



F. No. 01-40/2023-Admn
Government of India
NATIONAL DISASTER MANAGEMENT AUTHORITY
NDMA Bhawan, A-1, Safdarjung Enclave, New Delhi -110 029
Tel. No. 26701700



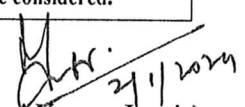
Sub: Advertisement for the various positions in National Disaster Management Authority (NDMA) on contract basis.

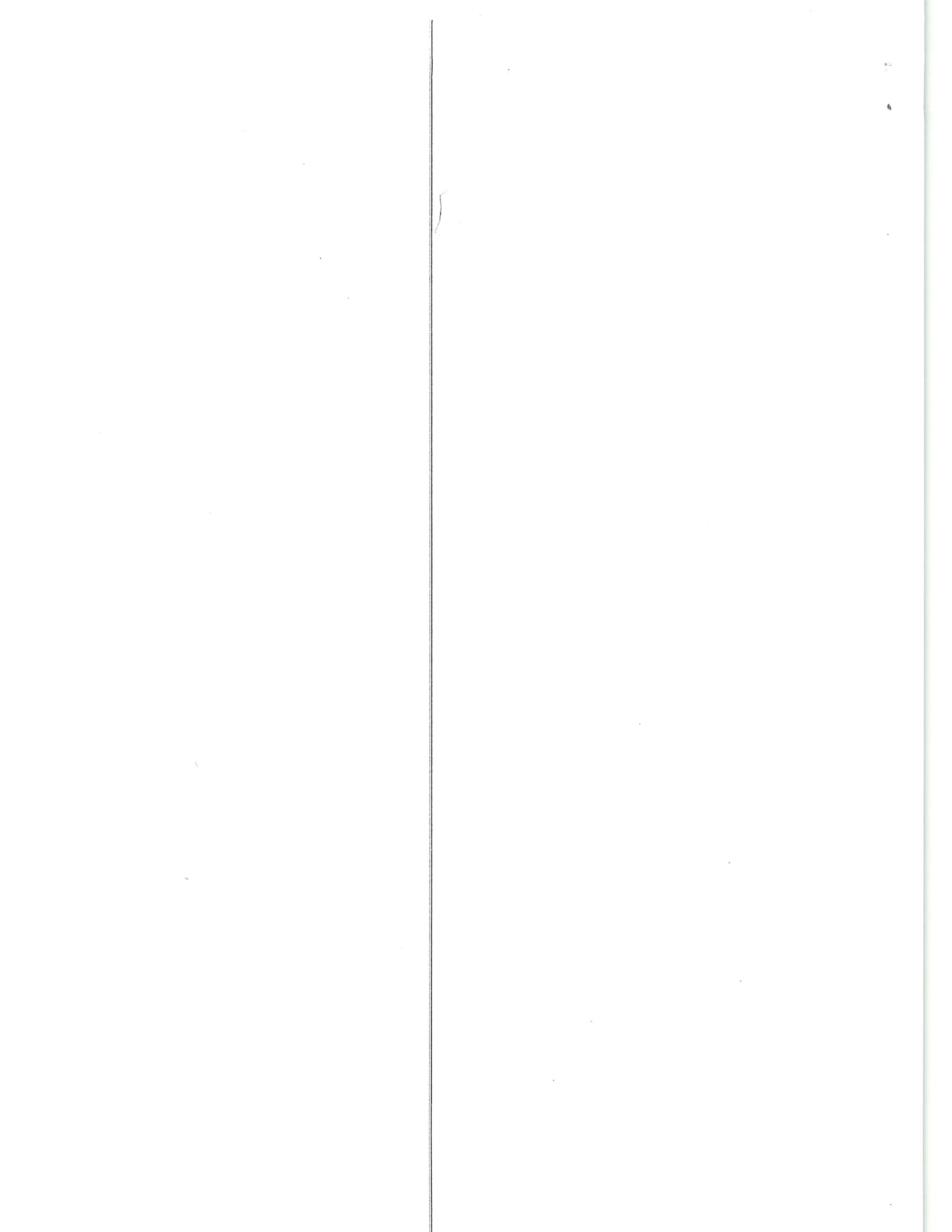
NDMA invites applications from Indian national having requisite qualification and experience for following positions:-

