

Date: 20 March 2025

Request for Proposal

Hiring an agency for National Disaster Risk and Resilience Assessment and Roadmap for the Telecommunication Sector for Bhutan

1. Introduction

About CDRI

The Coalition for Disaster Resilient Infrastructure (CDRI) is a partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and knowledge institutions that aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development.

Vision

CDRI seeks to rapidly expand the development and retrofit of resilient infrastructure to respond to the SDG of expanding universal access to basic services, enabling prosperity and decent work.

Mission

To support countries to upgrade their systems to ensure disaster and climate resilience of existing and future infrastructure.

Strategic Work Plan 2023-2026

CDRI's Strategic Work Plan 2023-26 describes the broad contours of its priority actions and planned initiatives in the next four years. The Strategic Work Plan sets out a clear direction for the Coalition to pursue a transformational agenda for DRI in response to a changing risk landscape and evolving on-ground realities of its members. In the next four years, the Coalition will continue to leverage the expertise of its Member Countries and partners to develop context-specific, innovative solutions for resilient infrastructure towards the achievement of national priorities and global commitments of its members.

With the Strategic Work Plan for 2023 – 2026, CDRI has set out the following strategic outcomes.

Strategic Outcome 1: A strong Coalition that has the membership, resources, and global leadership to drive global, national, regional, and local DRI action.

Strategic Outcome 2: Global DRI research, Coalition-led peer engagement, and CDRI-curated and generated knowledge promote risk-informed policy and practice.

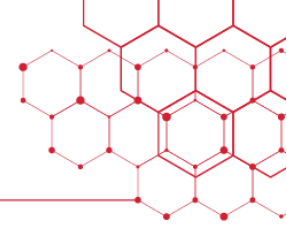
Strategic Outcome 3: Enhanced capacities of government, private enterprises, and communities to implement post-disaster recovery and DRI action at scale.

CDRI Headquarters (Secretariat)

The CDRI Headquarter is established in New Delhi, India, to act as the Secretariat of the Coalition.

2. Background & Objective

In the largely networked, global world, telecommunications are a 'Lifeline Infrastructure System'. Telecommunications, along with power, transportation, and water, are the critical infrastructural systems essential for the society and economy to function. Telecommunication is equally crucial



in the operation of other infrastructures such as airports, the management of power grids, and the operation of banking services.

The telecommunications sector managed to function reasonably well despite the COVID-19 pandemic, while several other sectors were deeply affected. In fact, the telecom sector played a pivotal and instrumental role in keeping societies and economies moving by providing business-critical connectivity, facilitating work-from-home arrangements, and keeping individuals, businesses, and governments connected and informed¹. Hence, the criticality of this infrastructure sector is even more evident and pronounced.

Telecommunications infrastructure consists of a network of interdependent systems that function to enable economic and social activity. At present, digital connectivity is primarily dependent on the technical and terrestrial infrastructure (physical layer assets), comprising of antennas, data centres, submarine cables, Base transceiver station (BTS), Mobile Switching Centre (MSC), Base Station Controller (BSC), Optical Fibre Cables (OFCs), etc. Failure, disruption, or damage to this layer impacts individuals, businesses, and governments either directly or indirectly.

During disasters, telecommunications failures occur through multiple mechanisms. These failures can be due to physical destruction or damage to the network infrastructure, such as the assets mentioned above, disruption in supporting infrastructures such as power, damage to the built environment, and network congestion².

As such, the impacts of natural hazards and climatic events on telecommunication infrastructure may have compound and cascading effects. This may include a) asset-scale impact: antennas, data centres, submarine cables, landing stations, etc.; b) network-scale impact: reduced transmission capacity, overloading of unaffected assets, localized blackouts; and c) system-scale impacts: supply chain disruptions, revenue loss to ICT dependent industries, impact on disaster recovery efforts and digital economy. Increasing intensity and frequency of disasters directly or indirectly impact the telecommunication infrastructure system highlights an urgent need to build a disaster and climate-resilient telecommunication sector for accomplishing sustainable development goals.

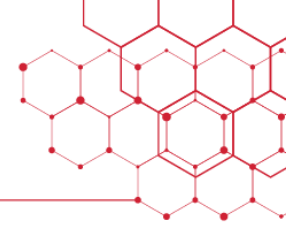
Lessons from CDRI's Disaster Risk and Resilience Assessment Framework (DRRAF) for the Indian Telecommunication sector

To assess the impacts of disasters on the telecommunication infrastructure system (first mile to last mile), evaluate the system capacity (including interconnected and interdependent system), integrate globally adopted locally applicable resilience options and a way forward to adapt with the future change, the Coalition for Disaster Resilient Infrastructure (CDRI) initiated a National and sub-National level study on the Disaster Risk and Resilience Assessment of Telecom sector in India.

This report outlines the approach towards formulating the Disaster Risk and Resilience Assessment Framework (DRRAF) for the Indian Telecommunication sector. The framework provides guidance for different stakeholder groups (Govt./Private Telecom players) across the country to (1) monitor disaster risk and its impact on the systemic elements, (2) learn from the past events and handle them through existing and evolving good practices, (3) evaluate various resilience options best suited for local/ regional context, (4) provide its implementation

¹ COVID-19's Impact on the Global Telecommunications Industry, IFC
https://www.ifc.org/wps/wcm/connect/1d490aec-4d57-4cbf-82b3-d6842eecd9b2/IFC-Covid19-Telecommunications_final_web_2.pdf?MOD=AJPERES&CVID=n9nxogP

² Telecommunications infrastructure in disasters: Preparing Cities for Crisis Communications
<https://reliefweb.int/sites/reliefweb.int/files/resources/nyu-disastercommunications1-final.pdf>



arrangement and a way forward for adapting with future change to ensure seamless connectivity and uninterrupted operation for different hazard conditions. The supportive study mapped the resilience state of the Indian Telecom Sector and recommended the optimal resilience solutions to adapt to future change.

Strengthening the Resilience of the Telecommunication Sector in Bhutan

CDRI, based on the request from the Government of Bhutan, aims to support the strengthening resilience of Bhutan's telecommunication sector.

While there are relevant literature and studies on risk assessment, at present, there is a lack of a comprehensive framework on disaster risk and resilience assessment of the telecommunication sector in landlocked and mountain regions. With this background, this proposed initiative aims to build on and customise the DRRAF work in India and undertake a comprehensive risk and resilience assessment based on the Disaster Risk and Resilience Assessment Framework (DRRAF) developed by CDRI. The assessment will be undertaken based on the engagement at the national and subnational levels.

The assessment will also include the development of a roadmap for building the resilience of the telecommunication sector for Bhutan. This RFP focuses on the development of a disaster risk and resilience assessment framework and an actionable roadmap for disaster resilience for Telecommunications in Bhutan.

Bhutan's unique characteristics that the assessment should consider include the mountainous terrain and the respective hazard profiles, landlocked geographic location of the country, governance, and administrative structure, amongst others.

3. Purpose

The overarching purpose of this study is to prepare a roadmap to enhance the disaster resilience of the telecommunication sector in Bhutan. This will be initiated through a comprehensive risk and resilience assessment of the telecommunications sector.

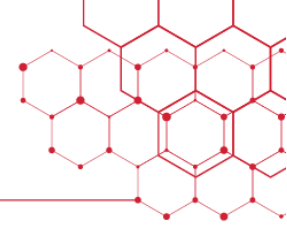
4. Scope of Work (SoW)

CDRI intends to support Bhutan to utilise the DRRRA framework to undertake a comprehensive risk and resilience assessment for its telecommunication sector. This requires a systems approach to understanding the dynamic of the network, interplay within the system and outside of modern telecommunication systems, and understanding of climate and disaster risks at asset, network, and systems level. With this objective, the scope of work entails:

- **A Comprehensive Disaster Risk and Resilience Assessment (DRRA)** for the telecommunication sector, based on CDRI's DRRRA framework
- **Development of an actionable roadmap for the resilient telecommunication sector, Bhutan**

Under the scope of this study, disasters impacting Bhutan, caused either by rapid or slow onset events, which may be geophysical, hydrological, and meteorological, should be considered. The study will serve as a guiding document for other CDRI member countries undertaking risk and resilience assessment of the telecommunications sector.

Note: *The selected agency will work with CDRI on aligning the proposed assessment with the study on 'National and Subnational Disaster Risk and Resilience Assessment and Roadmap for the Telecommunication Sector, India', with active support from Bhutan Telecom Limited and other relevant Bhutanese stakeholders. This is to ensure unified and synchronous outputs and outcomes are developed for the proposed assessment in line with the DRRAF study.*



5. Potential Outcomes

The proposed assessment is a fundamental step towards understanding the risk and resilience of the telecommunication sector as well as the action plan for Bhutan, leading to future outcomes including,

- Enabling environment created for telecom sector policies, institutional capacities, processes, regulations for embedding resilience in the telecommunication infrastructure systems.
- Technical standards are upgraded, and certification mechanisms are further developed, building upon a compendium of global best practices.
- Resilience enhanced through addressing information, policy, and fiscal gaps across different levels and stakeholders of the telecommunication infrastructure sector
- Resilience is integrated into the planning and retrofitting of existing and new telecommunication infrastructure systems
- Financial policies and incentives to ensure resilience in design, construction, operation, and maintenance of telecommunication infrastructure systems are strengthened.
- Awareness, innovation and capacities of national and local stakeholders for enhancing DRI in Telecommunication sector is increased. Peer-to-peer knowledge exchange for coordinated actions on strengthening resilient telecommunication infrastructure is strengthened.

