

Annual Report

2023 - 2024





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2023 - 2024

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What we need is a global people's movement to bring about behavioural change...therefore India is here today to present a practical approach and roadmap. In order to make our infrastructure resilient in the face of disasters, India is launching a Coalition for Disaster Resilient Infrastructure. I invite all member states to join this Coalition. ””

Hon. Prime Minister of India, Shri Narendra Modi
Launching the Coalition for Disaster Resilient
Infrastructure at the 2019 UN Climate Action Summit

From the Desk of the **Director General**



H.E. Amit Prothi

Director General, CDRI

I am honoured to present this year's annual report, my second as Director General. It has been a busy and successful year, but two events stand out as we continue to increase the international presence and visibility of the Coalition:

- The CDRI Secretariat became a formal International Organisation in India with the ratification of our Headquarters Agreement (HQA) by the Government of India on 28 June 2023.
 - CDRI was invited as an international organization to participate in India's 'One Earth, One Family, One Future' G20 Presidency. I had the opportunity to make the case for Disaster Resilient Infrastructure directly to the world leaders at the Summit in September, and CDRI was recognized in the New Delhi Leaders' Declaration.
-

I am proud that we have now begun to see real impact from CDRI's work in line with the strategic plan curated with and approved by our members.

We launched the world's first publicly available probabilistic risk model for infrastructure assets across nine critical sectors and covering six major hazards. The model was adopted by UNESCAP to support its 53 members to make risk informed decisions, and by the University of Oxford's Environmental Change Institute to make risk evaluations for 12 countries.

Our work on the power sector in India, within our Critical Infrastructure Sector Programme has seen The Ministry of Power, Government of India implemented CDRI's recommendation for creating a fund of 1.5% of each power utility's annual revenue and The Ministry of New and Renewable Energy and the Ministry of Power, Government of India, adopt CDRI's advisory on cyclone preparedness.

Having operationalised CDRI's multi-party trust fund, IRAF, our first grants for Technical Assistance were made to 11 projects across 13 SIDS under our Infrastructure for Resilient Island States programme. Projects are now being implemented that will support early warning systems, data, transport, and in health, coastal, water and education infrastructure.

At COP28 in Dubai, we launched an urban infrastructure resilience programme strategy. This followed extensive consultations and will enhance urban liveability by promoting resilient infrastructure planning and implementing data-driven decision-making processes to manage climate related risks such as extreme heat, flooding and water scarcity.

I am confident that the next year will be equally productive, and with the support of all our members we will go further and faster towards achieving our shared vision of a world with resilient infrastructure that enables sustainable development and ensures nobody is left behind.



01

**Building the Coalition
and advocating disaster
resilient infrastructure**



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

- Engaged members and partners work in selected global policy processes and platforms to mainstream DRI action.
- The Coalition advocates for and supports the mobilization of financial resources for DRI.
- Members and partners champion the Coalition's DRI initiatives on global and regional platforms.

Highlights of the year

1

Supporting India's G20 Presidency which culminated in the New Delhi Leaders' Declaration which took note of the vital work being led by CDRI.

2

Convening Heads of Government, Ministers, senior dignitaries, and over 100 global experts and thought leaders at ICDRI 2023.

3

Signing CDRI's first financing agreements, with the Government of the United Kingdom and the European Union for a total of US\$ 14,192,697.

4

Organizing CDRI's first regional workshop in Washington DC, USA.

“

Disaster resilience has come to the centre stage of the global and national development discourse. In our search for solutions, we must focus on affordability, scalability and sustainability for emerging economies.

Dr. P.K. Mishra

Principal Secretary to the Prime Minister, Government of India

”

Membership Expansion

Result

Eight countries joined the Coalition between April 2023 - March 2024:



Antigua and Barbuda



Cuba



Guatemala



Guyana



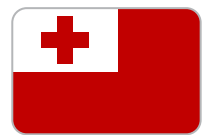
Honduras



Nauru



Samoa



Tonga

Coalition Membership



40
Countries

7
Organizations



Support to India's G20 Presidency

■ Goal

To support the Indian G20 Presidency, and focus attention on the criticality of DRI.

■ Action

India held the rotating presidency of the G20 in 2024, with the theme 'One Earth, One Family, One Future'. CDRI was invited to participate as an International Organization along with select countries and organizations. CDRI was one of the knowledge partners for the inaugural Working Group on Disaster Risk Reduction, and contributed to the Presidency's report on *Principles on Financing Cities of Tomorrow: Inclusive, Resilient and Sustainable*.

27 interventions were made by CDRI, including at the Sherpa, Finance Minister and Central Bank Governors meeting, and four Working Group meetings. The Director General addressed world leaders at the New Delhi Summit.

CDRI contributed to the development of G20 DRRWG Roadmap and Action Plan (2023-2025), compiled an online compendium of good practices on disaster resilience of new and existing infrastructure, released a White Paper on *Pathways for Global Infrastructure Resilience*, and organized five side events to highlight the importance of equitable and informed investments in infrastructure, including impacts on gender, risk assessment tools, data and financing risks.



