

Request for Proposal

Date: 30 August 2024

Hiring an organization for Infrastructure Risk Analysis and Building on the Global Infrastructure Risk Model and Resilience Index

1. Background

The Coalition for Disaster Resilient Infrastructure (CDRI) is a multi-stakeholder global partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector, and academic and knowledge institutions. It aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development. CDRI's vision, mission, goal, and objectives are explicitly linked to the post-2015 development agendas. The Coalition will also contribute to the resilience of global infrastructure systems in an increasingly interconnected world.

2. CDRI's Biennial Report on Global Infrastructure Resilience

In October 2023, CDRI released the inaugural edition of its Biennial Report, titled "Global Infrastructure Resilience: Capturing the Resilience Dividend." This report serves as a key tool for engaging and directing the attention of a global audience, including political leaders, policymakers, practitioners, and researchers, toward the multifaceted and critical challenges confronting disaster and climate-resilient infrastructure. It plays a pivotal role in shaping CDRI's Strategic Priorities revolving around Research, Knowledge Management, and Capacity Building.

Launched as the centerpiece of CDRI's first Biennial Report, the Global Infrastructure Resilience Index (GIRI) is the first-ever fully probabilistic model to identify and estimate the risks associated with major hazards (earthquakes, tsunamis, tropical cyclone winds and storm surges, landslides, floods, and hydrological drought) across principal infrastructure sectors (power, oil and gas, telecommunications, ports and airports, roads and railways, water and wastewater, health, education, and commercial, industrial and residential buildings). Going forward, CDRI envisions GIRI as an evolving tool that adapts to new scientific insights and data improvements.

3. Purpose of this Assignment

CDRI aims to hire an organization (**consortiums are allowed**) for risk modelling activities as part of the Second Biennial Report preparation. The organization will be responsible for a variety of risk assessments and analyses based on the GIRI methodology developed for the First Biennial Report, working under the supervision of the Coordinating Lead Author and Senior Advisor to the Report and in close coordination with the CDRI Project Team.

Specifically, the main objectives of this assignment are:

1. To define areas of improvement of the GIRI methodology, and, specifically, the GIRI composite index through engagement with a Technical Advisory Group to be constituted.
2. To provide CDRI support for engagement with current and prospective Coalition members in the disaggregation and processing of data prepared for the first Biennial Report, and to support the engagements with government counterparts to help them understand the GIRI methodology and potential uses at the national and sub-national levels.
3. To prepare a series of analytical reports based on the results of the first biennial report and GIRI modelling runs to support the advocacy activities and enhance the library and knowledge activities of CDRI.

4. Develop a new "pilot" exposure model using the JRC¹ data and the model developed for the Internal Displacement Monitoring Centre (IDMC).
5. To engage with the CDRI consultants working on the Second Biennial Report in the areas of finance, institutions and governance, and infrastructure resilience global survey, to provide advice on linkages between their work and the GIRI composite index and other risk modelling perspectives.

4. Scope of work

The organization will have the following responsibilities while working under the guidance of the Coordinating Lead Author and Senior Advisor on the second edition of the Biennial Report and in close coordination with the CDRI Project Team:

1. In consultation with the CDRI Project Team, mobilize a Technical Advisory Group that will review and provide advice on future areas of improvement for the GIRI methodology, specifically the GIRI composite index. The organization will compile the advice given, prepare a summary report, and, in consultation with CDRI, identify priority future areas for enhancement of the model and index.
2. Undertake a series of disaggregation computations of the data and results from the GIRI data platform for up to 8 countries to be identified by CDRI (initially expected to be two large countries such as India and Brazil, three medium-sized countries, and two small size countries), prepare brief analytical reports, and support CDRI in the engagement with authorities from these countries to help them understand the GIRI methodology, explore uses of the data and results provided, and identify possible areas of future support.
3. Prepare a series of analytical reports with the specific scope agreed with CDRI. These policy notes will be based on the data and results from the first Biennial Report and the GIRI data platform by providing specific areas of analysis or combinations with other existing and easily accessible data. The topics for these analytical reports are:
 - a) Renewable energy generation infrastructure and related transmission lines
 - b) Initial analysis of Loss and Damage in infrastructure
 - c) Analysis of losses at the sub-national level (particularly in poor provinces of larger countries) and for small countries to understand the relative importance of such losses to the local economy
 - d) Analysis of losses for three groups of countries to be defined by CDRI (e.g., small island developing states)
 - e) The organization should plan for two additional analytical reports to be prepared on topics of similar scope to the ones listed above

The organization will deliver the above individual reports, including annotated outline, draft, and final versions. CDRI will be responsible for the copyediting, design, and printing of the reports. All data (including but not limited to base data used, simulation results, and final map layers) should be shared with CDRI in an open data format along with appropriate metadata and technical documents detailing the approach and methodology.

