

# BIHAR VIKAS MISSION

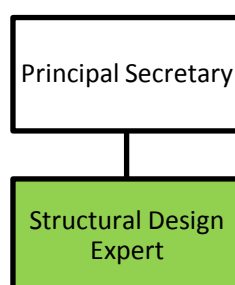
## Job Description



### 1. General Information:

<b>Position Title:</b>	<b>Structural Design Expert</b>
<b>Reports to:</b>	<b>Principal Secretary – Building Construction Department</b>
<b>Department:</b>	<b>Bihar Vikas Mission</b>
<b>Job Code:</b>	

### 2. Organization Chart



### 3. Key Accountabilities

#### Strategizing and Expert Advisory

- Design a strategic plan and roadmap for execution of various construction and infrastructural development programmes to achieve the objectives under the Disaster Risk Mitigation Plan for the concerned Department
- Provide scientific knowledge and technical know-how in design and construction engineering of high-rise buildings, critical lifelines and industrial facilities etc., to increase the tenacity of these structures to withstand the impact of medium to high intensity earthquakes
- Plan and support implementation of the framework to assess the grades of damageability of the various existing buildings under different probable earthquake intensities postulated in the various seismic zones to enable informed decision making regarding the varied nature of construction works in the state
- Review and ensure that all major construction works in the state are in alignment with and duly incorporate the BIS seismic codes for construction and ensure that the plans / designs of the Government construction are in accordance with the BIS codes zone 4
- Guide evaluation of the seismic and structural safety of the existing life-line buildings such as hospitals, water supply towers, fire stations, schools with a capacity of 1000 or more students, main administrative buildings etc. and take necessary steps for retrofitting
- Lay down mandates for private builders/developers to carry out retrofitting of all private hospitals, cinema halls, shopping malls and multi-storied residential and office complexes
- Facilitate capacity building of the Municipal bodies / Urban local bodies to ensure seismically safe construction by training of the structural Engineers in the state PWDs
- Assist in establishment of Hazard Safety Cells in each district to ensure compliance to building byelaws and safe construction practices, creation of a framework to conduct certification courses for engineers and architects
- Establish and build partnerships with important and relevant national level bodies and organizations like NDMA, NIDM, NDRF, SDMA, SDRF and SIDM, DDMA) etc. and leading private organizations

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to garner support for infrastructural development of disaster preparedness and risk mitigation measures

### Continuous Improvement

- Identify opportunities for continuous improvement of systems, processes and practices taking into account international and national best practices, in order to facilitate cost optimization and productivity improvement

### Policies, Systems, Processes & Procedures

- Recommend improvements to functional procedures and follow all relevant departmental policies, processes, standard operating procedures and instructions so that work is carried out in a controlled and consistent manner

### Related Assignments

- Perform other related duties or assignments as and when required

## 4. Qualifications and Experience

### Essential

- Master's degree or higher in Structural Engineering / Civil Engineering
- Minimum 15 years of post-qualification experience in construction / infrastructure sector with at least 7 years of experience in planning and implementing structural engineering programs for various types of buildings and infrastructure for earthquake and disaster risk mitigation **OR** Retired officers from Government / relevant Industry / Defence Services / Paramilitary with minimum last 10 of years of experience of managing / working on large scale design and engineering projects in construction sector with exposure to improving structural safety and disaster risk mitigation

### Preferred

- Less than 70 years of age as on 1st January 2017
- Experience of managing / working on state and national level large scale projects (budget value of more than Rs. 2500 crores) with proven records of execution of the project
- Proven track record of working with state / central government / bilateral / multilateral organizations on programs of similar nature and size, (as IMD, NDMA, SDMA's, SERC etc.)
- Proven track record of designing and / or engineering large scale earthquake resistant structures for earthquake prone areas
- Certificates / Diploma / Courses in Seismology or Earthquake Engineering from a Government of India recognized institute
- Honors / Awards / discourses / recognized publications in relevant area will be an added advantage

## 5. Knowledge and Other Skills

- In-depth knowledge of hazard environment, build environment and policy environment in terms of earthquake, its mitigation and probable impact
- Extensive field experience in disaster environments, disaster risk reduction and in-depth knowledge of related issues in the country
- High degree of technical knowledge of disaster prone developing country contexts. Knowledge of Bihar would be an advantage
- Expertise in interpreting of 2D and 3D seismic data
- Thorough knowledge of main BIS standards related to earthquake risk mitigation plans (IS 1893 (Part 1), IS 1893 (Part 4), IS 4326:1993, IS 13827:1993, IS 13828:1993, IS 13920:1993 , IS 13935:1993)
- Fluency in written and spoken English and Hindi