G20 Disaster Risk Reduction Working Group, Gujarat, India



G20 Disaster Risk Reduction Working Group, Chennai, India

Result

The New Delhi Leaders' Declaration took note of "the Coalition for Disaster Resilient Infrastructure (CDRI)" as a platform for "collaboration and sharing." The Outcome Document of the inaugural G20 Disaster Risk Reduction Working Group emphasized, "...the importance of collaboration and sharing of knowledge and expertise on infrastructure resilience between governments, international organizations, multilateral development banks, international financial institutions, infrastructure investors, owners, designers, builders, service providers, insurance companies, private sector, and civil society organizations," and noted "the Coalition for Disaster Resilient Infrastructure (CDRI) ... in furtherance of such collaboration and knowledge sharing."

CDRI secured over 90 stories for the Disaster Risk Reduction Working Group, of which 35 highlighted CDRI's contribution to the Working Group's agenda. This included publications such as *The Hindu*, *New Indian Express*, *DD News*, *AIR*, *India Today*, *The Week*, *Deccan Herald*.



Impact

CDRI's support to the G20 DRRWG Roadmap and Action Plan (2023-2025) will shape and influence discussions of the future Presidencies and ensure that DRI remains an area of focus and action for the G20.



International Conference on Disaster Resilient Infrastructure

■ Goal

To create a platform for decision makers and influencers to meet, explore shared challenges, forge new partnerships, and showcase global best practices.

■ Action

The fifth ICDRI was organized in New Delhi on 4-5 April 2023. The theme was *Delivering Resilient and Inclusive Infrastructure: Pathways for Risk-Informed Systems, Practices, and Investments*.

The two-day event included 17 sessions on policy, governance, technology and finance across sectors. Storytelling sessions in the PechaKucha format showcased DRI solutions and good practices. The conference was also used to gain input from Coalition representatives and global experts to refine and further develop CDRI initiatives and programmes through interactive working sessions.

Participants were offered a flavour of cutting-edge technology solutions including Virtual Reality, Artificial Intelligence and Drones, and how they can be used to plan, prepare and deliver climate and disaster resilient infrastructure.

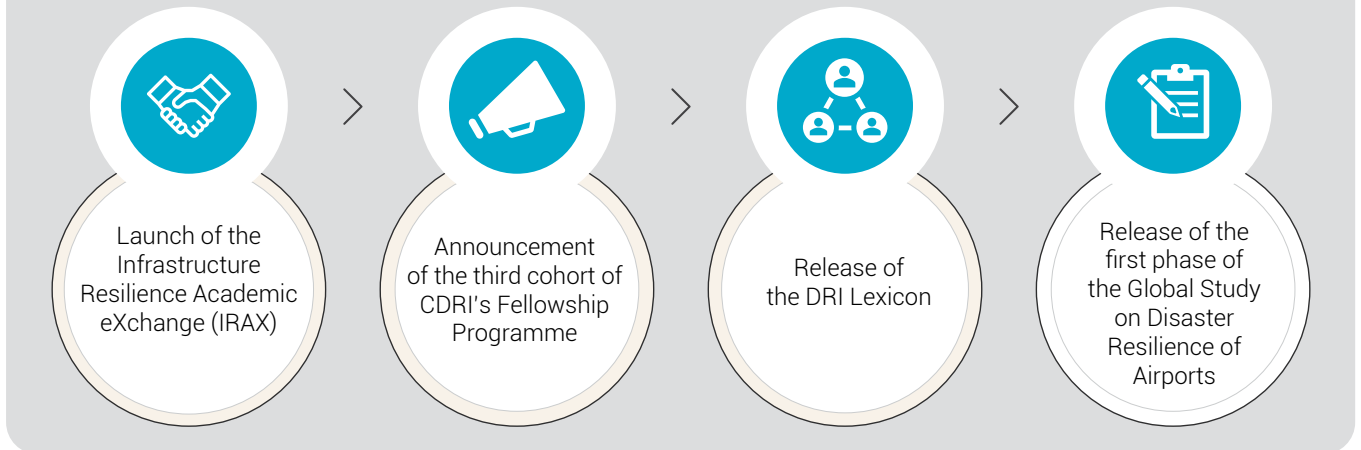


PM Modi Calls For Integrated Response To Disasters

Result

350 participants attended in-person, with a further 2,400 from 158 countries registered for online attendance. Heads of Governments from India and Bangladesh, Ministers from the Netherlands, India, Samoa and Fiji, senior dignitaries from CDRI member countries and partner organizations, and over 100 global experts and thought leaders came together to envision, innovate, and share knowledge on climate and disaster resilient future.

Major announcements at ICDRI 2023 were:



The conference's inaugural session was broadcast live on Indian TV including *NDTV*, *CNN News18*, *Times Now*, *Republic* and *DD News*. There were 350 mentions in top-tier publications across online, print, and broadcast media such as *Times of India*, *Business Standard*, *Hindustan Times*, *Indian Express*, *Business Today*, *The Economic Times*, *Print*, and *Mint*. Broader press coverage included a story on the release of CDRI's *Global Study on Disaster Resilience of Airports* by *Outlook Planet*, *Financial Express*, *ET Infra* and *The Earth News*.