Sl. No.	Name of Position	Post in Nature	No. of Vacancy	Educational Qualification	Post Qualification Experience	Max. Age Limit
1.	GIS Project Coordinator/ Project Manager	Contractual	01 (One)	Essential :- Master's degree (M.Tech/ ME/ M.Sc.) in IT/ Computer Science or in Remote Sensing/ Geo informatics or in Statistics/ Mathematics/ Data Science or any other related disciplines with specialization in GIS or MCA	<ul style="list-style-type: none">4 years of experience in the relevant sector	Not beyond 62 years
2.	GIS Executive / Developer	Contractual	01 (One)	Essential :- Master's degree (M.Tech/ ME/ M.Sc.) in IT/ Computer Science or in Remote Sensing/ Geo informatics/ Geography/ Geology/ Environmental Science or any other related disciplines with specialization in GIS	<ul style="list-style-type: none">Must have 2 years of experience in the relevant sector	Not beyond 62 years
3.	GIS Database Administrator	Contractual	01 (One)	Essential :- Bachelor's degree (B.Tech/BE) in IT/ Computer Science or MCA or MSc in IT/ Computer Science with knowledge of Geospatial data	<ul style="list-style-type: none">Must have 2 years of experience in the relevant sector	Not beyond 62 years
4.	GIS Data Entry Operator/ Data Support Associate	Contractual	01 (One)	Essential :- BE/ BTech/ BSc in IT/ Computer Science or MSc with specialization in GIS/ Geo informatics or Remote Sensing or MCA	<ul style="list-style-type: none">Must have 2 years of experience in the relevant sectorComputer proficiency and commonly used packages like MS office etc.	Not beyond 62 years
5.	GIS System Administrator	Contractual	01 (One)	Essential :- Bachelor's degree (B.Tech/BE) in IT/ Computer Science or MCA or MSc in IT/ Computer Science with knowledge of Geospatial data	<ul style="list-style-type: none">Must have 2 years of experience in the relevant sector	Not beyond 62 years

- Remuneration Band** Rs. 65,000/- pm for GIS Project Coordinator/ Project Manager, Rs. 52,000/- pm for GIS Executive/ Developer, Rs. 45,500/- pm for GIS Database Administrator and Rs. 32,500/- pm for GIS Data Entry Operator/ Data Support Associate, Rs. 45,500/- pm for GIS System Administrator.
- The detailed terms and conditions and eligibility criteria (educational qualifications, age, experience etc) for engagement of above positions are indicated in the Term of References (ToR) of the above positions and may be seen on NDMA website at <http://ndma.gov.in>.
- Essential /desirable educational qualifications and experiences will be verified with original certificates.
- Interested individuals may send their bio-data in the prescribed proforma available on the NDMA website alongwith statement of purpose (SOP) in maximum 250 words, recent passport photograph and copies of certificates establishing their educational qualification, experience to Shri Abhishek Biswas, Under Secretary (Admn.), National Disaster Management Authority, NDMA Bhawan, A-1, Safdarjung Enclave, New Delhi-110029, Phone No. 011-26701700 within **20 days** from the date of publication of advertisement in the employment news.

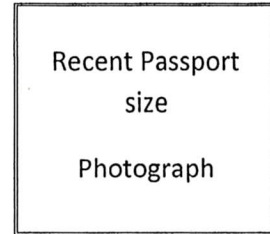
Important note: Separate applications are required for each position/discipline (Field). Incomplete application will not be considered.


(Manoj Kumar Jangir)
Under Secretary (Admn)



Application of engagement for GIS Project in the National Disaster Management Authority.

Post applied for : _____



(1) Name : _____

(2) Father's Name :- _____

(3) Sex (Male / Female) : _____

(4) Date of Birth _____ Age _____ Years.

(5) Category : SC/ST/OBC/General/Any Other (Pls. specify) _____

(6) Contact Address :- _____

(7) Permanent Address :- _____

(8) E-mail : _____ Phone _____

(9) Education (College education in reverse chronological order) (Pls add rows if required) :

S No.	Year	Degree/ Diploma	University/ Institution	Division/ GPA	Subjects

(10) Experience (in reverse chronological order) (Pls add rows if required)

S No.	Period			Organization / Institution	Nature of work	Accomplishments
	From	To	Total			

(11) Trainings: _____

(12) Publications:- _____

(13) Awards / recognitions: - _____

(14) Membership of Professional Bodies/ Associations: - _____

(15) Retired Government staff (Pls indicate Pay/Pay band) :- _____

(16) References (Name, Designation, Institution, address, e-mail and Phone Number) :-

(1) : _____ (2) : _____

I have carefully gone through the advertisement and I am well aware that the information furnished above is duly supported by the documents in respect of Essential Qualification/ Work Experience submitted by me will also be assessed by the Selection Committee at the time of selection for the position. The information/ details provided by me are correct and true to the best of my knowledge and no material fact having a bearing on my selection has been suppressed/ withheld.

Date _____

Signature _____

* Application form is to be submitted alongwith Statement of Purpose (SoP) in 250 words (maximum) and copies of certificates establishing educational qualifications, work experiences, trainings participated etc.

Terms of Reference for GIS System Administrator

1. General overview -:

The National Disaster Management Authority (NDMA) is the apex-level institution for disaster management in India. The Disaster Management Act, of 2005 provides for setting up the NDMA along with a host of other institutions at the national, state, and district levels. Chaired by the Prime Minister of India, the NDMA is mandated to lay down the policies, plans, and guidelines for disaster management, and implement various programs related to several aspects of disaster management. Since its inception, the NDMA has implemented several initiatives and programs on strengthening disaster preparedness and mitigation, improving disaster response and recovery, and supporting capacity-building activities in the country.