4. Develop a new "pilot" exposure model using the new JRC data and the model developed for IDMC, test it for a significant set of countries, and validate the model for potential use in future iterations.
5. Provide inputs and advice on risk assessment and the GIRI composite index to the CDRI consultants working on the financial, institutions and governance, and infrastructure

¹ Joint Research Centre of the European Commission

resilience global survey background reports and chapters for the Second Biennial Report. The organization will participate in periodic meetings and provide brief input as requested by CDRI.

6. Participate in dissemination and outreach activities for the deliverables listed above.

5. Expected Deliverables

1. An inception report with milestones and delivery program
2. Annotated outline of the various reports
3. Proposed participants in the technical review of the GIRI approach and composite index
4. Draft and final versions of the deliverables listed

6. Period of engagement

The Organization is expected to complete the assignment within 6 months, with regular progress updates provided to the project stakeholders. To that end, a detailed work plan and schedule of deliverables must be submitted as part of the Technical Proposal.

7. Submission

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

1. **Technical Proposal (Open PDF file)**

Interested organizations should submit a technical proposal that includes the following:

- i. **Introduction:** Provide an overview of the organization's understanding of the assignment and the importance of enhancing infrastructure resilience through the GIRI Index.
- ii. **Methodology:** Outline the approach and methodologies proposed for each task.
- iii. **Work Plan:** Detail a comprehensive work plan that includes timelines, milestones, and deliverables for each task.
- iv. **Team Composition:** Describe the team structure and roles, highlighting relevant expertise in infrastructure resilience, risk assessment, climate change adaptation, and data analysis.
- v. **Experience and References:** Present examples of previous work relevant to infrastructure resilience assessments, probabilistic modelling, peer reviews, and climate change impact analyses.

2. **Financial Proposal (Password-Protected PDF File)**

Provide a detailed budget proposal that aligns with the scope of work and includes an itemized breakdown of costs for personnel, travel (if applicable), software/tools, and other expenses.

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

8. Evaluation

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

S. N.	Criteria	Screening	Weightage
A	Bidder's qualification, capacity, and relevant experience		40
i.	Expertise and experience in developing multi-hazard probabilistic risk models and resilience indices at the regional or global level.	Minimum 15 years of experience.	15
ii.	Completed/ongoing Contracts in Multi-hazard Risk Modelling including Exposure Modelling.	<i>A minimum of one (1) contract of at least USD 200,000 value, completed in the last 7 years</i>	10
iii.	Completed/ongoing Contracts in generating financial risk and resilience metrics	A minimum of one (1) contract of at least USD 50,000 value, completed in the last 7 years	5
iv.	Completed/ongoing Contracts involving Infrastructure systems	A minimum of one (1) contract of at least USD 50,000 value, completed in the last 7 years	5
v.	Completed/ongoing Contracts involving the development of indices	A minimum of one (1) contract of at least USD 50,000 value, completed in the last 7 years	5
B	Proposed Work Plan for each component including allocation of responsibilities		30
i.	Relevance and detailing of the Methodology and Work Plan	Excellent: 15 Good: 10 Satisfactory: 7 Poor:5 Very poor: 3	15
ii.	Work allocation between Proposed Teams based on their respective experiences and capacities	Excellent: 15 Good: 10 Satisfactory: 7 Poor:5 Very poor: 3	15
C	Qualification and experience of Proposed key personnel as specified in the Terms of Reference		30

S. N.	Criteria	Screening	Weightage
i.	Risk Modelling Expert	Minimum 10 years of experience	10
ii.	GIS and Exposed Assets Expert		5
iii.	Flood and Hydrological Drought Expert		5
iv.	Tropical Cyclone Expert		5
v.	Landslide Hazard Expert		5
	Total		100

Rating Multiplier for Methodology, Approach	
Level of Responsiveness	Rating
Irrelevant	0%
Poor	25%
Satisfactory	50%
Good	75%
Excellent	100%

iii. The organizations scoring more than 70% in the technical evaluation shall be considered for financial evaluation. 75% weightage will be awarded for the Technical Proposal and 25% weightage will be awarded for the Financial Proposal. Technical Bid will be assigned a technical score (Ts) out of a maximum of 100 points.

iv. The Organization'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,

F_n = Normalized commercial score for the Organization under consideration

F_b = Absolute financial quote for the Organization under consideration

F_{min} = Minimum absolute financial quote Formula for final evaluation:

Composite Score (S) = $T_s * 0.75 + F_n * 0.25$

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

9. Terms of payment

Payment will be made on a quarterly basis upon necessary verification and approvals of deliverables by CDRI.

10. Reporting Structure

The Organization will report to the Director (RKM&CD) and Lead Specialist–Biennial Report providing regular updates on progress, challenges, and key decisions.

11. Other Terms & Conditions

- i. The proposals should be valid for 90 days after the final submission date.
- 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.
- iv. Please note that the organization must clearly disclose the contractual and payment terms in its proposal.

The organizations are requested to submit their proposal through email to tender.projects@cdri.world by 23:59 hrs (IST) on 23 September 2024. Responses received after the stipulated time or not in accordance will be summarily rejected.

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