To work towards the achievement of the above-mentioned outcomes, the proposed work will be undertaken through two key tasks.

6. Tasks for the Proposed Assessment and Roadmap for Bhutan

The work for the proposed assessment and roadmap is divided into two key tasks and respective deliverables.

6.1 Task 1: Comprehensive Disaster Risk and Resilience Assessment (DRRA)

Background

The concept of resilience brings together both climate and disaster risks. Resilience refers to the ability of a system to absorb shocks, stresses and disruptions (through reducing vulnerability, exposure, and increasing the system's coping and adaptive capacities), and continue maintaining functionality during an event and recover, and learn and adapt from adverse events.

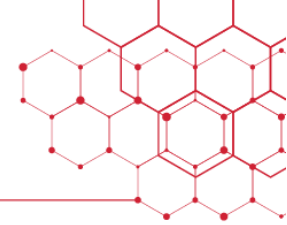


Fig 1: Proposed Conceptual & Analytical Framework for Resilience Assessment

Source: Disaster Risk Management in the Transport Sector: A Review of Concepts and International Case Studies

on CDRI’s DRRAF study for India, it will build and gain from the learnings from the detailed assessment of the telecom infrastructure and systems across the 5 partner Indian states ⁴

Based on its experience and expertise, the agency is expected to support the adaptation and application of the DRRAF for telecom in the context of Bhutan’s telecommunication sector.

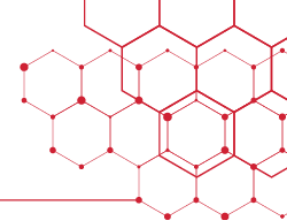
The proposed assessment should encompass the following (but not limited to) five domains and principles (refer Table 1) for developing resilience:

Table 1: Domains to foster resilience

Domains	Explanation
1. Policies, Institutions, and Processes (PIPs)	<p>These include the policies, institutions, processes, and regulations for embedding resilience within infrastructure systems. This must include the resilience principles of good governance, information flows, responsiveness and flexibility.</p> <p>Furthermore, effective management at the time of disasters not only depends on having in place resilient telecommunications infrastructure and services but also national strategies and plans that ensure effective and timely information sharing across all levels of government, within affected communities, and among public and private organizations. Timely and effective information flow is important for decision making, for early warning and alerting,</p>

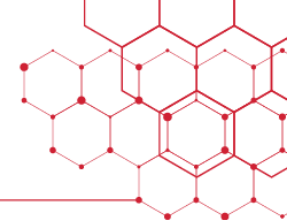
³ Moor et.al 2015, Disaster Risk Management in the Transport Sector A Review of Concepts and International Case Studies June 2015; <http://documents1.worldbank.org/curated/en/524081468188378328/pdf/98202-WP-P126896-Box391506B-PUBLIC-DRM-Final.pdf>

⁴ Disaster Risk Management in the Transport Sector: A Review of Concepts and International Case Studies <https://openknowledge.worldbank.org/handle/10986/22365>



	<p>and for the effective coordination and articulation of response efforts within all stakeholders working in disaster management, from first responders to senior officials. This includes the National Emergency Telecommunication Plans as well as the Standard Operating Procedures (SOPs), which involves different national stakeholders working on disaster management.</p>
<p>2. Technical Planning and Design</p>	<p>Planning and design of infrastructure must consider principles of robustness, safe failure, redundancy, and flexibility to ensure the resilience of infrastructure systems. Low asset cost, relatively shorter asset life, and rapid rate of technological change entail frequent upgradation of telecommunications infrastructure. Technical planning and design must account for future risks and respond to rapid change. It should also consider asset, network, and system scale risks.</p> <p>In addition, the components of first-mile, mid-mile, and especially last-mile connectivity in telecommunication infrastructure is important to ensure that the most vulnerable communities have minimum communication services in place. This is required for the dissemination of early warnings and important information to end users, particularly to communities at risk, which is vital to reduce their vulnerability. In this context, a wide range of digital technologies, including mobile connectivity and services, can be used for monitoring and early warning.</p> <p>This also includes aspects on finance, technology and innovation, codes, standards, and SOPs.</p>
<p>3. Operation and Maintenance (O&M)</p>	<p>The processes of operating, maintaining infrastructure is essential to ensure robustness of infrastructure systems. It should also encourage principles of resourcefulness, responsiveness and safe failure. This also includes aspects on finance, technology and innovation, codes, standards, SOPs.</p>
<p>4. Financial arrangements and incentives</p>	<p>Finances and incentives are needed to plan, design, construct, operate, and maintain infrastructure and must be embedded within infrastructure systems. A clear cost-benefit analysis of disaster and climate proofing assets, networks, and systems is needed. In addition, to enhance resilience, certifications must be monetized. It may also examine the use of risk transfer and insurance mechanisms for financial planning.</p>
<p>5. Expertise</p>	<p>The capacity of all agents: government officials, operators, engineers, regulators, and communities must be developed to institutionalise and mainstream resilience. This is also complemented with capacity mapping, development, and knowledge management</p>

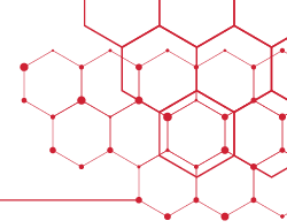
It is to be noted that the domains mentioned above are cross-cutting and contribute to the resilience of the sector together. CDRI proposes the above domains to be examined and assessed



through the following resilience principles (refer to Table 2).

Table 2: Principles of resilient infrastructure

Principles	Explanation
a) Good Governance	Involves clear definition of roles and responsibilities of stakeholders at national including private, public, CSOs organizations to ensure no overlap and competition of resources and management. It should include transparency, accountability, and anti-corruption measures during procurement, technical planning, and O&M processes. Across the globe, telecommunication infrastructure is majorly, managed, operated and implemented by private enterprises, hence good governance must address and promote resilience within business models. It must promote adoption of international standards and may provide viability gap funding for investments in resilience.
b) Information Flows	Efficient systems and flows must be present to exchange information quickly between stakeholders involved in O&M, Technical Planning and Design, Expertise, and between private and public sector actors to build resilience. This would include appropriate decision systems based on rigorous data collection and assessments
c) Robustness	It is the ability of a system, including network and assets, to withstand shocks and stresses to a designed or planned level. Technical Planning and Design must consider this principle while designing assets and networks through incorporating mitigation measures. O&M is critical to ensuring robustness.
d) Capacity to Learn	It is the ability of a system to ensure learning through continuous feedback mechanisms. This must be examined across domains such as Expertise, PIP's. Processes should be in place to encourage learning from past failures and events.
e) Resourcefulness	It is the ability of a system to mobilise assets and resources to meet priorities and would apply across all domains.
f) Flexibility	It is the ability of a system to evolve in the face of changing conditions. Domains such as PIPs, Expertise, Technical Planning and Design, Financial Arrangements and incentives must be flexible and be able to change iteratively in relevant context. For. e.g., technical planning and design of infrastructure assets can include steps for progressively improving its resiliency.
g) Responsiveness	It is defined as the ability of a system to restore function rapidly post a failure and not introduce new vulnerabilities. This applies across all domains.
h) Redundancy	Is the spare capacity of the system and involves increasing options so that when failure occurs, the system continues to function. Domains such as PIPs, Technical Planning and Design must be examined through this principle. For e.g. It may include increasing network redundancy to ensure connectivity during and post disaster events. This may include redundant telecoms equipment, including satellite, so that when disasters strike the sector can provide fast response by providing broadband connectivity through satellite.



<p>i) Safe Failure</p>	<p>It involves designing the infrastructure, including assets and networks, in a manner that allow for acceptable levels of failure. This would reduce cascading and compound risks. This would apply across domains such as Technical Planning and Design.</p>
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To build the resilience of telecommunication systems, the domains must be examined in all phases of the Disaster Risk Management (DRM) cycle, including **pre-disaster risk assessment and management, emergency response and risk reduction, and post-disaster recovery and reconstruction.**

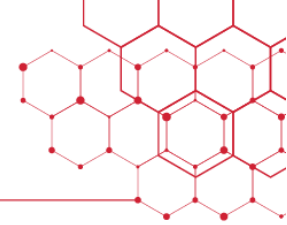
Using the conceptual and analytical framework proposed above (already applied in India), the Agency will undertake a detailed assessment for the Telecom sector in Bhutan. It is also expected that pilot studies at the national level will provide inputs and recommendations to improve and finalize the framework, which may be adopted by CDRI Member Countries. The key activities will include:

- Adapt/ develop the detailed methodology considering the above, and undertake a multi-hazard disaster risk and resilience assessment of the telecommunication sector in Bhutan in close collaboration with all relevant stakeholders
- Detailed mapping of stakeholders, including supplier ecosystem for building resilience at asset, network, and systems scale.
- Stock taking of telecom wireless and wireline infrastructure in Bhutan, such as network coverage, geographic distribution of network assets, technological Infrastructure, operational processes, etc.
- Identification of Disaster Risks and Impacts on telecommunications infrastructure like flooding, landslides, earthquakes, glacial lakes outburst flood (GLOF), and extreme weather events (heavy snowfall, strong winds, and hailstorms).
- Multi-hazard risk mapping and physical infrastructure vulnerabilities assessment of network components and supporting equipment and power supplies.
- Evaluation of network and telecom Service Continuity Risks covering service disruptions, data loss, and impacts on consumer segments.
- Operational and Organizational Resilience Analysis, like emergency response plan, staff training, etc.
- Development of Resilience Strategies such as infrastructure hardening, network redundancies, policies, rules and regulations analysis, and related measures.
- Enhancement of Emergency Response for all phases of disaster (before, during, and post), including but not restricted to resource allocation, communications protocols and staff training.
- Inputs on DRRAF approach and methodology for undertaking the risk and resilience assessment, especially in the context of mountain and landlocked countries.
- Identification of key performance indicators with parameters and development of risk and resilience index for Bhutan (mountain regions; landlocked countries).
- Identification of global best practices on risk and resilience assessment in the telecommunication sector and other related sectors for landlocked and mountainous countries.