2. Purpose -:

National Disaster Management Authority (NDMA) has identified GIS as a major thrust area for the effective and efficient management of disaster risk. NDMA takes all possible measures for implementing geospatial infrastructure within the organization itself, covering all the sectors with a view to providing hassle-free, transparent, and efficient service to the disaster managers. As part of the goal of adopting good Governance, NDMA has also introduced a cloud-based NDMA-GIS platform for effective disaster risk management. GIS is a powerful platform that facilitates all requirements of effective Decision Support Systems.

Considering the importance of geospatial technology and mapping of risks at different map scales in the country, NDMA requires the services of a professional as a GIS System Administrator.

NDMA has developed GIS-based application tools to create custom applications to meet specific user needs, ranging from spatial data conversion programs to interface designs that support inexperienced users to unlock the information and use it to identify patterns and make better decisions on a continuous basis. NDMA is using GIS to analyze complex situations, visualize problems, and create plans and solutions, which will also increase efficiency, improve communication and collaboration and help to coordinate work across organizations.

This is a focused area that requires specialized skills and partnership with concerned Ministries / Departments and other institutions dealing with the required expertise.

3. Position (in numbers)-: GIS System Administrator - One (1)

4. Scope of work (Local, regional or pan-India) -:

GIS System Administrator will provide technical assistance to NDMA-GIS in the implementation of the state of art geospatial lab within NDMA and support coordination with the Central and State agencies. In addition, the GIS System Administrator will assist the NDMA-GIS team in developing different applications (both desktop & web-based) on GIS and its implementation with monitoring. He will also undertake capacity-building and strengthening measures to escalate the use of geospatial technology in DRR among all the stakeholders. GIS System Administrator will work within NDMA and provide support to all the states.



5. **Duty station** -: New Delhi, India

6. **Status (Full Time/Part Time/Short term or Long term)**:- Full Time

7. **Deliverables**:- GIS System Administrator will work under the overall supervision of the Joint Advisor, NDMA, and its deliverables are as under:

- Install, monitor, and troubleshoot Software/Server packages in production, development, and test environment
- Design the architecture and system specification of the Virtual Machines (VM)
- Examine and update the current Software/Server architecture
- To set up access control backup and upgrade system with a new release and models
- To create and deploy different Geospatial Services (WMS, WFS and other services etc.) on Cloud platform
- To publish the Spatial Data and Web Maps and Applications in GIS Server
- Monitoring of system performance and troubleshooting issues on a regular basis
- To integrate different GIS services received from APIs or any other sources
- Creation of Spatial Data, Web Maps, Applications and GIS Analysis
- Implement the data model and metadata scheme on Cloud environment
- To plan and configure the organization's GIS Online home page, users, groups, and access to GIS resources
- Coordinating GIS-related activities with Stakeholders & Nodal Agencies
- Providing technical and project management support
- Coordinating and leading GIS initiatives with external organizations.
- Preparing GIS project status reports
- Acting as liaison with related Stakeholders
- Evaluating technological advances and promoting the usage of appropriate technology and application

8. **Competencies and Skills required** -:

- Promoting the vision of NDMA
- Advising, leading, and supervising
- Formulating concepts and strategies
- Managing resources
- Ability to work in a team situation and engage with diverse stakeholders
- Inter-personal and communication skills
- Proactive engagement and dialogue
- Strategic advice and communication
- **Language proficiency** - Fluency in written and spoken English is required for this position

9. **Educational Qualifications (Essential/Desirable)** -:

- **Essential Qualifications:** Bachelor's degree (B.Tech/ BE) in IT/ Computer Science, or MCA or MSc in IT/ Computer Science with knowledge of Geospatial data



- **Desirable Qualifications:**

- Knowledge of installation and configuration of Geo-Databases PostgreSQL/SQL/Oracle/Rest Services
- Deployment of Geo Server, Arc Server, QGIS Server on Cloud environment
- Experience to set up access control backup and upgrade system with a new release and models
- Familiar with OS and Cloud platforms (IaaS, SaaS, PaaS, STaaS)
- Knowledge of DNS (Network, Server, OS, Application, and Security patches)
- Programming languages such as Python /JavaScript /R
- Experience to work with different Geospatial Services (WMS, WFS and other services etc.)
- Experience in spatial data handling, maps, and layers on GIS software

10. Experience -:

- Must have 2 years of experience in the relevant sector

11. Salary/Remuneration-: Rs. 45,500 per month

12. Reporting Mechanism -: The GIS System Administrator will be working under the supervision of the concerned Joint Advisor of NDMA. However, on a time-to-time basis division Sr. Consultant (GIS)/ Consultant (GIS) will guide him/her on handling subject-related issues.

