

## Request for Proposal

Date: 26 December 2024

### Hiring an organization to develop and conduct a Pilot Global Business Survey on Infrastructure Resilience Benefits

#### 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 that aims to promote the resilience of new and existing infrastructure systems to climate and disaster risks in support of sustainable development. The vision, mission, goal, and objectives of CDRI are explicitly linked to the post-2015 development agendas. CDRI promotes its Disaster Resilient Infrastructure (DRI) mandate through knowledge exchange and bolstering technical capacities among member countries and partners through the following key Strategic Priorities:

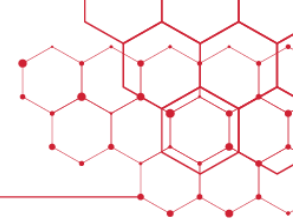
- Advocacy and Partnerships
- Research, Knowledge Management, and Capacity Building
- Program Support and Technical Assistance

In line with the Strategic Priorities around Research, Knowledge Management, and Capacity Building, CDRI launched its inaugural Biennial Report, titled "Global Infrastructure Resilience: Capturing the Resilience Dividend" in October 2023. The Biennial Report serves as CDRI's principal vehicle for engaging and focusing the attention of global leaders, policymakers, practitioners, and researchers in addressing the critical and multifaceted challenges posed by disaster and climate-resilient infrastructure.

#### 2. The First CDRI Report on Global Infrastructure Resilience

The first edition of the Biennial Report is a significant milestone in CDRI's ongoing effort to advance disaster and climate-resilient infrastructure globally. The Report addresses the unique challenges LMICs face. It outlines pathways for global resilience improvement, leveraging data from the first-ever fully probabilistic global risk assessment of infrastructure assets, known as the Global Infrastructure Risk Model & Resilience Index (GIRI). GIRI assesses the risk and resilience across nine major critical infrastructure assets covering seven hazards at a global level to arrive at financial metrics to prompt countries to formulate policies, plans, and strategies that incorporate resilience. Further, through rigorous data, evidence, and outputs, the Report underscores the idea of the "resilience dividend" that can support countries in transforming the perception of resilience from a cost to an opportunity, fostering financial incentives for resilience investments that benefit governments, investors, and communities alike.

The First Report outlines four critical dimensions for enhancing infrastructure resilience and capturing the resilience dividend, starting with improving infrastructure governance that involves enhanced planning, design standards, codes, regulations, compliance with Operations and Maintenance, and sharing of best practices to ensure the reliability and quality of infrastructure.



The second dimension is investing in resilience by tapping private institutional capital (US\$ 106 trillion worldwide) and innovative financial mechanisms. The Report also highlights the need for knowledge sharing and capacity building on infrastructure resilience. Lastly, it explores the innovative use of nature-based infrastructure solutions to integrate natural systems in infrastructure design and operation strategies. The Biennial Report and its Executive Summary are now available for download at [cdri.world/gir](https://cdri.world/gir). The GIRI data platform, that facilitates visualization, interpretation, and analysis of data from the GIRI model, is accessible at [cdri.world/giri](https://cdri.world/giri).

### 3. Biennial Report on Global Infrastructure Resilience: Edition 2

CDRI plans to publish the second edition of the Biennial Report by October 2025 (hereafter referred to as “the Report”). The Report will build on the comprehensive risk assessment methodology with global applicability developed for the first report. The Report aims to answer some of the questions raised during the preparation and dissemination of the first Report, expanding its remit and strengthening the connections between the risk analysis and the financial, institutional, and technological dimensions of resilient infrastructure.

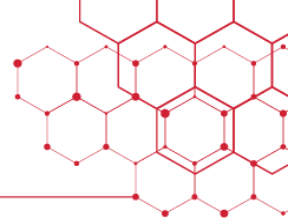
The Report is organized along two main pillars. The first pillar is based on a series of modeling and analytical pieces that deepen, downscale, and project the results of the first Biennial Report into the future. The second pillar advances the work of the first Biennial Report from the “what is the resilience dividend” to the “how to capture the resilience dividend.”