Deliverables for Task 1

A comprehensive Disaster Risk and Resilience Assessment for Bhutan covering and addressing all the mentioned principles, domains, and aspects in the context of Bhutan.

6.2 Task 2: National disaster risk and resilience roadmap for the telecommunication sector in Bhutan



Based on the assessment under task 1, task 2 would involve the development of a disaster risk and resilience roadmap for the telecommunication sector in Bhutan. This geographical region represents unique developmental capacities along with exposure, vulnerability, and hazard risks.

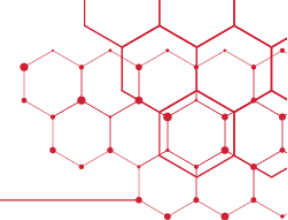
- The risk and resilience assessment for telecommunication sector in Bhutan will examine the domains of Policies, Institutions and Processes (PIPs), Technical Planning and Design, Operation and Maintenance (O&M), Financial arrangements and incentives and Expertise Based on a multi-hazard risk and resilience assessment to be carried out for the country to foster resilience of the sector. As part of the assessment, interdependencies with other infrastructure systems, such as power, roads, cross-border infrastructure interdependencies, and challenges of landlocked and mountain geographies, to name a few, will also be examined.
- As the telecommunication sector is technology-driven and largely private enterprise-driven, with constant evolution, a clear understanding of future scenarios and recommendations, with an understanding of rapid technological change, associated risks, and business cases through cost-benefit analysis is required. Similarly, governance mechanisms need to address these future scenarios towards developing risk and resilience, not only for the present but also for future disaster and climate risks. Hence, it is also expected that a risk assessment be undertaken to develop a roadmap towards resilience, encompassing governance, finance, and relevant domains.
- The study will use hazard data, models, and findings from existing sources at the national level to infer and provide an actionable roadmap for the resilient telecommunication sector, with detailed recommendations on domains:
 - Policies, Institutions, and Processes (PIPs)
 - Technical Planning and Design
 - Operation and Maintenance (O&M)
 - Financial arrangements and incentives
 - Expertise

Deliverables for Task 2

Detailed actionable roadmap document, based on task 1 inputs and discussions with relevant national and subnational stakeholders, taking due consideration of the difference in scale and context, in assessing the various domains, and DRM cycle for fostering resilience of the sector.

7. Validation of data and recommendations

- All deliverables shall be reviewed through consultations with key infrastructure stakeholders (Ministry/ Departments, PSUs, private agencies, DRM institutions) in Bhutan and approved by an Appraisal and Steering Committee (A&SC) appointed and coordinated by CDRI.
- CDRI will support in the creation of a Technical Advisory Committee (TAC), including representatives from relevant government and private organizations including experts to provide regular guidance and for the review of the deliverables as submitted by the agency.
- The agency should follow internationally well-defined quality control and assurance procedures.
- The agency shall prepare presentations, policy brief(s), video(s), factsheet(s), and other required documents for the proposed assessment and roadmap.



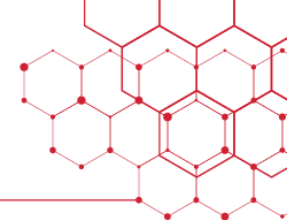
- The reports, policy brief, presentations and other documents should adhere to the publication quality criteria and style followed by CDRI, which will be shared with the Agency. The deliverables should be submitted as a **print ready document (copy edited, designed version)**.

8. Expected Timeline and Payment Schedule

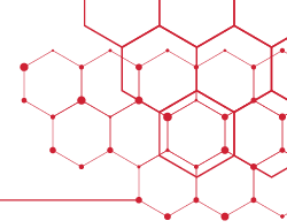
- Within a **total expected duration of approximately 10 months**, the broad timeline for various milestones and the payment schedule are given below.
- The bidders are also free to propose delivery milestones and corresponding payment schedules as per their understanding of the project requirements and objectives as given in the RFP, with justification.
- The payment schedule shall be such that the final payment on completion of the project and acceptance of deliverables shall constitute 30% of the total cost. The remaining 70% may be distributed reasonably over the project period and linked to specific deliverables.
- The budget and milestones should account for various workshops/ meetings in Bhutan required to achieve appropriate buy-in, consultation, and dissemination of the findings with key stakeholders.

Table 3: Delivery milestones and estimated payment structure

S. N.	Milestone	Description of Milestones*	Timeline T ₀ + days (number of days available for activity)	% amount of total to be disbursed after completion and verification of milestone
1	Contract Effectiveness Date	-	T ₀	0
	Inception meeting/workshop	Meeting and discussions with the relevant stakeholders in Bhutan and agreement on the proposed timeline, broad content, deliverables, and engagement process.	T ₀ + 30 days	
2	Inception Report	Inception report identifying literature, stakeholders, methodology, and descriptive work plan based on the inception meeting(s) and discussions, including workshop reports.	T ₀ + 50 days	20%
Task 1				
3	Task 1 Draft Report-1: Development of a comprehensive	Draft report compiling deliverables as specified in Task 1	T ₀ + 100 days	



S. N.	Milestone	Description of Milestones*	Timeline T ₀ + days (number of days available for activity)	% amount of total to be disbursed after completion and verification of milestone
	framework for risk and resilience assessment of the telecommunication sector			
4	Consultation Meeting -1	National consultation meeting on the framework with key inputs and feedback from TAC and stakeholders.	T ₀ + 120 days	
5	Task 1 - Draft Report 2	Draft report - 2 on a disaster risk and resilience assessment framework for the telecommunications sector and the output to include a guidance document for the country to undertake risk and resilience assessment	T ₀ + 150 days	30%
Task 2				
6	Task 2 - Deliverable: Demonstration of the framework at the national level and detailed roadmap	Draft reports compiling deliverables as specified in Task 2	T ₀ + 220 days	20%
7	Consultation Meeting - 2	<p>Consultation meeting with stakeholders to disseminate assessment findings and gather feedback through the consultative process on Task 2</p> <ul style="list-style-type: none"> • Presentation – A well-structured presentation should be developed summarizing the study. 	T ₀ + 250 days	
Final Reports and Closure				
8	Final Reports# and Project Closure - Revised submission of deliverables	<p>Finalization of assessment framework; compilation of consultation meetings, findings, assessments, and final framework for risk and resilience assessment of telecom infrastructure and roadmap for the resilient telecom sector.</p> <ul style="list-style-type: none"> • Revised Task 1 and Task 2 Reports • Policy Brief - A policy brief 	T ₀ + 270 days	20%



S. N.	Milestone	Description of Milestones*	Timeline T ₀ + days (number of days available for activity)	% amount of total to be disbursed after completion and verification of milestone
		should be developed and designed to compile the key results and recommendations from the Task 1, and 2, reports. It should include short-term, medium-term, and long-term action plans for key stakeholders.		
9	National Workshop	Launch and dissemination of guidance document, findings of study, and DRR – telecommunication sector	T ₀ + 290 days	10%

* Milestones may be defined by the Agency and explained separately also.

The final report must be submitted as a **print-ready document (proofread, copy-edited, designed version as per the CDRI brand guidelines)**.

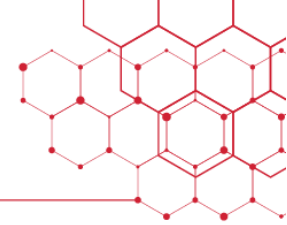
- Please note that the final negotiated timeline of milestones and deliverables shall be inserted in the contract before signing.
- The cost of logistics for organizing Workshops/stakeholder consultancy to complete the scope of work will vary based on the mode of workshops (online or in-person). Thus, the logistics costs of the workshops will be reimbursed as per actual.

[Note: Logistics does not include the Agency's staff time, or resource persons, or coordination. For web-based meetings, this does not include the cost of purchase of hardware or software, only services if any.]

9. Project management

The Client for this project is the Coalition for Disaster Resilient Infrastructure (CDRI)

- The Agency will propose a standard form for the Project Management Report (PMR) in their proposal.
- The Agency shall report and communicate the status and products of the project to the CDRI representative via a written PMR on the first business day of each month after the project's initiation.
- There will be quarterly Project Meetings following project initiation. An inception report should be provided at the first Project Meeting. All the quarterly reports and the PMRs should be communicated in the English language.
- The Agency will closely interact and report to the Client's team and TAC that will accept the deliverables.



- The Agency is encouraged to appoint a focal or contact person competent for client interactions regarding this undertaking on a regular basis, preferably in the same time zone as the Client.

10. Language and Documentation

- The working language for this project shall be English, and all final deliverables shall be in English, in both electronic format (Microsoft Word and Adobe PDF) and as bound printed volumes. The project report shall include final copies of all technical reports.
- Numerical results (shape files, spreadsheets, etc.) only need to be provided in an electronic format.