13. Support/inputs to be provided by NDMA to facilitate GIS Project Staff -: During the tenure, no additional support other than office equipment i.e., Desktops, Printers, Internet, etc. may be provided by NDMA. However, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visits, etc. will also be provided as per the rules/regulations of GoI/NDMA.

14. Special remarks, such as travel, etc. -: For all official tours, visit of GIS System Administrator, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visit, etc. will also be provided as per the rules/regulations of GOI/NDMA.

15. Any additional remarks -: Nil



Terms of Reference for GIS Project Coordinator/ Project Manager

1. General overview :-

The National Disaster Management Authority (NDMA) is the apex-level institution for disaster management in India. The Disaster Management Act, of 2005 provides for setting up the NDMA along with a host of other institutions at the national, state, and district levels. Chaired by the Prime Minister of India, the NDMA is mandated to lay down the policies, plans, and guidelines for disaster management, and implement various programs related to several aspects of disaster management. Since its inception, the NDMA has implemented several initiatives and programs on strengthening disaster preparedness and mitigation, improving disaster response and recovery, and supporting capacity-building activities in the country.

2. Purpose :-

National Disaster Management Authority (NDMA) has identified GIS as a major thrust area for the effective and efficient management of disaster risk. NDMA takes all possible measures for implementing geospatial infrastructure within the organization itself, covering all the sectors with a view to providing hassle-free, transparent and efficient service to the disaster managers. As part of the goal of adopting good Governance, NDMA has also introduced a cloud-based NDMA-GIS platform for effective disaster risk management. GIS is a powerful platform that facilitates all requirements of effective Decision Support Systems.

Considering the importance of geospatial technology and mapping of risks at different map scales in the country, NDMA requires the services of a professional as GIS Project Coordinator/ Project Manager.

NDMA has developed GIS-based application tools to create custom applications to meet specific user needs, ranging from spatial data conversion programs to interface designs that support inexperienced users to unlock the information and use it to identify patterns and make better decisions on a continuous basis. NDMA is using GIS to analyze complex situations, visualize problems, and create plans and solutions, which will also increase efficiency, improve communication and collaboration and help to coordinate work across organizations.

This is a focused area that requires specialized skills and partnership with concerned Ministries / Departments and other institutions dealing with the required expertise.

3. Position (in numbers):- GIS Project Coordinator/ Project Manager - One (1)

4. Scope of work (Local, regional or pan-India) :-

GIS Project Coordinator/ Project Manager will assist NDMA-GIS in the establishment of a state-of-the-art geospatial lab within NDMA, as well as support collaboration

with national and state agencies. In addition, the GIS Project Coordinator/ Project Manager will work with the NDMA-GIS team to develop various hazard-specific databases and apps (desktop and web- based) on the GIS platform. He would also take capacity-building and strengthening efforts to encourage all stakeholders to use geospatial technology in DRR. GIS Project Coordinator/ Project Manager will work within NDMA and provide support to all the states.

5. **Duty station -:** New Delhi, India
6. **Status (Full Time/Part Time/Short term or Long term)-:** FullTime
7. **Deliverables-:** GIS Project Coordinator/ Project Manager will work under the overall supervision of the Joint Advisor, NDMA, and its deliverables are as under:
 - Implementation of effective tools for decision-making processes for pre, during and post-disaster scenarios.
 - Early Warning System Layers integration and analysis after receiving the data from respective nodal organizations
 - Mapping guidance to the states
 - Integration Hazard-zonation Map of different parts of the country with respect to various natural/manmade hazards at a different scale or resolution
 - Preparation of Hazard Atlases along with census data for their easy implementation as effective tools for mitigation measures and decision-making processes for pre-during and post-disaster scenarios.
 - Collection, standardization, and storage of data (both spatial as well as nonspatial for preparation of the GIS platform for the establishment of a data fusion center.
 - Contributions in risk mapping with respect to hazard & vulnerability with assistance from Academia, Research institutes, and other professional bodies.
 - Setting time-bound project goals and objectives.
 - Designing and implementing organization-wide GIS standards.
 - Monitoring performance against plans and establishing resolution actions for any variances from plans.
 - Supervising, monitoring and evaluating the work of GIS staff.
 - Coordinating GIS-related activities with Stakeholders & Nodal Agencies.
 - Providing technical and project management support.
 - Providing an interface between NDMA-GIS and Senior officials working within the NDMA.
 - Coordinating and leading GIS initiatives with external organizations.
 - Preparing GIS project status reports.
 - Acting as liaison with related Stakeholders.

- Evaluating technological advances and promoting the usage of appropriate technology and application.