**Pillar 1: Deepening, Downscaling, Projecting:** The Report expands the work of the first report along three lines of work:

- ***Deepening*** the understanding of resilient infrastructure by (i) incorporating additional risks and updating the model with new databases; (ii) undertaking specific assessments of economic and poverty impacts due to infrastructure services failures caused by disasters; and (iii) completing global surveys to understand better the underlying factors of insufficient resilience and the impacts on businesses and the economy.
- ***Downscaling*** the global analysis undertaken for the first Biennial Report to the country and sub-national level to provide higher-quality risk assessments using better data and understanding of local conditions through national partners. At the same time, these analyses will review options, costs, and benefits of resilience and adaptation measures to reduce the impacts of disasters on infrastructure assets, systems, and services.
- ***Projecting*** the modeling exercise to incorporate future expected trends, including investment trajectories to achieve the infrastructure-related Sustainable Development Goals (SDG) targets, the projected growth of urban centers, and related areas of analysis

#### **Pillar 2: How to Capture the Resilience Dividend**

The first Biennial Report provided a robust analysis of the magnitude of the “resilience dividend” at the global and national levels. The first report also took the first steps in analyzing ways in which more resilient and climate-adapted infrastructure can be built and maintained, including



nature-based solutions and financial mechanisms. The Second Biennial Report will be built on the foundation of the first report. It intends to move from the question of “What is the magnitude of the potential resilience dividend?” to “How can this resilience dividend be captured?” Under this Pillar, the Report will review: (i) financial instruments for resilience and adaptation; (ii) institutional, governance, and capacity frameworks; and (iii) frontier tools, including new technologies and nature-based solutions, among others. Thus, the Biennial Report will be prepared with six workstreams:

- GIRI modeling
- Finance
- Institutions and Governance
- New technologies
- Nature-based solutions
- Surveys

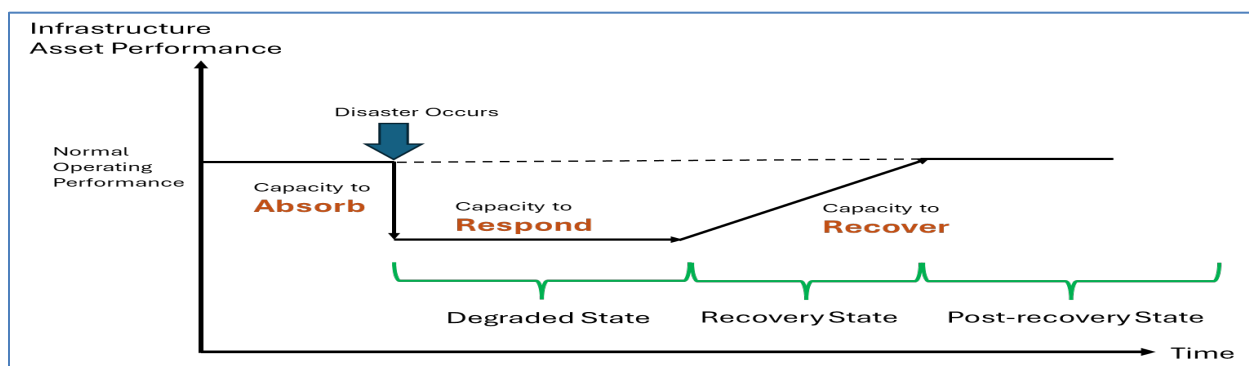
These workstreams will develop their outputs in a coordinated manner, and each will provide a background report and a chapter for the integrated Biennial Report.

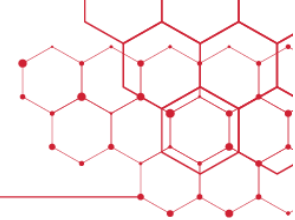
#### 4. Common Analytical Framework Across Biennial Report Chapters

To ensure consistency across the background technical reports and the Biennial Report chapters derived from them, a common analytical framework has been developed, building on the approach used in the first Biennial Report.

