of risk transfer through the intermediation of financial institutions have become extremely important. The Government will explore the possibility of increasing the insurance coverage of private properties and critical infrastructure in the state.

8. Institutional Arrangements for Project Implementation

The enormous challenge of implementing an emergency reconstruction program requires an efficient and responsive institutional mechanism. The Government recognized it by setting up the Gujarat State Disaster Management Authority (GSDMA), immediately after the earthquake. The GSDMA is registered as a society under the Societies Registration Act, which gives it autonomy and flexibility in implementing a highly complex reconstruction program, and is equipped with the powers required for implementation.

The main functions of the GSDMA are as follows:

1. To coordinate and implement the reconstruction and rehabilitation program comprising the components of housing, infrastructure, economic and social rehabilitation, and other related programs.
2. To maintain the standards of quality in the program implementation and establish mechanisms of accountability and transparency in the decision-making process.
3. To manage and administer the Gujarat Earthquake Rehabilitation and Reconstruction Fund.
4. To raise and mobilize resources from external agencies and national sources for the implementation of the reconstruction and rehabilitation program.
5. To prepare and implement disaster management plans at the Taluka, district, and state level, and ensure effective coordination with the state agencies and NGOs.
6. To support all the programs which relate to disaster risk reduction and mitigation at the individual and community level.
7. To support research, training and capacity-building programs in the government and non-government sector in all aspects of disaster preparedness and response.

8.1 The GSDMA Structure

The GSDMA, chaired by the Chief Minister, has nine members drawn from the Cabinet and senior officials. The Additional Chief Executive Officer (CEO) serves as its member-secretary. The CEO, supported by two Additional CEOs, exercises all the executive powers

for the implementation of works and procurement of goods and services. As the GSDMA has been just constituted, strengthening its institutional capacity is the most important priority. A number of management, technical, and accounting consultants have been engaged to support the GSDMA in its regular functioning.

The State Advisory Committee consisting of distinguished experts from different fields, will guide the GSDMA on all aspects of reconstruction policy and implementation. Within the Government, a Central Implementation and Review Group, under the Chairmanship of the Chief Secretary, has been formed, which will review and monitor the program implementation on a regular basis.

At the district level, the district administration presided by the Collector will be responsible for the implementation of the program. An advisory committee headed by the In-charge Minister of the district will guide the district administration in the program implementation. At the Taluka-level, Additional Collectors/Additional District Development Officers/Deputy Collectors with delegated powers of the Collector and District Development Officers will be responsible for program implementation, while at the village-level, an officer of the rank of Deputy Mamlatdar will coordinate the implementation.

8.2 Implementing Agencies for Sectoral Programs

A number of line departments, referred to as Implementing Agencies (IAs), will implement sectoral programs. The list of IAs for different sectors is given in the following table:

Sector	Department
Housing	Panchayat and Rural Housing UD & UHD Revenue Department Roads and Buildings
Livelihood	Industry Agriculture Social Justice and Empowerment
Health	Health and Family Welfare Roads and Buildings
Education	Primary Education Higher Education Technical Education

Sector	Department
Dam Safety and Irrigation	Irrigation and Water Supply
Public Buildings	Roads and Building, Panchayat Home, Sports, Youth & Cultural Affairs, Police department
State Roads and Bridges	Roads and Buildings
Power	GEB Department of Energy & Petrochemicals
Rural Water supply	GWSSB Department of Water Supply
Urban Infrastructure	UDD & GUDCO
Community Participation and Community Development	GSDMA
Disaster Management Capacity Building	GSDMA

The GSDMA will be responsible for coordinating with the IAs. The GSDMA will also ensure that all the IAs maintain quality standards and observe the application of disaster-resistant technology in their construction through a system of external technical audit.

8.3 Implementation Arrangement for Reconstruction in four towns of Kutch

For the urban segment of the reconstruction and rehabilitation program, the Urban Development Department (UDD) has the responsibility of implementation and coordination. The UDD has designated the Gujarat Urban Development Company (GUDC) for the implementation of housing and infrastructure.

The GUDC will implement the program in two phases. The first phase corresponds to the preparation of the draft development plan for four towns of Anjar, Bhuj, Bhachau and Rapar by the Town Planning Department of Gujarat. The second phase proposes the design and supervision for rehabilitation and reconstruction of urban infrastructure.

The Area Development Authorities (ADAs) have been constituted in each of four worst affected towns— Bhuj, Anjar, Rapar, and Bhachau. The ADAs, headed by senior officers of the Government, will adopt a

systematic and coordinated approach to the reconstruction through formal public consultations and expert planning inputs. The ADAs will enforce development regulations in respect of these towns and develop / upgrade urban infrastructure. The municipal authority of these towns will take over the administration of all the municipal services upon the conclusion of the reconstruction program.

A Technical Advisory Cell (TAC) will be constituted within each ADA. The TAC will consist of technically competent structural engineers and architects. The TAC will scrutinize, suggest modifications and recommend approvals for structural designs to be adopted by the ADA.

Annexure

Members of State Advisory Committee

1.	Prof. Y.K. Alagh (Chairman) Vice-Chairman, Sardar Patel Institute of Economic And Social Research (SPIESR), Ahmedabad.	Economics
2.	Smt. Ela R. Bhatt, Organizer, Self Employed Women's Association, (SEWA), Ahmedabad	Voluntary Agency
3.	Shri Karshanbhai Patel Chairman, Nirma Foundation Ahmedabad	Industry/ Voluntary Agency
4.	Shri V. Suresh Chairman & Managing Director, HUDCO, New Delhi	Housing Finance
5.	Dr. Naresh Ved Vice Chancellor, Gujarat University, Ahmedabad	Education
6.	Shri. Anil C. Shah Chairman, Development Support Centre, Ahmedabad	Voluntary Agency

7.	Shri K.V. Bhanujan Chairman, Gujarat Pollution Control Board, Gandhinagar	Administration
8.	Prof. H.M. Shivanand Swami Director, School of Planning, Centre for Environment & Technology, Ahmedabad	Architecture
9.	Prof. Dr. Dileep Mavlankar IIM, Ahmedabad	Health Management
10.	Shri. Sunil Parekh CII, New Delhi	Industry
11.	Dr. Sudarshan Iyengar Gujarat Institute of Development Research Ahmedabad	Voluntary Agency
12.	Shri Kirtee Shah Hon.Director , Ahmedabad Study Action Group, Ahmedabad	Voluntary Agency
13.	Prof. Anil Gupta IIM, Ahmedabad.	Management

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