8. Competencies and Skills required -:

- Promoting the vision of NDMA
- Advising, leading, and supervising
- Formulating concepts and strategies
- Managing resources
- Ability to work in a team situation and engage with diverse stakeholders
- Inter-personal and communication skills
- Proactive engagement and dialogue
- Strategic advice and communication
- **Language proficiency** - Fluency in written and spoken English is required for this position

9. Educational Qualifications (Essential/Desirable) -:

- **Essential Qualifications:** Master's degree (M.Tech/ ME/ M.Sc.) in IT/ Computer Science, or in Remote Sensing/ Geoinformatics or in Statistics/ Mathematics/ Data Science or any other related disciplines with specialization in GIS or MCA
- **Desirable Qualifications:**
 - Should have project-handling capabilities and evaluation of development activities
 - Effective collaboration, organizational, and teamwork skills
 - Working experience incorporating and applying data science, machine learning, and/or GIS applications to broad field of disaster management; incorporation of data visualization and mapping, remote sensing, vulnerability, and climate resilience
 - Experience that included programming for data science (e.g., Python/ MATLAB/ JavaScript/ IDL/ R) and a full range of professional statistical work such as: (a) intermediate and/or advanced statistics, (b) linear, semi-linear, and/or non-linear models, (c) working with a range of data types and statistical methods, or (d) data visualization capabilities
 - Familiarity with Geo-Databases (PostgreSQL/ SQL) and GIS Server System (GeoServer & MapServer) / App development in GIS environment
 - Capable of performing GIS analysis and map generation using automated programming techniques
 - Advanced applied statistics skills, such as distributions, statistical testing, regression, etc.
 - Professional experience with developing machine learning solutions and

applying them in real-world scenarios

- Demonstrated ability to follow and/or develop deadlines, follow through in timely and efficient manner, as well as contribute to overall project deliverables

10. Experience -:

- Must have 4 years of experience in the relevant sector

11. Salary/Remuneration-: Rs. 65,000 per month

12. Reporting Mechanism -: The GIS Project Coordinator/ Project Manager will be working under the supervision of the concerned Joint Advisor of NDMA. However, on a time-to-time basis division Sr. Consultant (GIS)/ Consultant (GIS) will guide him/her on handling subject-related issues.

13. Support/inputs to be provided by NDMA to facilitate GIS Project Staff -: During the tenure, no additional support other than office equipment i.e., Desktops, Printers, Internet, etc. may be provided by NDMA. However, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visits, etc. will also be provided as per the rules/regulations of GOI/NDMA.

14. Special remarks, such as travel, etc. -: For all official tours, visit of GIS Project Coordinator/ Project Manager, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visit, etc. will also be provided as per the rules/regulations of GOI/NDMA.

15. Any additional remarks -: Nil

Terms of Reference for GIS Executive / Developer

1. General overview -:

The National Disaster Management Authority (NDMA) is the apex-level institution for disaster management in India. The Disaster Management Act, of 2005 provides for setting up the NDMA along with a host of other institutions at the national, state, and district levels. Chaired by the Prime Minister of India, the NDMA is mandated to lay down the policies, plans, and guidelines for disaster management, and implement various programs related to several aspects of disaster management. Since its inception, the NDMA has implemented several initiatives and programs on strengthening disaster preparedness and mitigation, improving disaster response and recovery, and supporting capacity-building activities in the country.

2. Purpose -:

National Disaster Management Authority (NDMA) has identified GIS as a major thrust area for the effective and efficient management of disaster risk. NDMA takes all possible measures for implementing geospatial infrastructure within the organization itself, covering all the sectors with a view to providing hassle-free, transparent and efficient service to the disaster managers. As part of the goal of adopting good Governance, NDMA has also introduced a cloud-based NDMA-GIS platform for effective disaster risk management. GIS is a powerful platform that facilitates all requirements of effective Decision Support Systems.

Considering the importance of geospatial technology and mapping of risks at different map scales in the country, NDMA requires the services of a professional as GIS Executive / Developer.

NDMA has developed GIS-based application tools to create custom applications to meet specific user needs, ranging from spatial data conversion programs to interface designs that support inexperienced users to unlock the information and use it to identify patterns and make better decisions on a continuous basis. NDMA is using GIS to analyze complex situations, visualize problems, and create plans and solutions, which will also increase efficiency, improve communication and collaboration and help to coordinate work across organizations.

This is a focused area that requires specialized skills and partnership with concerned Ministries / Departments and other institutions dealing with the required expertise.

3. Position (in numbers)-: GIS Executive / Developer - One (1)

4. Scope of work (Local, regional or pan-India) -:

GIS Executive / Developer will assist NDMA-GIS in the establishment of a state-of-the-art geospatial lab within NDMA, as well as support collaboration with national

and state agencies. In addition, the GIS Executive will work with the NDMA-GIS team to develop various hazard-specific databases and apps (desktop and web-based) on the GIS platform. He would also take capacity-building and strengthening efforts to encourage all stakeholders to use geospatial technology in DRR. GIS Executive / Developer will work within NDMA and provide support to all the states.