The operational disturbance of infrastructure assets due to disasters and the subsequent recovery can be described in three states or phases as shown in Figure 1: a degraded state, a recovery state, and a post-recovery state. The resilience of an infrastructure asset is not only related to its capacity to absorb shocks caused by disasters, but also the capacity of institutions to respond to the disaster and to recover from it. These three capacities: (i) to absorb; (ii) to respond to; and (iii) to recover from a disaster will be core to all chapters in the Biennial Report.

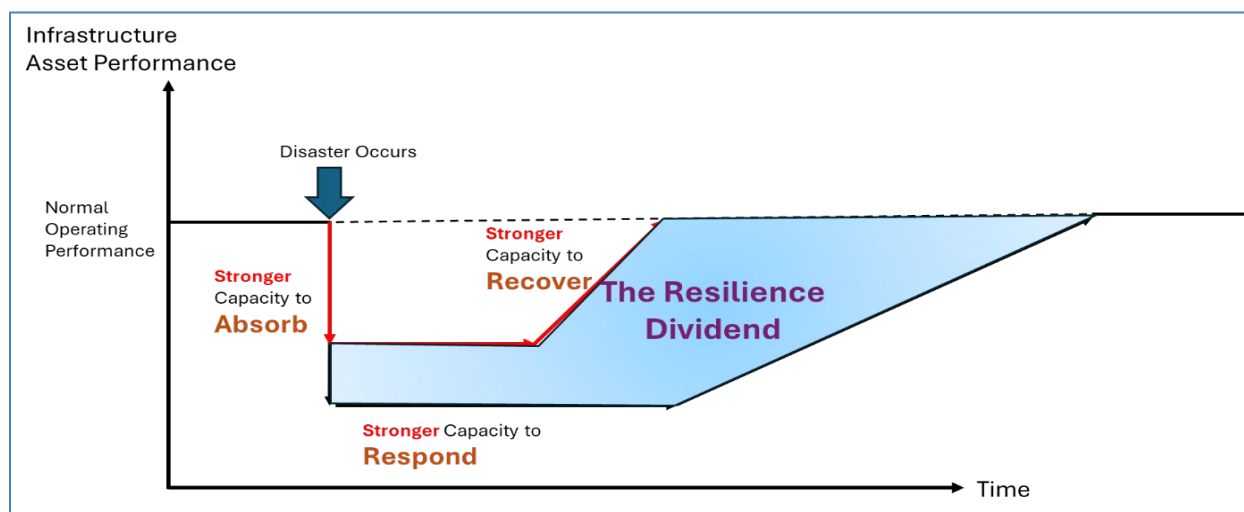
**Figure 1 – Three Core Capacities of Infrastructure Resilience**





As countries strengthen their capacities to absorb, respond, and recover from disasters, they are able to capture the “resilience dividend,” shown in the shaded area of Figure 2.

**Figure 2 – The Resilience Dividend**



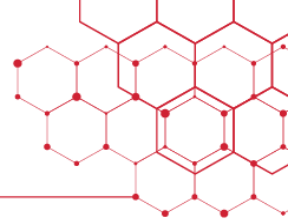
The Biennial Report will frame the analysis of the finance, institutional/governance/capacity, technology, and nature-based solutions chapters in ways that directly help strengthen the capacities to absorb, respond to, and recover from disasters.

## 5. Global Infrastructure Resilience Survey (GIRS)

The first edition of the Biennial Report included an initial pilot survey of infrastructure resilience to understand intangible infrastructure governance and management aspects. Through analyzing infrastructure management components: policy, accountability and enforcement, financial capacity, institutional stability, disaster response, and maintenance and standards, the pilot survey explored ways to capture and reflect the impediments that specialists and stakeholders may face in the management process.