11. Licensing

All data procured and developed for this project will be done on behalf of the CDRI. The intent is that the data shall be licensed to allow for free use and distribution in a manner that follows the Open Database License (ODbL). The license includes the right of the CDRI (and sub-licensees) to freely use and distribute data through the following means:

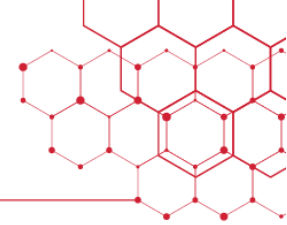
- Risk and resilience assessments.
- Research into the natural and built environment.
- Extraction of derivatives (including, but not limited to, slope and roughness) and geographical features (including, but not limited to, infrastructure footprints, fault traces and other geomorphic features). Extracted derivatives and features will be the intellectual property of the CDRI.
- Presentation in reports and presentations.
- Presentation, distribution, and analysis through the internet.

12. Public information

All work products created or produced by the Agency under the Scope of Work (SoW) shall be considered Public Information and, in a legal sense, treated the same as information generated by public entities. The Agency will not own work products created under the SoW, nor possess particular or exclusive usage rights to those work products and may not use the work products in any manner apart from the SoW except as provided by public policies governing the use of open data.

13. Confidentiality and security

- The Agency must ensure the protection and confidentiality of information and data created according to the SoW that is considered private and/or legally protected.
- The Agency must ensure the security of data and information in accordance with existing regulations in this area.



14. Fairness, Standards, and Professional Ethics

The methods and procedures used in producing information and data consistent with the SoW should follow prevailing scientific standards, techniques, and professional ethics regarding objectivity and independence.

15. Standards of quality

Information and data created according to the SoW should follow internationally accepted standards and practices.

16. Documentation

The Agency must provide documentation of the methodologies used to generate data created or produced under the SoW, including metadata for all data files.

17. Delivery

All data and work products created under the ToR shall be transmitted in their entirety and in a timely manner to the Client via commonly used electronic formats appropriate to the information or data. In addition to the formats defined above, other data examples include tabular data, which should be transmitted in Microsoft Excel, DBF, or CSV format; textual information should be transmitted in Microsoft Word or TEXT format.

18. Implementation modalities and duration

The consultancy will be carried out by contracting the services of National, Regional, or international entities (Team of Agencies) with proven track records and experience in risk assessment. Agencies or partner agencies based out of or with relevant experience in Bhutan (with local networks and staff) will be encouraged to apply. **The duration of the project is expected to be 10 months from the date of signing.**

19. Staffing requirement

The Agency is free to propose a staffing plan and skill mix necessary to meet the objectives and scope of services. If all the required skills are not available within the Consulting firm, they are encouraged to make joint ventures with other firms. Appropriately curated consortia are appreciated to fulfill the entire gamut of requirements.

The expected input of key experts and requisite expertise, qualifications, and minimum experience and number of key professional staff is given in Table 4, below. CVs of the Key Experts will be used for evaluation of Technical Bids. Any additional CVs will not be considered for evaluation. Agency is free to use any additional personnel (apart from the Proposed Team) as required to achieve the aims of the project. The CDRI reserves the right to seek more details regarding the qualifications and experience of the Key Experts.

Core team with members having relevant qualifications in Telecommunication Engineering/ Telecommunication Technology and Management/Civil Engineering/ Disaster Risk Management/ Development Planning/ Public Policy/ Disaster Risk Finance/ GIS or Remote Sensing. Team members with experience in mountainous regions, including Bhutan, will be encouraged.

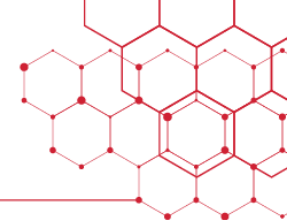


Table 4: Proposed team of Experts

Team Composition	Expertise	Minimum Years of relevant work experience
Team Leader/ Project Manager	Project and/or Operations leadership experience in the telecommunication infrastructure sector with work related to government advisory, policy, regulatory compliance planning, and preferably disaster risk management (<i>PhD is preferred</i>)	20 + years
Telecommunication Infrastructure expert (Deputy Team Leader/Deputy Project Manager)	Planning and design of telecommunication infrastructure and related assets, expertise in global and national benchmark standards, technology selection and deployment, risk and resilience assessment, feasibility studies (<i>PhD is preferred</i>)	12-15 years
Disaster and climate risk management Expert – National level, Mountain Region, South Asia	Risk and Resilience assessment of infrastructure, disaster risk reduction, emergency planning and resilience.	10 + years
Disaster Risk Finance Expert	Disaster risk finance expertise, related to infrastructure financing, cost-benefit analysis, funding mechanisms, resilience and risk of infrastructure	10 + years
GIS, Risk, and Resilience Analysis Expert	Experience in producing GIS-based maps and analysis used for infrastructure planning and risk analysis at national and sub-national levels.	7-10 years

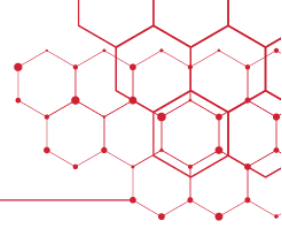
20. Facilities to be provided by the Client

The Client would provide the following support to the selected Agency:

- Introduction for the Agency to support initiation of engagement with the relevant entities.
- Designation of a focal person from CDRI for supporting liaison with the relevant entities.

21. Implementation Arrangements

After the inception stage, the Agency shall prepare a detailed schedule and task-flow diagram, which depicts the interrelationship of various tasks in the assignment and how they lead to the completion of the different tasks. The Team Leader of the Agency will be the principal contact for CDRI, including Bhutan, and will be expected to be available during project implementation. The team leader will be responsible for strategizing, coordination, quality, timeliness, and engagement during the proposed consultancy. The Agency is encouraged to appoint an additional contact person (Deputy Team Leader) who can be competently consulted on this undertaking. The



Agency shall be responsible for all aspects of the performance of services as outlined in the RFP.

22. Ownership and Confidentiality of Data and Work Products

The ownership of the raw data collected by the Agency during the study and the deliverables, including documents, maps, images, processed data, etc., will rest with CDRI. The Agency will keep the data and work products/ outcome documents confidential. Dissemination of the outputs/ outcomes/ reports/ frameworks/ tools will require the express permission of the CDRI.

23. Qualification documents:

1. Minimum Eligibility Criteria

The agency should have all the legal permissions to bid and undertake work in Bhutan. The Agency, at its own cost, should manage coordination with the CDRI Secretariat.

2. Financial Eligibility:

The Agency should have a minimum average turnover of USD 2 million (or equivalent) for the last 3 financial years.

3. Technical Eligibility:

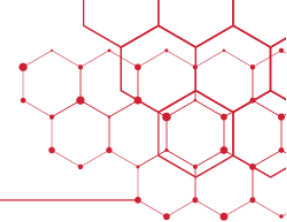
The Agency must have at least 10 years of relevant experience in the telecommunication infrastructure sector, disaster and climate resilience assessment, infrastructure planning, design and standards, governance, and policies at the international level and in India.

24. Clarifications by Bidders

- Bidders requiring any clarification on the RFP document may contact the Procurement division of CDRI in writing as per the format attached at '**Annexure-I**' by email to tender.projects@cdri.world
- CDRI shall endeavor to respond to the queries raised or clarifications sought by the bidders. However, CDRI reserves the right not to respond to any query or provide any clarification, in its sole discretion, and nothing in this clause shall be construed, taken, or read as compelling or requiring CDRI to respond to any query or to provide any clarification.
- At any time prior to the proposal due date, CDRI may, for any reason, whether at its own initiative or in response to clarifications requested by the bidder(s), modify the RFP document by way of issue of Addendum/ Corrigendum/ Clarifications. Any Addendum/ Corrigendum/ Clarifications thus issued shall be shared with all bidders by email and/or uploaded on the website of CDRI (<https://app.cdri.world/tender/>) and shall be binding on bidders and shall form part of the RFP document.

25. Pre-Proposal/ Pre-Bid Meeting

- To clarify and discuss issues with respect to the project and the RFP Document, a pre-proposal meeting will be held on **03 April 2025 from 15:00 hrs (IST)** through Video Conferencing (VC). The details of the VC would be shared nearer the time of the VC with the bidders that inform CDRI regarding their interest to participate by writing an email to tender.projects@cdri.world at least 2 working days in advance of the pre-proposal meeting.
- Prior to the pre-proposal meeting, the bidders may submit a list of queries and proposed



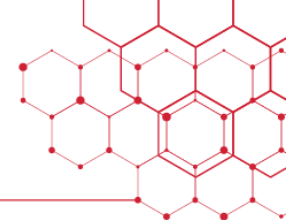
suggestions in the word format as per 'Annexure-I', if any, to the RFP requirements.

- Bidders may note that CDRI will not entertain any deviations to the RFP document at the time of submission of the Proposal or thereafter. The proposal to be submitted by the bidders will be unconditional and unqualified and the bidders will be deemed to have accepted the terms and conditions of the RFP document with all its contents. Any conditional proposal shall be regarded as non-responsive and would be liable for rejection.
- In case of any change in the schedule of the pre-proposal meeting, the same will be communicated to bidders through email and/or by posting on the CDRI website <https://app.cdri.world/tender/>
- Attendance of the bidders at the pre-proposal Meeting is not mandatory. CDRI will endeavor to respond to all queries received from all bidders, irrespective of the attendance of the bidder in the pre-proposal meeting.
- No interpretation, revision, or other communication from CDRI regarding this solicitation is valid unless in writing. CDRI may choose to send to all bidders whose proposals are under consideration, in writing or by any standard electronic means such as e-mail or by uploading on CDRI website of responses, including a description of the enquiry but without identifying its source to all the bidders.