5. **Duty station** -: New Delhi, India

6. **Status (Full Time/Part Time/Short term or Long term)**:- FullTime

7. **Deliverables**:- GIS Executive / Developer will work under the overall supervision of the Joint Advisor, NDMA, and its deliverables are as under:

- Different Geospatial Layers integration and analysis after receiving the data from respective organizations
- Collection, standardization, and storage of data (both spatial as well as nonspatial for preparation of the GIS platform for the establishment of a data fusion center.
- Data Preparation for Hazard Atlases along with census data for their easy implementation as effective tools for mitigation measures and decision-making processes for pre during and post-disaster scenarios.
- Integration Hazard-zonation Map of different parts of the country with respect to various natural/manmade hazards at a different scale or resolutions on continuous basis to improve the Hazard Information System
- Contributions in risk mapping with respect to hazard & vulnerability with assistance from Academia, Research institutes, and other professional bodies.
- Providing an interface between NDMA-GIS and Senior officials working within the NDMA.
- Mapping guidance to the states
- Evaluating technological advances and promoting the usage of appropriate technology and application.

8. **Competencies and Skills required** -:

- Promoting the vision of NDMA
- Advising, leading, and supervising
- Formulating concepts and strategies
- Managing resources
- Ability to work in a team situation and engage with diverse stakeholders

- Inter-personal and communication skills
- Proactive engagement and dialogue
- Strategic advice and communication
- **Language proficiency** - Fluency in written and spoken English is required for this position

9. Educational Qualifications (Essential/Desirable) :-

- **Essential Qualifications:** Master's degree (M.Tech/ ME/ M.Sc.) in IT/ Computer Science, or in Remote Sensing/ Geoinformatics/ Geography/ Geology/ Environmental Science or any other related disciplines with specialization in GIS
- **Desirable Qualifications:**
 - Knowledge with Data Models / Data Schema and Mapping Scale / Metadata creation and managing the same
 - Knowledge with Geo-Databases PostgreSQL/SQL) and GIS Server System (GeoServer & MapServer) / App development in GIS environment
 - Knowledge in processing remotely sensed data (Image Processing) on different platform with different data format along with GIS data analysis and data conversion techniques
 - Hands-on experience with Programming languages such as Python / JavaScript/ IDL/ R
 - Prior experience on ArcGIS Server & ArcGIS Enterprise solutions and its Extension with ArcGIS Apps, ArcGIS Hub, ArcGIS Online, and ArcGIS Pro with QGIS/ ILWIS/ GRASS
 - Experience on data calibration & validation and data dissemination techniques Working experience on integration of different geoportal on ArcGIS Environment
 - Working experience with App development in a GIS environment i.e., Operation Dashboard, Web App builder, Arc Catalog

10. Experience :-

- Must have 2 years of experience in the relevant sector

11. Salary/Remuneration:- Rs. 52,000 per month

12. Reporting Mechanism :- The GIS Executive / Developer will be working under the supervision of the concerned Joint Advisor of NDMA. However, on a time-to-time basis division Sr. Consultant (GIS)/ Consultant (GIS) will guide him/her on handling subject-related issues.

13. Support/inputs to be provided by NDMA to facilitate GIS Project Staff :- During the tenure, no additional support other than office equipment i.e., Desktops, Printers, Internet, etc. may be provided by NDMA. However, allowances such as TA/DA,

Lodging & Boarding expenses, etc. for official tours, visits, etc. will also be provided as per the rules/regulations of GOI/NDMA.

14. Special remarks, such as travel, etc. -: For all official tours, visit of GIS Executive / Developer, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visit, etc. will also be provided as per the rules/regulations of GOI/NDMA

15. Any additional remarks -: Nil

Terms of Reference for GIS Database Administrator

1. General overview :-

The National Disaster Management Authority (NDMA) is the apex-level institution for disaster management in India. The Disaster Management Act, of 2005 provides for setting up the NDMA along with a host of other institutions at the national, state, and district levels. Chaired by the Prime Minister of India, the NDMA is mandated to lay down the policies, plans, and guidelines for disaster management, and implement various programs related to several aspects of disaster management. Since its inception, the NDMA has implemented several initiatives and programs on strengthening disaster preparedness and mitigation, improving disaster response and recovery, and supporting capacity-building activities in the country.

2. Purpose :-

National Disaster Management Authority (NDMA) has identified GIS as a major thrust area for the effective and efficient management of disaster risk. NDMA takes all possible measures for implementing geospatial infrastructure within the organization itself, covering all the sectors with a view to providing hassle-free, transparent and efficient service to the disaster managers. As part of the goal of adopting good Governance, NDMA has also introduced a cloud-based NDMA-GIS platform for effective disaster risk management. GIS is a powerful platform that facilitates all requirements of effective Decision Support Systems.

Considering the importance of geospatial technology and mapping of risks at different map scales in the country, NDMA requires the services of a professional as GIS Database Administrator.

NDMA has developed GIS-based application tools to create custom applications to meet specific user needs, ranging from spatial data conversion programs to interface designs that support inexperienced users to unlock the information and use it to identify patterns and make better decisions on a continuous basis. NDMA is using GIS to analyze complex situations, visualize problems, and create plans and solutions, which will also increase efficiency, improve communication and collaboration and help to coordinate work across organizations.