While the first version of the survey provided valuable insights, it underscored the need for a second iteration to enrich the understanding of global infrastructure resilience further. This second survey will involve a wide range of infrastructure experts, including engineers, architects, economists, and planners, ensuring a comprehensive understanding of infrastructure challenges and opportunities in a larger number of countries.

The survey will focus on professionals working on downstream aspects of infrastructure (construction, maintenance, operation, repairs, use) who are thoroughly familiar with how institutions, policies, and governance operate in the field. The insights will be collected through a combination of an online survey and a limited number of focus interviews in each country.



## 6. Pilot Global Business Survey on Infrastructure Resilience Benefits

In addition to the infrastructure experts' survey, CDRI intends to include in future Biennial Reports the results of surveys focused on those directly affected by infrastructure failures caused by disasters. While many stakeholders in society are affected by these infrastructure failures – including households, communities, local governments, and businesses, - the Second Biennial Report's user survey will focus on this first cycle, on **businesses** to understand the operational impacts of disasters and associated infrastructure service interruptions.

While there have been isolated, one-off surveys of businesses affected by climate change (see Annexure 1), there has not been a systematic approach to define a methodology that becomes the global standard, nor a process that gradually achieves global coverage with a regular periodicity to see progress on resilient infrastructure measures.

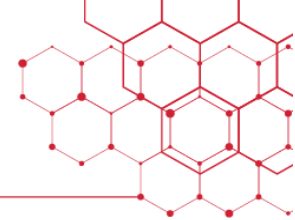
The Second Biennial Report intends to start this process by developing a survey methodology (with inputs from an advisory group), testing it in a diverse group of countries (not a global coverage in this first round), analyzing the results, and proposing ways to improve the methodology for a larger survey. **The target number of countries for this initial Pilot Survey is 25.** The survey should be designed for updating, replication, and expansion, as more resources become available.

The Pilot Global Business Survey on Infrastructure Resilience Benefits would aim to gather views from large businesses and SMEs on:

- Level of understanding of risks of infrastructure services failure due to disasters (e.g., road damages or power cuts) on their businesses
- Level of understanding of impacts on production, operations, distribution, sales, and customers due to infrastructure service failures due to disasters, and the benefits that resilient infrastructure services would provide to businesses
- Level of understanding of disaster risks on businesses due to insufficient infrastructure (e.g., floods due to insufficient flood management infrastructure or heatwaves due to insufficient power availability)
- Coping mechanisms that individual businesses undertake to deal with these risks (e.g., power generators, alternate warehouses, etc.)
- Availability and understanding of information to take mitigation actions (structural, operational, insurance)
- Availability of finance for businesses to implement their own resilience measures.
- Perceptions about the loss of firms' competitiveness (global or local) due to insufficient resilience of infrastructure services to disasters

The above list is partial and would need to be developed as part of the survey design

As with other workstreams of the Biennial Report, a small Technical Advisory Group with expertise on business resilience, business environment, surveys, and other topics related to this task will be constituted to provide advice to the organization and CDRI during the implementation of this work.



## 7. Objectives of the assignment

CDRI intends to use the survey results to support the Biennial Report and, more generally, to:

- Highlight the impacts of insufficient resilience of infrastructure services on individual businesses and the economy
- Understand the differentiated impacts of infrastructure service interruptions due to disasters between large and small enterprises
- Engage with the business community to demand further investments in resilient infrastructure and design combined resilience strategies between the public and private sectors
- Encourage countries to deepen their understanding of the linkages between infrastructure resilience and business competitiveness at the national and sub-national levels by using the global standard survey methodology in their jurisdictions

The pilot phase of the Global Business Survey on Resilient Infrastructure Services is expected to be completed in time for the publication of the Second Biennial Report in October 2025. As more resources become available, it is expected that the Pilot Survey will be extended to more countries.

## 8. Scope of Work of the Pilot Global Business Survey on Infrastructure Resilience Benefits

In consultation with CDRI, the organization shall employ a mix of qualitative and quantitative research methods, including:

### 1. Questionnaire Development and Review:

- Design a questionnaire covering the necessary topics to achieve the survey objectives.