26. Evaluation

1. The agency will be selected following a **Quality Cum Cost Basis (QCBS)** of selection.
2. Proposals shall be evaluated as follows: **Evaluation Criteria for Technical Bids 100 points:**

S. N.	Criteria	Max points
1.	Consultancy Firm's specific experience	30 points
i.	Number of completed / ongoing (>75%*) projects in the telecommunications sector, conducting evaluations of the integrated programme with a focus on risk and resilience of telecommunication infrastructure, and multi-hazard conditions, internationally (2 marks for each project)	6
ii.	Number of completed / ongoing (>75%*) projects in the telecommunications sector, conducting evaluations of the integrated programme with a focus on risk and resilience of telecommunication infrastructure, and multi-hazard conditions, in Bhutan (2 marks for each project)	6
iii.	Number of projects in the development of frameworks for disaster & climate risk and resilience assessment at subnational, national, or international level (1 mark for each project)	3
iv.	Number of projects in the development or assessment of Policies, Institutions, and Processes (PIPs), Technical Planning and Design procedures, standards, and codes for the telecommunications sector (1 mark for each project)	3
v.	Number of projects in developing Operation and Maintenance (O&M) frameworks, guidelines, and strategies, for the telecommunications sector (1 mark for each project)	3
vi.	Number of projects in expertise (capacity) assessment, including capacity development and knowledge management for the telecommunications sector (1 mark for each project)	3

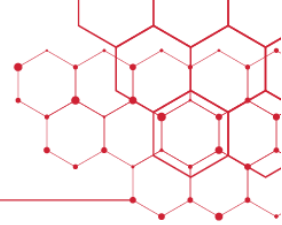


vii.	Number of projects completed or ongoing (>75%*) on hazard analysis, hazard modelling, and hazard impact assessment on telecommunication assets; vulnerability assessment of telecommunication infrastructure (1 mark for each project)	3
viii.	Number of projects on financial analysis for the effectiveness of resilience measures in an integrated system approach. This may include projects with Return on Investment, Value for Money, Cost-benefit analysis, and techniques for the telecommunication sector (1 mark for each project)	3
*(Onus of providing proof of >75% completion lies with the Agency. Decision of Evaluation Committee shall be final.)		
2.	Qualifications and relevant experience of Key Staff	30 points
i.	Team Leader/ Project Manager	10
ii.	Telecommunication Infrastructure expert (Deputy Team Leader/Deputy Project Manager)	7
iii.	Disaster and climate risk management Expert – National level, Mountain Region, South Asia	5
iv.	Disaster Risk Finance Expert	5
v.	GIS, Risk and Resilience Analysis Expert	3
3.	Methodology	40 points
i.	Understanding of ToR	10
ii.	Acceptability and detailing of methodology and work plan	20
iii.	Approach for project rollout and operations	5
iv.	Innovation and Future Perspective	5

The Qualifications and relevant experience of Key Staff will be evaluated based on the following sub-criteria:

Sub criteria	Sub-Points (% of max points)	Consideration
Educational qualification (in the field relevant to the allotted role)	20%	100% for PhD 80% for Masters 60% for Bachelor's degree
Professional project experience (in the required area of assignment i.e. telecommunications, disasters management, infrastructure planning)	50%	Relevant projects of at least 6 months duration: 10 projects – 100 % 8 projects – 80 % 6 projects – 60 % 4 projects – 40 % 2 projects – 20 %
International experience	30%	More than 5 countries – 100% 3-5 countries– 75% 1-2 countries – 50%

Rating Multiplier (Methodology)	
Level of Responsiveness	Rating
Irrelevant	0%
Poor	25%
Satisfactory	50%
Good	75%
Very Good	90%
Excellent	100%



The applicant scoring equal to or more than 70% in the technical evaluation shall be considered for financial evaluation. **80% weightage will be awarded for the Technical Proposal, and 20% weightage will be awarded for the Financial Proposal.** Technical Bid will be assigned a technical score (Ts) out of a maximum of 100 points.

The agency's Financial Scores (Fn) are normalized as per the formula below:

$F_n = F_{min}/F_b * 100$ (rounded off to 4 decimal places) Where,
Fn = Normalized commercial score for the agency under consideration

Fb = Absolute financial quote for the agency under consideration

Fmin = Minimum absolute financial quote Formula for final evaluation:

Composite Score (S) = $T_s * 0.80 + F_n * 0.20$

The agency with the highest Composite Score (S) would be considered for the award of the contract and will be called for negotiations if required.

27. Proposal Submission

Please share proposals in **two separate PDF files**:

1. **Technical Proposal (Open PDF file)**
2. **Financial Proposal (Password-Protected PDF File) in INR or USD**

Note: The Financial Proposal PDF must be password-protected. The password for the FINANCIAL PROPOSAL MUST NOT BE SHARED ALONG WITH THE PROPOSAL. The password for the financial proposal will be requested separately.

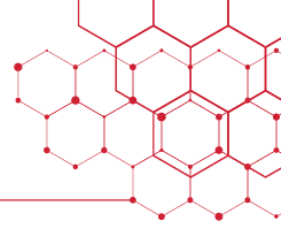
The proposal must be sent to the email address tender.projects@cdri.world with the subject line: "National Disaster Risk and Resilience Assessment and Roadmap for the Telecommunication Sector for Bhutan."

Interested bidders are requested to submit their proposal by 23:59 hrs (IST) on 01 May 2025. Responses received after the stipulated time or not in accordance will be summarily rejected.

Please ensure that your proposal is sent ONLY to the ABOVE-MENTIONED email ID before the closing date & time. Proposals sent/copied to any other email ID (other than the above) OR received after the bid closing date & time (mentioned above) will not be entertained.

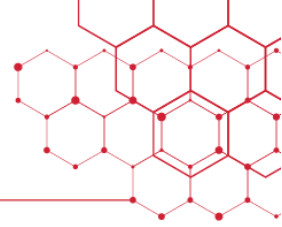
28. Other Terms & Conditions

- i. The proposals should be valid for 120 days after the final submission date.
- ii. An Association/ Joint Venture/ Consortium is allowed. Bidders participating as a consortium must submit a consortium agreement clearly defining the lead agency along with the proposal, clearly outlining the roles, responsibilities, and obligations of each member. The association of Agencies shall be evaluated as a single entity as per the qualification/eligibility criteria outlined in the RFP. If any member of the Association of Agency is dropped



during or at any time after the RFP stage, such an association of the Agency is liable to be rejected by CDRI or lead to the termination of the contract.

- ii. CDRI reserves the right to cancel this Request for Proposal before or after the receipt of proposals or after opening the proposal and call for fresh proposals. CDRI also has the right to reject any proposal without assigning any reason.
- iii. Proposals incomplete in any respect will not be considered.



Annexure-I: Format of Pre-Proposal Queries

Date:

To

Procurement Division
Coalition for Disaster Resilient Infrastructure (CDRI)
New Delhi-110001

Sub: Hiring an agency for National Disaster Risk and Resilience Assessment and Roadmap for the Telecommunication Sector for Bhutan

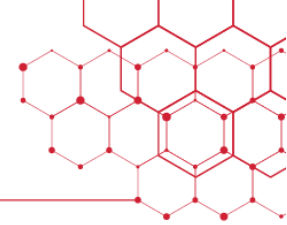
Dear Ma'am/Sir,

Following are the clarifications and comments from the terms and conditions and scope of work for the subject RFP. These clarifications are exhaustive.

S. N.	Clause no. and page reference	RFP text	Query
1			
2			

Yours faithfully,

Authorized Signatory
(with Name, Designation, Contact no. and Seal)



Annexure-II: AGENCY’S ORGANIZATION AND EXPERIENCE

A - Agency’s Organization

[Provide here a brief description of the background and organization of your firm/entity and each associate for this Assignment/job. The brief description should include ownership details, date and place of incorporation of the firm, objectives of the firm, etc. Also, if the Agency has formed a consortium, details of each of the member of the consortium, name of lead members, etc. shall be provided]

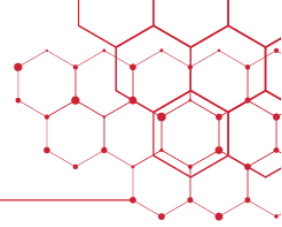
B - Agency’s Experience

[Using the format below, provide information on each Assignment/job for which your firm, and each partner in the case of a consortium or joint venture, was legally contracted either individually as a corporate entity or as one of the major partners within an association, for carrying out consulting Assignment/job similar to the ones requested under this Assignment/job. In the case of a consortium, association of Agencies, the Agency must furnish the following information for each of the consortium members separately]

1. Firm’s name:

1	Assignment/job name:	
1.1	Description of Project	
1.2	Approx. value of the contract (in Rupees):	
1.3	Country:	
1.4	Location within the country:	
1.5	Duration of Assignment/job (months):	
1.6	Name of Employer:	
1.7	Address:	
1.8	Total No of staff months of the Assignment/job:	
1.9	Approx. value of the Assignment/job provided by your firm under the contract (in Rupees):	
1.10	Start date (month/year):	
1.11	Completion date (month/year):	
1.12	Name of Agencies involved in the project who will also be involved in the CDRI project, if any:	

Note: Please provide documentary evidence from the client i.e. copy of the letter of award/ contract/ work order/ completion certificate for each of the above-mentioned assignments. The experience shall not be considered for evaluation if such requisite support documents are not provided with the proposal.