This is a focused area that requires specialized skills and partnership with concerned Ministries / Departments and other institutions dealing with the required expertise.

3. Position (in numbers):- GIS Database Administrator - One (1)

4. Scope of work (Local, regional or pan-India) :-

GIS Database Administrator will provide technical assistance to NDMA-GIS in the implementation of the state of art geospatial lab within NDMA and support coordination with the Central and State agencies. In addition, the GIS Database Administrator will assist the NDMA-GIS team in developing different applications (both desktop & web-based) on GIS and its implementation with monitoring. He will also undertake capacity-building and strengthening measures to escalate the use of geospatial technology in DRR among all the stakeholders. GIS Database

Administrator will work within NDMA and provide support to all the states.

5. **Duty station -:** New Delhi, India

6. **Status (Full Time/Part Time/Short term or Long term)-:** FullTime

7. **Deliverables-:** GIS Database Administrator will work under the overall supervision of the Joint Advisor, NDMA, and its deliverables are as under:

- Install, monitor, and troubleshoot database packages in production, development, and test environment;
- Review currently available datasets at the NDMA, identify the gaps in data and advise on the additional data requirements
- Develop data schema and prepare unified data model for further processing
- Design the structure and format for each item/ theme to be included in the database
- Identify quality parameters, categorize quality and specify the scope and limitation of data
- Examine the current database structure and in line with that develop the assessment tracking module using the same platform
- Based on the quality definition, identify the methods to be used to assess/test data quality. The methods shall include statistical methods and shall make use of the results of the quality definition
- All data for building the database shall undergo a validation procedure according to the developed procedures for quality assurance.
- Design and develop a metadata scheme based on state of the art conventions and standards.
- Develop a data model synthesizing and incorporating data structures and formats and taking linkages with the Geodatabase
- Implement the data model and metadata scheme in the DBMS
- Test the performance of the database queries and implement performance optimization as needed
- Coordinating GIS-related activities with Stakeholders & Nodal Agencies.
- Providing technical and project management support.
- Coordinating and leading GIS initiatives with external organizations.
- Preparing GIS project status reports.

- Acting as liaison with related Stakeholders.
- Evaluating technological advances and promoting the usage of appropriate technology and application.

8. Competencies and Skills required -:

- Promoting the vision of NDMA
- Advising, leading, and supervising
- Formulating concepts and strategies
- Managing resources
- Ability to work in a team situation and engage with diverse stakeholders
- Inter-personal and communication skills
- Proactive engagement and dialogue
- Strategic advice and communication
- **Language proficiency** - Fluency in written and spoken English is required for this position

9. Educational Qualifications (Essential/Desirable) -:

- **Essential Qualifications:** Bachelor's degree (B.Tech/ BE) in IT/ Computer Science, or MCA or MSc in IT/ Computer Science with knowledge of Geospatial data
- **Desirable Qualifications:**
 - Knowledge of Data Model & Data Schema and Metadata creation and managing the same
 - Knowledge of Geo-Databases PostgreSQL/SQL/Oracle/Rest Services
 - Experience in SQL query design, execution, and optimization
 - Building and managing large database applications with MySQL/ PostgreSQL
 - Knowledge of designing and implementing databases in accordance to end user's information needs and views i.e., Stakeholders
 - Working experience on integration of different geodatabases received from APIs or any other sources
 - Programming languages such as Python /JavaScript /R

10. Experience -:

- Must have 2 years of experience in the relevant sector

11. Salary/Remuneration-: Rs. 45,500 per month

12. Reporting Mechanism -: The GIS Database Administrator will be working under the supervision of the concerned Joint Advisor of NDMA. However, on a time-to-time basis division Sr. Consultant (GIS)/ Consultant (GIS) will guide him/her on handling subject-related issues.

13. Support/inputs to be provided by NDMA to facilitate GIS Project Staff -: During the tenure, no additional support other than office equipment i.e., Desktops, Printers,

Internet, etc. may be provided by NDMA. However, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visits, etc. will also be provided as per the rules/regulations of GOI/NDMA.

14. **Special remarks, such as travel, etc. -:** For all official tours, visit of GIS Database Administrator, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visit, etc. will also be provided as per the rules/regulations of GOI/NDMA
15. **Any additional remarks -:** Nil

Terms of Reference for GIS Data Entry Operator/ Data Support Associate

1. General overview -:

The National Disaster Management Authority (NDMA) is the apex-level institution for disaster management in India. The Disaster Management Act, of 2005 provides for setting up the NDMA along with a host of other institutions at the national, state, and district levels. Chaired by the Prime Minister of India, the NDMA is mandated to lay down the policies, plans, and guidelines for disaster management, and implement various programs related to several aspects of disaster management. Since its inception, the NDMA has implemented several initiatives and programs on strengthening disaster preparedness and mitigation, improving disaster response and recovery, and supporting capacity-building activities in the country.