### 2. Cognitive Testing:

- Conduct small-scale pilot testing to ensure questions are clear and effective.
- Refine questions based on feedback to eliminate ambiguities.

### 3. Integration of Technical Advisory Group Feedback:

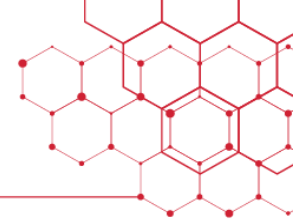
- Incorporate expert feedback from the Technical Advisory Group to be constituted to support this work.

### 4. Targeted Outreach:

- Ensure a diverse and representative sample of businesses among the organization's network located across different regions and countries' income levels, developed and developing, to participate in the pilot survey and the capability to expand the sample if needed.

### 5. Data Analysis:

- Implement rigorous quality assurance processes to ensure data accuracy and reliability.
- Conduct relevant analysis across various dimensions of the surveyed sample of businesses.



## 9. Expected Deliverables

### 1. Inception Report:

- Inception report describing approach, milestones, and timetable, with specific focus on target country selection and delivery approach for survey and interviews.

### 2. Survey and Interview Design Report:

- Initial report outlining the design and methodology for the survey and interview; implementation approach; data quality assurance; and proposed data analysis approach.
- Proposed survey questionnaire.

### 3. Revised Survey and Interview Questionnaires:

- Based on the pilot testing, revised questionnaires.

### 4. Comprehensive Survey Report:

- Final report including data analysis, key findings, and insights from the survey.
- Summary chapter for the Second Biennial Report presenting the main findings from the survey report.
- Raw data.
- Engagement with the CDRI team and organizations working on the GIRI website for display of data, technical text for explanatory notes, and overall design advice.

### 5. Dissemination:

- A dissemination plan in conformance to the approach proposed by the proponent.

In addition to the above payment-linked deliverables, the Organization will be required to prepare presentations for reporting meetings to CDRI and the Technical Advisory Group.

## 10. Timeline for delivery

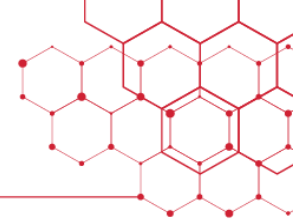
The Organization is expected to complete the Pilot Global Business Survey on Infrastructure Resilience Benefits survey within 6 months, with regular progress updates provided to the project stakeholders. To that end, a detailed work plan and schedule of deliverables must be submitted as part of the Technical Proposal.

## 11. Reporting

The Organization will work in close coordination with the Coordinating Lead Author for the Report and report to the Director (RKM&CD) and Lead Specialist – Biennial Report providing regular updates on progress, challenges, and key decisions.

## 12. Budget

The Organization shall provide a detailed budget proposal outlining the costs of conducting the survey, including personnel, technology, and other resources.



### 13. Qualification criteria:

1. **Expertise in Resilient Infrastructure:** The proposal must demonstrate the Organization’s proven experience delivering similar global assignments. The team Lead should have over 20 years of experience and expertise in climate change, resilience, infrastructure, and the business environment.
2. **Network of business partners:** The Organization must show its current network of business partners who are available to participate in the survey.
3. **Innovative Survey Methodologies:** Ability to develop innovative survey methodologies and approaches, leveraging cutting-edge techniques to capture nuanced insights into infrastructure resilience challenges and opportunities for businesses.
4. **Efficient Resource Management:** Robust planning and allocation of resources, including personnel, technology, and budget, to maximize project efficiency and deliver high-quality results within specified timelines.
5. **Strong Analytical Skills and Reporting:** Strong analytical skills and proficiency in data analysis tools and techniques, enabling the extraction of actionable insights from survey data and the preparation of clear and compelling reports.