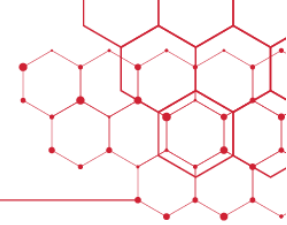


Annexure-III: DESCRIPTION OF APPROACH AND METHODOLOGY FOR PERFORMING THE ASSIGNMENT/JOB

[Approach, methodology, and work plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal divided into the following three chapters:

- a) Technical Approach and Methodology,
 - b) Work Plan, and
 - c) Organization and Staffing,
- a) Technical Approach and Methodology. In this chapter you should **explain your understanding** of the objectives of the Assignment/job, approach to the Assignment/job, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.
- b) Work Plan. The Agency should **propose and justify** the main activities of the Assignment/job, their content and duration, phasing and interrelations, milestones (including interim approvals by CDRI), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing an understanding of the TOR and the ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here.
- c) Organization and Staffing. The Agency should **propose and justify** the structure and composition of your team. You should list the main disciplines of the Assignment/job, the key expert responsible, and the proposed technical and support staff.

Note: Please provide details for categories a, b, and c separately and ensure the total (a+b+c) pages do not exceed 50 pages.



Annexure-IV: CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

CVs of proposed staff may be provided in any existing format but should include the following information:

1. Proposed Position:
2. Name of Firm: [Insert name of firm proposing the staff]
3. Name of Staff: [Insert full name]
4. Date of Birth:
5. Nationality:
6. Education: [Indicate college/university and other specialized education of staff member, giving names of institutions, degrees obtained, and dates of obtainment]
7. Membership of Professional Associations:
8. Other Training:
9. Countries of Work Experience: [List countries where staff has worked in the last ten years]:
10. Languages: [For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]
11. Employment Record: [Starting with the present position, list in reverse order every employment held by staff member since graduation, giving for each employment (see format here below):

From [Year]:

To [Year]:

Employer:

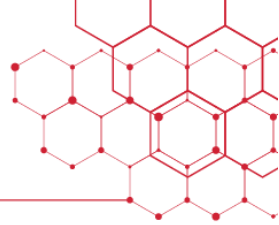
Positions held:

12. Detailed Tasks Assigned [List all tasks to be performed under this Assignment/job]

13. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned

[Among the Assignments/jobs in which the staff has been involved, indicate the following information for those Assignments/jobs that best illustrate staff capability to handle the tasks listed under point 12.]

Name of Assignment/job or project:



Year:
Location:
Employer:
Main project features:
Positions held:
Activities performed:

14. Certification:

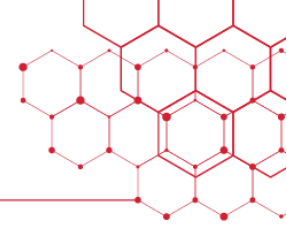
I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal if engaged.

[Signature of the staff member or an authorized representative of the staff]

[Full name of authorized representative]:

Date:

Place:



Annexure-V: FINANCIAL PROPOSAL SUBMISSION FORM

[Location, Date]

To: [Name and address of CDRI]

Dear Sir/Madam:

We, the undersigned, offer to provide the consulting services for Assisting Coalition for Disaster Resilient Infrastructure to [Name of the Assignment] under CDRI's three-year work plan in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal.

Our Financial Proposal is for the sum of INR/USD. _____/- [Insert amount(s) in words and figures]. This amount represents the total cost of the project and is inclusive of all taxes. The estimated amount of taxes is INR/USD. _____ [Insert amount in words and figures] which may be confirmed or adjusted, if needed.

We hereby confirm that the financial proposal is unconditional, and we acknowledge that any condition attached to the financial proposal shall result in the rejection of our financial proposal. Our Financial Proposal shall be binding upon us up to the expiration of the validity period as indicated in the RFP.

Commissions and gratuities, if any, paid or to be paid by us to an agent or any third party relating to the preparation or submission of this Proposal and Contract execution if we are awarded the Contract, will be solely borne by us. CDRI is not bound to reimburse these expenses to us.

We understand you are not bound to accept any Proposal you receive.

We remain,

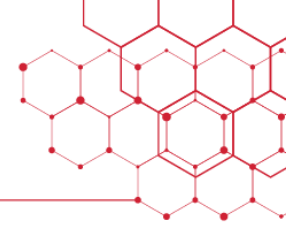
Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Firm:

Address:



Annexure-VI: Draft Contract Template

Vendor Contract

This Contract is made on this **xx day of xxxxxx 2025** (hereinafter called "**Contract**") by and between Coalition for Disaster Resilient Infrastructure, an International Organisation, *vide* the Gazette Notification F. No. D-II/451/16(3)/2021 issued by the Government of India, with its registered office at 4th and 5th Floor, Shriram Bhartiya Kala Kendra, 1, Copernicus Marg, New Delhi-110001 (hereinafter referred to as "**CDRI**") and **xxxxxxx** having its office at xxxxxx (hereinafter referred to as "**Vendor**").

The CDRI and the Vendor are individually referred to as Party and collectively as Parties.

WHEREAS

- A. The CDRI, which is an International Organization ("hereinafter referred to as "IO") *vide* gazette notification dated 11 January 2024 issued by the Government of India and published on 2 February 2024. CDRI is a multi-stakeholder global partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and knowledge institutions that aim to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development.
- B. The Vendor understands and acknowledges the international legal standing of CDRI and its Secretariat and agrees to abide by all CDRI policies and the immunities and privileges granted to CDRI under the United Nations (Privileges and Immunities) Act, 1947 (hereinafter referred to as "**the UN Act**") *vide* gazette notification F. No. D-II/451/16(3)/2021 issued by Government of India.
- C. The Vendor further acknowledges and agrees that nothing in this Agreement shall be deemed as a waiver, express or implied, of any of the Privileges and Immunities as granted to CDRI or otherwise and agrees to abide by the same.
- D. Upon representations and assurances given by the Vendor, CDRI has decided to engage the Vendor in providing services as provided in this Contract.
- E. The Vendor further agrees to abide by all policies of CDRI as of the date and as amended from time to time, which shall govern the present Agreement. Any breach of any and/or all of the provisions of the policies of CDRI shall amount to a breach of the terms of this Contract. The amended policies as amended and notified on the website of CDRI shall constitute notice of the amendment to the Vendor.

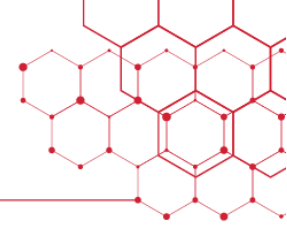
Now, therefore, in consideration of the mutual promises, covenants, and conditions contained herein, and intending to be legally bound hereby, the CDRI and the Vendor agree as follows:

1. Scope of Work (SOW):

The CDRI agrees to engage the Vendor to provide services as would be detailed from time to time in SOW, which shall form an integral part of this Contract, whenever the CDRI requires to avail services from the Vendor against payment to be mentioned in the SOW as annexed herewith as **Annexure-1** on terms and conditions provided herein below. It is clarified that the execution of this Contract does not mean/ensure that the Vendor shall be provided work order/s as a matter of right. The same is at the discretion of CDRI.

2. Term and Termination:

2.1 This Contract shall be effective from **xxxxxxx 2025** and shall remain in force **till xxxx 2025** unless terminated in accordance with this Contract or mutually extended by both the Parties as a written modification to this Contract. The Vendor acknowledges that extension of the term of this Contract is at the sole discretion of CDRI, and the Vendor shall not claim it as a matter of right under any circumstances whatsoever.



2.2 This Contract may be terminated by either Party before the expiry of the term mentioned in clause 2.1 above by giving to the other Party [30] days advance written notice. Any SOW pending delivery from the Vendor at the time of such termination shall be completed by the Vendor in terms of the SOW, and the CDRI shall make payment against the delivery of the services as agreed under the terms and conditions of the SOW.

2.3 The CDRI shall have the right to terminate the Contract without notice on any of the following grounds:

- 2.3.1 If the Vendor and/or its proprietor/promoter/director/employee is accused of any offence including but not limited to offence involving moral turpitude/convicted of a criminal offence by a competent Court of Law/ Authority or has any sort of legal proceedings of a criminal nature pending against him/her;
- 2.3.2 If CDRI gains knowledge that the Vendor and/or its proprietor/promoter/director/employee, directly or indirectly, has committed any corrupt, fraudulent, collusive, and/or coercive practices, as defined under CDRI policies and/or generally known;
- 2.3.3 If CDRI gains knowledge that the Vendor or its proprietor/promoter/director/employee, directly or indirectly, has committed or accused of any violation, breach of any child protection laws and/or any laws protecting women;
- 2.3.4 If CDRI gains knowledge that the Vendor or its proprietor/promoter/director/employee, directly or indirectly, is found committing a breach of the Confidentiality terms and conditions set in this Contract;
- 2.3.5 In the event of misconduct, disobedience towards the CDRI and/or its employees by the Vendor or any of the representatives or employees of the Vendor or non-performance of the Vendor's obligations towards providing the CDRI with services as per the CDRI's satisfaction and established industry norms, in terms of the SOW.

2.4 In case of termination of the Contract by the CDRI due to Clause 2.3 above, the CDRI has the right to recover all or any amounts paid as advance to the Vendor withhold or renegotiate the amount payable to the Vendor and the right to restrict any payment to the Vendor towards non-cancellable obligations performed by the Vendor as required to be provided to the CDRI under the SOW till such termination.