2. Purpose -:

National Disaster Management Authority (NDMA) has identified GIS as a major thrust area for the effective and efficient management of disaster risk. NDMA takes all possible measures for implementing geospatial infrastructure within the organization itself, covering all the sectors with a view to providing hassle-free, transparent and efficient service to the disaster managers. As part of the goal of adopting good Governance, NDMA has also introduced a cloud-based NDMA-GIS platform for effective disaster risk management. GIS is a powerful platform that facilitates all requirements of effective Decision Support Systems.

Considering the importance of geospatial technology and mapping of risks at different map scales in the country, NDMA requires the services of a professional as GIS Data Entry Operator/ Data Support Associate.

NDMA has developed GIS-based application tools to create custom applications to meet specific user needs, ranging from spatial data conversion programs to interface designs that support inexperienced users to unlock the information and use it to identify patterns and make better decisions on a continuous basis. NDMA is using GIS to analyze complex situations, visualize problems, and create plans and solutions, which will also increase efficiency, improve communication and collaboration and help to coordinate work across organizations.

This is a focused area that requires specialized skills and partnership with concerned Ministries / Departments and other institutions dealing with the required expertise.

3. Position (in numbers)-: GIS Data Entry Operator/ Data Support Associate

4. **Scope of work (Local, Regional or PAN India) -:** GIS Data Entry Operator/ Data Support Associate will assist NDMA-GIS in the establishment of a state-of-the-art geospatial lab within NDMA, as well as support collaboration with national and state agencies. In addition, the GIS Data Entry Operator/ Data Support Associate will work with the NDMA-GIS team to formalize the datasets in a specific data framework and in specific data formats to process further on the GIS platform. He would also take capacity-building and strengthening efforts to encourage all stakeholders to use geospatial technology in DRR. GIS Data Entry Operator/ Data Support Associate will work within NDMA and provide support to all the states.

5. **Duty station** -: New Delhi, India

6. **Status (Full time/Part Time/Short term or Long term)** -: FullTime

7. **Deliverables** -: GIS Data Entry Operator/ Data Support Associate will work under the overall supervision of the Joint Advisor, NDMA, and its deliverables are as under:

- Transcribes source data into the required electronic format
- Transfers information from paper formats into computer files using keyboards, data recorders, or optical scanners
- Performs high-volume data entry using word processing, spreadsheet, database, or other computer software
- Research and obtain further information for incomplete documents
- Verifies the integrity of data by comparing it to source documents
- Reviews data for errors, missing pages, or missing information and resolve any discrepancies
- Maintains a filing system and protects confidential customer information. Performs regular backups to ensure data preservation
- Responds to requests to retrieve data from the database or electronic filing system

8. **Competencies and Skills required** -:

- Promoting the vision of NDMA
- Advising, leading, and supervising
- Formulating concepts and strategies
- Managing resources
- Ability to work in a team situation and engage with diverse stakeholders
- Inter-personal and communication skills
- Proactive engagement and dialogue
- Strategic advice and communication
- **Language proficiency** - Fluency in written and spoken English is required for this position

9. **Educational Qualifications (Essential/Desirable)** -:

- **Essential Qualifications:** BE/ BTech/BSc in IT/Computer Science or MSc with specialization in GIS/ Geo informatics or Remote Sensing or MCA
- **Desirable Qualifications:**
 - Basic Knowledge with ArcMap or QGIS
 - Working Knowledge of basic mapping and cartographic concepts; mapping symbols and standards; GIS concepts, mathematical concepts, research methods, and basic graphic arts principles
 - Working knowledge of data storage, data retrieval and data processing for the creation of value-added information would be desirable

- Familiarity with geospatial data types and data formats
- Familiarity with data conversion techniques
- Excellent communication and writing skills (oral and written) in English

10. Experience -:

- Must have 2 years of experience in the relevant sector
- Computer proficiency and commonly used packages like MS office etc.

11. Salary/Remuneration-: Rs. 32,500 per month

12. Reporting Mechanism -: The GIS Data Entry Operator/ Data Support Associate will be working under the supervision of the concerned Joint Advisor of NDMA. However, on a time-to-time basis concerning division Sr. Consultant (GIS)/ Consultant(GIS) and GIS Project Coordinator will guide him/her on handling subject- related issues.

13. Support/inputs to be provided by NDMA to facilitate GIS Project Staff -: During the tenure, no additional support other than office equipment i.e., Desktops, Printers, Internet, etc. may be provided by NDMA. However, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visits, etc. will also be provided as per the rules/regulations of GOI/NDMA.

14. Special remarks, such as travel, etc. -: For all official tours, visit of GIS Data Entry Operator/ Data Support Associate, allowances such as TA/DA, Lodging & Boarding expenses, etc. for official tours, visit, etc. will also be provided as per the rules/regulations of GOI/NDMA

15. Any additional remarks -: Nil