### 14. Submission

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

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

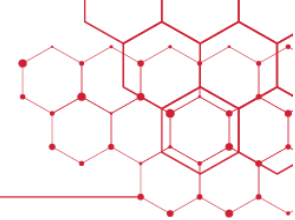
**Note: The Financial Proposal PDF should be password-protected. The password for FINANCIAL PROPOSAL MUST NOT BE SHARED ALONG WITH THE PROPOSAL. The password for the financial proposal will be requested separately.**

### 15. Evaluation

1. The Organization 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.	Technical Evaluation Criteria	Description	Maximum Marks
1	<b>Methodology</b>	The proposed methodology for conducting the survey, including data collection, analysis, reporting techniques, and approach to reach a large number of businesses or similar stakeholders in developed and developing countries. The methodology should also include the proposed dissemination approach.	25
2	<b>Expertise</b>	The Organization's/ proposed Team’s expertise and experience in conducting similar surveys and projects.	25





3	<b>Innovation</b>	The level of innovation and creativity demonstrated in the proposed approach to survey design and implementation.	10
4	<b>Resource Allocation</b>	The adequacy and efficiency of proposed resource allocation, including personnel, technology, and budget planning.	10
5	<b>Stakeholder Engagement</b>	Demonstrated wide network of working relations with businesses, small and large, in all key regions and income levels (developed and developing).	30
<b>Maximum Marks</b>			<b>100</b>

<b>Rating Multiplier</b>	
<b>Level of Responsiveness</b>	<b>Rating</b>
Irrelevant	0%
Poor	25%
Satisfactory	50%
Good	75%
Very Good	90%
Excellent	100%

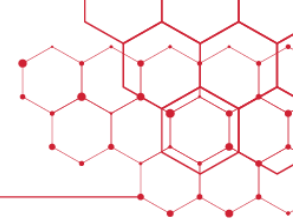
- The organizations scoring more than 70% in the technical evaluation shall be considered for financial evaluation. 75% weightage will be awarded for the Technical Proposal and 25% weightage will be awarded for the Financial Proposal. Technical Bid will be assigned a technical score (Ts) out of a maximum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

$$\text{Composite Score (S)} = T_s * 0.75 + F_n * 0.25$$

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

## 16. Terms of payment

This will be a lumpsum contract following deliverable-based payment on the following terms. Payments will be made upon approval of the submissions/deliverables by competent authorities at CDRI.



S.N.	Deliverables	Payment Terms (% of Contract Price)
1	Survey and Interview Design Report.	20%
2	Revised survey and interview questionnaires based on pilot testing and feedback from the Technical Advisory Group	15%
3	Draft Survey report	30%
4	Final Survey Report, Summary Chapter for the Second Biennial Report, raw data provision for GIRI website	20%
5	Dissemination efforts completed	15%

### 17. Standards of quality

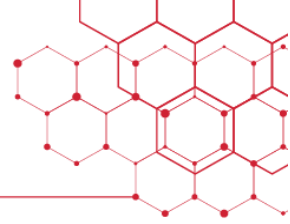
Information and data created according to the Scope of Work should follow internationally accepted standards and practices.

### 18. 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](mailto:tender.projects@cdri.world) by 23:59 hrs (IST), 17 January 2025. 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.



### **Annexure 1 – Surveys on Business and Climate Change**

- The LSE Climate Risk Business Survey 2020. Grantham Research Institute on Climate Change and the Environment, London School of Economics (2021)
- Business Survey on Climate-Related Risk. Federal Reserve Bank of San Francisco (2022)
- Firms and Climate Change in Low- and Middle-Income Countries. Policy Research Working Paper 10644. World Bank (2023)
- Risky Business: Companies' Progress On Adapting To Climate Change. S&P Global Ratings (2024)
- Managing Flood Risks – Leveraging Finance for Business Resilience in Malaysia. World Bank and Bank Negara Malaysia (2024)
- Thirsty Business - A Global Analysis of Extreme Weather Shocks on Firms. Policy Research Working Paper 10923. World Bank (2024)