2.5 In the event the Vendor's, its proprietor/promoter/director/employee's actions are found being a hinderance to the immunities/privileges granted to CDRI, the same shall constitute breach of the contract and CDRI may take necessary action.

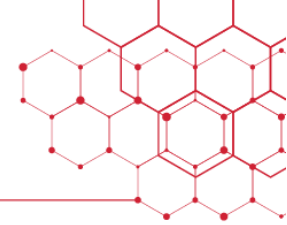
3. Fee & Payment Schedule:

3.1 **Fee:** The vendor shall be compensated with a total amount of **xxxxxxx** for delivering services in accordance with the Scope of Work (SOW) detailed in **Annexure 1**. This payment aligns with the vendor's Technical and Financial Proposals, attached as **Annexures 2 and 3**, respectively.

3.2 **Payment Schedule:** Payments will be made upon satisfactory completion of the tasks, and approval by competent authorities based on the following deliverables.

S. N.	Deliverables	Payment Terms (% of Contract Price)	Amount (USD/INR)
1			
2			
3			
4			

3.3 **Taxes** The Vendor acknowledges that CDRI is exempt from taxes under the Headquarters Agreement with the Government of India and the United Nations (Privileges and Immunities) Act, 1947. It is hereby reiterated that CDRI shall not make any deductions from the payments. The Vendor agrees to take on the sole responsibility for filing tax returns and paying all applicable taxes, duties, or levies arising from this contract under the relevant laws.



3.4 Payment shall be made directly to the below-mentioned bank account of the Vendor through banking channels using Cheque/SWIFT or any other online payment gateway authorized by the government for such payments within 30 calendar days from the date of receipt of valid invoice by the CDRI.

Bank Details:

Account Name:	
Name of the Bank:	
Branch Address:	
Account No.:	
SWIFT:	

3.5 The Vendor assumes responsibility for the timely submission of valid invoices for supplies/services made to the CDRI. The invoice should be addressed and submitted to the CDRI's Office as given below:

Coalition for Disaster Resilient Infrastructure (CDRI)
4th and 5th Floor, Shriram Bhartiya Kala Kendra, 1, Copernicus Marg, New Delhi-110001
GSTIN:

3.6 All bills for expenses in the original must be submitted to the CDRI. No payments will be disbursed in case of delayed submission. In case of any discrepancy or non-submission of valid documentary proof in support of expenses as required or requested by the CDRI or delayed, deficient delivery of services by the Vendor, the CDRI has a right to withhold payment to the Vendor till the time such discrepancy is addressed by the Vendor to the satisfaction of the CDRI or the CDRI may, in its sole discretion, decide to pay proportionately for such delivery/services.

3.7 The CDRI shall raise any disputes on any invoice within 15 calendar days of receiving such invoice after which they shall be considered undisputed. CDRI shall ensure that all undisputed invoices are paid on time, and the Vendor shall not reissue undisputed invoices.

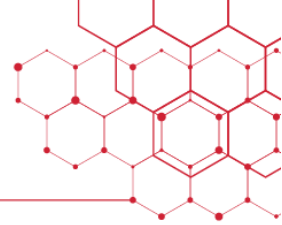
4. Confidentiality:

4.1 The Parties agree that as a part of the work under this Contract, the Vendor may be given secured access to proprietary and confidential information of the CDRI or/and its employees, including but not limited to personnel and financial, program, and/or project records of the CDRI and of the clients/partners of the CDRI hereinafter collectively referred to as the "Confidential Information") shall be treated and regarded as confidential and proprietary and trade secret information which is the sole and exclusive property of the CDRI.

4.2 The Receiving Party agrees to hold such Confidential Information in strict confidence and implement appropriate administrative, technical, and physical safeguards, to protect the security, confidentiality, and integrity of such confidential information, and protect against unauthorized access to or use of such confidential information. The receiving party agrees to take all reasonable measures (including, but not limited to, legal proceedings) to restrain its representatives from disclosing or improper use of confidential information, whether directly or indirectly, to a third party without the prior written consent of the disclosing Party.

4.3 Notwithstanding the foregoing, Confidential Information and information of the nature set out in Clause 4.2 does not include information: (i) in the public domain; (ii) that later becomes public, unless such information is made public by a Party otherwise than as a result of the breach of this Contract; (iii) made available by a third party without breach of confidentiality; (iv) already known or already in the lawful possession of the Party receiving Confidential Information as of the date of its disclosure by the Party disclosing such Confidential Information; or (iv) required to be disclosed to a Party's advisors and/or under applicable laws or any other regulatory requirements and/or under relevant professional and ethical guidelines.

4.4 The Receiving Party further acknowledges and agrees that a breach of any of the terms contained in this Contract may result in irreparable and continuing damage to the CDRI for which damages may not be adequate, and the CDRI is therefore entitled to seek injunctive relief including but not limited to the enforcement of confidentiality obligations hereunder without prejudice to any other right that the CDRI may be entitled to in law or under this Contract.



- 4.5 The Vendor shall not retain CDRI's confidential information beyond the contract term and shall destroy and/or return all such data within 30 days of contract termination.
- 4.6 In case of a data breach, the Vendor must notify CDRI within 24 hours and cooperate in remedial actions.
- 4.7 The Parties' obligations under Section 4 shall survive the termination or expiration of this Contract.

5. Intellectual Property & other Proprietary Rights:

- 5.1 Except as is otherwise expressly provided in writing in the Contract, the Vendor agrees and acknowledges that CDRI shall at all given points of time be the owner of all intellectual property and other proprietary rights including, but not limited to, patents, copyrights, and trademarks, trade-secret with regard to products, processes, inventions, ideas, know-how, or documents and other materials which the Vendor has developed for CDRI under the Contract and which bears a direct relation to and/or are produced, prepared, collected in consequence of, or during the course of, the performance of the Contract. The Vendor acknowledges and agrees that such products, documents and other materials constitute works made for hire for CDRI.
- 5.2 To the extent that any such Intellectual Property or other Proprietary Rights consist of any Intellectual Property or other Proprietary rights of the Vendor: (i) that pre-existed the performance by the Vendor of its obligations under the Contract, or (ii) that the Vendor may develop or acquire, or may have developed or acquired, independently of the performance of its obligations under the Contract, CDRI does not and shall not claim any ownership interest thereto, and the Vendor grants to CDRI, a perpetual license to use such Intellectual Property or other Proprietary Right solely for and in accordance with the requirements of the Contract.
- 5.3 At the request of CDRI, the Vendor shall take all necessary steps, execute all necessary documents and generally assist in securing such Proprietary Rights and transferring or licensing them to CDRI in compliance with the requirements of the Contract.
- 5.4 Subject to the foregoing provisions, all maps, drawings, photographs, mosaics, plans, reports, estimates, recommendations, documents, and all other data compiled by or received by the Vendor under the Contract shall be the property of CDRI, and shall be made available for use or inspection by CDRI at reasonable times and in reasonable places, shall be treated as confidential, and shall be delivered only to CDRI's authorized officials on completion of work under the Contract.

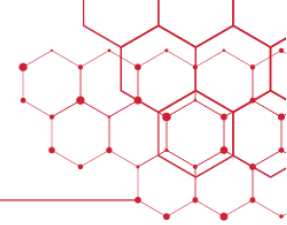
6. Publicity and use of the Name, Emblem or official Seal of CDRI:

The Vendor undertakes to not advertise or otherwise make public for purposes of commercial advantage or goodwill that it has a contractual relationship with CDRI, nor shall the Vendor in any manner whatsoever use the name, emblem or official seal of CDRI, or any abbreviation of the name of Coalition for Disaster Resilient Infrastructure in connection with its business or otherwise without the written permission of CDRI.

7. Insurance and Liability

- 7.1 The Vendor shall provide and thereafter maintain insurance against all risks in respect of its property and any equipment used for the execution of this Contract.
- 7.2 The Vendor shall provide and thereafter maintain all appropriate workmen's compensation insurance, or its equivalent, with respect to its employees, to cover claims for personal injury or death in connection with this Contract.
- 7.3 The Vendor shall also provide and thereafter maintain liability insurance in an adequate amount to cover third party claims for death or bodily injury, or loss of or damage to property, arising from or in connection with the provision of services under this Contract or the operation of any vehicles including boats, airplanes or other equipment owned or leased by the Vendor and/or its agents, servants, employees or sub-contractors performing work or services in connection with this Contract.

8. Consequences of breach



- 8.1 In the event of a breach of Contract by either party that is not resolved within 30 days of notification of such breach, the non-breaching party reserves the right to pursue arbitration.
- 8.2 A breach of this Contract includes but is not limited to failure to deliver agreed-upon services, disclosure of confidential information, or non-compliance with contractual terms.
- 8.3 The Parties agree that any breach of Contract shall be resolved through negotiation in good faith, with Liquidated Damages being pursued only if an amicable resolution cannot be reached.
- 8.4 The Vendor acknowledges that any breach of this Contract may result in irreparable harm to CDRI, and CDRI may seek liquidated damages that shall not exceed 10% of the total estimated value (Clause 3- Payment schedule) of the Contract. This provision shall survive the termination of the Contract.
- 8.5 Upon a material breach of this Contract, CDRI may terminate the Contract, and the Vendor shall not be entitled to receive any agreed payments upon termination of the Contract. However, CDRI may consider making payment for the part satisfactorily performed based on Quantum Meruit as assessed by it, if such part is of economic utility to the CDRI.
- 8.6 In the event of a breach, the Vendor shall be responsible for reimbursing CDRI for any costs incurred to remedy the breach, including but not limited to legal fees and expenses.

9. Relationship

- 9.1 For all purposes and in the performance of its services as mentioned in this Contract the Vendor shall be deemed to be an independent Vendor on a 'principal' to 'principal' basis and shall in no manner whatsoever create any agency.
- 9.2 Under no circumstances shall this Contract be deemed to be a Contract of partnership or of joint venture.
- 9.3 Vendor acknowledges and agrees that as an independent contractor, the Vendor is not entitled to and will not make any claim to the CDRI or to the CDRI's clients or business partners for any employment-related benefits for the employees of the Vendor.

10. Non-Discrimination

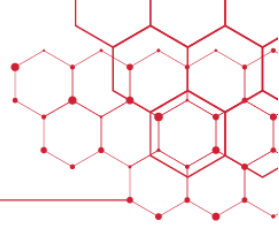
The CDRI adopts a comprehensive policy of being a zero-tolerance zone in respect of discrimination at the workplace on the basis of race, color, religion, gender (including pregnancy and gender identity), national origin, disability, age, veteran status, sexual orientation, genetic information, marital status, parental status, political affiliation, and any other conduct and the Vendor is required to strictly adhere to applicable policies, as on date and as amended from time to time. The Vendor and its employees are required to act at all times in a manner that is in compliance with the applicable policies of CDRI.

11. Child Labour

The Vendor acknowledges that CDRI strictly prohibits any direct or indirect engagement of children and prohibits the engagement of adolescents in any manner whatsoever as prohibited under the law including but not limited to hazardous occupations and processes and confirms the adoption and enforcement of a child-safe environment, and the Vendor agrees to strictly comply with such policy and in accordance with standards prescribed by the International Labor Organization in its Convention No. 138 and Convention No. 192.

12. Drug-Free Workplace

- 12.1 The Vendor acknowledges and agrees to adhere to a drug-free workplace policy that meets the requirements of a drug-free workplace, and the Vendor is required to comply with such policy strictly.
- 12.2 In line with the drug-free policy of the CDRI, the Vendor confirms that all of its employees, directors, and/or any person who will engage with the CDRI, to the best of its knowledge, have never been convicted of a narcotics offense or have been engaged in drug trafficking and/or have any pending proceedings in this regard. The Vendor itself and on behalf of its employees hereby declare that it and, to the best of its knowledge, its employees are not involved in any such activity.



13. Adherence to CDRI Policies

The Vendor is aware and agrees to abide by the CDRI policies, as may be promulgated from time to time. Any breach of the same shall be actionable as per the appropriate procedure. Additionally, the Vendor is aware that CDRI has a zero tolerance towards the acts of sexual exploitation, discrimination, abuse, and harassment; and the acts of fraud, bribery and corruption.

14. Return of Records and Information:

At the written request sent by CDRI or in the event of termination/expiry of this Contract or immediately after the Vendor no longer requires such materials to perform Vendor's obligations, the Vendor within Forty Eight (48) hours shall return to the CDRI and/or shall destroy all material including all records, memoranda, drawings, blueprints, manuals, letters, notes, notebooks, reports, computer discs, laptops and other electronic and/or gadgets, materials containing Information, documents confidential and proprietary in nature to the CDRI or otherwise, along with all copies thereof that Vendor may obtain or produce.

15. Indemnity

15.1 The Vendor shall indemnify, hold and save harmless and defend at its own expense, CDRI, its directors, partners, officers, employees, representatives, and agents from and against all suits, claims, demands, and liability of any nature or kind, including their costs and expenses, arising out of acts or omissions of the Vendor or Vendor's Personnel, in the performance of the Contract. This provision shall extend, inter alia, to claims and liability in the nature of workmen's compensation, products liability and liability arising out of the use of the patented inventions or devices, copyrighted material or other intellectual property by the Vendor or its Personnel. For the purpose of this Clause, reference to the CDRI shall also include the CDRI's clients and partners whose programmes are being implemented by the CDRI.

15.2 This Clause shall survive the termination or expiration of this Contract.

15.3 The Vendor shall be responsible for and deal with all claims brought against it by its Personnel, including individual contractors and consultants.

16. Limitation of Liability

Notwithstanding anything to the contrary contained herein in this Contract, in no event, the maximum aggregate liability of both Parties shall exceed the amount payable to the Vendor for the performance of services under the Contract.

17. Assignment and Sub-license

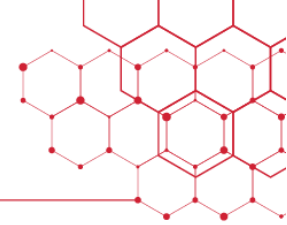
The Vendor shall not assign, sub-license, transfer, pledge or make other disposition of this Contract or any part thereof, or any of the Vendor's rights, claims or obligations under this Contract except with the prior written consent CDRI.

18. Sub-Contracting

In the event the Vendor requires the services of sub-vendors, the Vendor shall obtain the prior written approval and clearance of the CDRI for all sub-vendors. The approval of the CDRI of a sub-vendor shall not relieve the Vendor of any of its obligations under this Contract. The terms of any sub-vendor-contract shall be subject to and conform with the provisions of this Contract.

19. Force majeure

19.1 Neither Party shall be liable for any failure or delay in performing its obligations under this Agreement, to the extent such failure or delay is caused by events beyond its reasonable control, including but not limited to acts of God, war, civil commotion, natural disasters, government restrictions, strikes, labor disputes, epidemics, pandemics, or significant disruptions in infrastructure, provided that the affected Party promptly notifies the other Party of such event and takes all reasonable steps to mitigate the effects of the Force Majeure event.



- 19.2 If a Party wishes to claim protection in respect of an Event of Force Majeure, it shall as soon as possible following the occurrence or date of commencement of such Event of Force Majeure, notify the other Party of the nature and expected duration of such Event of Force Majeure and shall thereafter keep the other Party informed until such time as it is able to perform its obligations. The Parties shall use their reasonable endeavors to:
- i) overcome the effects of the Event of Force Majeure;
 - ii) mitigate the effect of any delay occasioned by any Event of Force Majeure, including by recourse to alternative mutually acceptable (which acceptance shall not be unreasonably withheld by either Party) sources of services, equipment and materials; and
 - iii) ensure resumption of normal performance of this Agreement as soon as reasonably practicable and shall perform their obligations to the maximum extent practicable, provided that neither Party shall be obliged to settle any strike, lock out, work stoppage, labour dispute or such other industrial action by its employees.
- 19.3 If either Party has a reasonable apprehension that the Force Majeure Event is likely to continue for 30 days after the commencement of the Force Majeure Event, then, notwithstanding anything contained in this Contract, either Party will have the right to terminate the Contract.

20. Settlement of Disputes:

- 20.1 **Amicable Settlement:** The performance of this Contract is governed by the terms and conditions of this Contract. In case a dispute arises between the Parties regarding any matter under this Contract, either Party may send a written Notice of Dispute to the other Party. The Party receiving the Notice of Dispute will review the Notice and respond to it in writing within thirty (30) days after its receipt. If that Party fails to respond within thirty (30) days, or the dispute cannot be amicably settled within sixty (60) days following the response of that Party, that matter shall be resolved through Arbitration.
- 20.2 **Arbitration:** In the case of a dispute arising upon or in relation to or in connection with this Contract between the Parties, which has not been settled amicably in accordance with Clause 20.1 above, either Party shall refer the dispute to arbitration in accordance with the United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules then obtaining. The seat of arbitration will be New Delhi, India. The Parties agree to be bound by the arbitration award rendered under this Clause as the final adjudication of the dispute.
- 20.3 Arbitration proceedings shall be held in New Delhi, India, and the language of the arbitration proceedings and that of all documents and communications between the Parties shall be English.

21. Privileges and Immunities

Nothing in or relating to the Contract shall be deemed a waiver, express or implied, of any of the privileges and immunities of CDRI.

22. Amendment

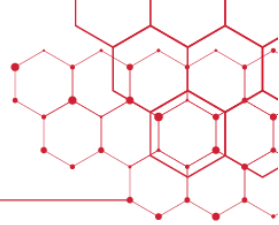
This contract may be amended by a mutual written agreement between the Parties.

23. Severability

If any provision or condition of this Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or enforceability shall not affect the validity or enforceability of any other provisions and conditions of this Contract.

24. Entire Contract

This Contract and the relevant SOW constitute the entire understanding of the Parties relating to the provision of services being provided by the Vendor to the CDRI and any prior or contemporaneous Contracts or understandings



relating thereto are merged herein or superseded hereby. This Contract cannot be amended except with mutual consent of the Parties duly executed in writing.

25. Notices

All notices, requests, amendments, demands, and other communications hereunder shall be in writing and shall be deemed to have been duly given if delivered or if mailed to the Parties at their respective addresses available in their records (or at such other address as shall be given in writing by either Party to the other) by electronic mails, registered post prepaid and acknowledgment requests.

26. Waiver

The failure to exercise any right provided in this Agreement shall not be a waiver of prior or subsequent rights.

IN WITNESS WHEREOF, the Parties have executed this Contract to be effective the date set forth below.

By:

<p>Coalition for Disaster Resilient Infrastructure (CDRI) Name: Designation: Signature: (Authorized Signatory)</p>	<p>Vendor Name: Designation: Signature: (Authorized Signatory)</p>
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