DRI Lexicon Launch, ICDRI 2023, New Delhi, India

Impact

The Conference laid the foundation for the Coalition's focus on sourcing and sharing of global good practices on disaster resilient infrastructure. Twenty-eight case studies demonstrating solutions on governance, data, planning and finance from across the globe were showcased. This was followed by CDRI being invited as one of the knowledge partners for the G20 DRR Working Group and developing an online compendium of good practices on DRI across the G20.

Discussions at ICDRI influenced the development of the CDRI Urban Resilience Programme, which was launched at the UNFCCC COP 28 in Dubai, in December 2023.

“ India has been working on strengthening end-to-end early warning systems for all hydro-meteorological hazards. India would now like to maximise the full protection of early warning systems for not just reducing the loss of lives but also livelihoods and national development themes. ”

Shri Bhupender Yadav

Hon. Minister for Environment, Forest and Climate Change,
Government of India

“ Jamaica is greatly appreciative of the efforts by CDRI to support member countries building disaster and climate resilient infrastructure through technical support, capacity development, research & knowledge management and advocacy & partnerships. ”

H.E. Jason Keats Hall

High Commissioner, Jamaica

International Conference on Disaster Resilient Infrastructure for the Americas

■ Goal

To organize CDRI's first regional conference, deepen CDRI's visibility, and boost coalition membership across the Americas.

■ Action

'ICDRI Americas' was organized in partnership with the US Government on 30 October 2023 in Washington D.C. The theme was 'Partnering for People-centred and Future-ready Disaster Resilient Infrastructure.'

CDRI announced the first 11 projects across 13 SIDS to receive funding through the Infrastructure for Resilient Island States programme.

Additionally, CDRI's strategic initiatives showcased during the event included the Biennial Report on *Global Infrastructure Resilience: Capturing the Resilience Dividend*, Global Infrastructure Resilience Index, Infrastructure Resilience Academic eXchange and Infrastructure for Resilient Island States.



ICDRI Americas, Washington, D.C., USA



ICDRI Americas, Washington, D.C., USA

The CDRI Secretariat took advantage of the event to engage in high level discussions on potential partnership opportunities with the World Bank, the International Finance Corporation (IFC), Inter-American Development Bank (IDB), and America’s leading academic and research institutions, and think tanks.

➔ Result

40 regional and global experts were convened for discussions on capacity building, technical assistance, knowledge transfer and investments for long term resilience of infrastructure. Over 100 delegates representing national governments, think tanks, academia and research, financial institutions, and the private sector from 13 countries participated.

The conference was mentioned by 13 leading media outlets including as *Menafin*, *Kalkine Media*, *Financial Express*, *Business this Week*, *Biz News*, *Content Media* among others.

Impact

Demand was generated for CDRI regional convenings and workshops including in the Caribbean and the Pacific. Discussions with organizations such as Natural Resources Defense Council and Climate Resilience for All led to the announcement of a Community of Practice on Extreme Heat at COP28 later in the year.



The United States is proud to participate in ICDRI Americas to accelerate investments in people-centric and disaster resilient infrastructure. The conference will expand CDRI's engagement in the region, bringing together experts from the government, private sector, and academia to forge strategic partnerships and enable peer-to-peer exchange, with exponential impact. ”

Veena Reddy
USAID/India Mission Director



Disaster resilient infrastructure is one of the best ways to reduce the loss of lives and economic losses. Engineers, urban planners, universities, and government leaders need to come together to share and institutionalize measures like building codes, resilient construction techniques and regular infrastructure maintenance. Events like ICDRI are critical for exchanging knowledge. ”

Kit Miyamoto
Global CEO, Miyamoto International

Engagement with UNFCCC COP28

Goal

To position DRI with the broader UNFCCC discussions on adaptation, and to showcase CDRI initiatives and priorities.

Action

CDRI participated as an officially accredited UNFCCC Observer Inter-governmental Organization for the first time. In his statement at the high-level segment for Observers, the Director General drew attention to the importance of climate and disaster resilient infrastructure to protect lives and livelihoods, especially for those most at risk. CDRI will build on this opportunity to mainstream DRI at the UNFCCC platforms.

CDRI engaged in 17 sessions and co-led the infrastructure, energy and mobility pillar of the Resilience Hub. Sessions included discussions on data, capacity strengthening, innovation, knowledge sharing, finance, energy, infrastructure governance. Across the two weeks CDRI conducted several launches and high-profile announcements. CDRI's delegation engaged in detailed discussions with 11 Coalition member countries and over 40 organizations.



Launches

1

Urban
Infrastructure
Resilience
Programme

2

CDRI-UNDRR
Global
Methodology for
Infrastructure
Resilience
Review

3

Global
Infrastructure
Risk Model and
Resilience Index
(GIRI) digital
platform

4

The DRI
Connect
platform

Key announcements

1

The Indo-Pacific
QUAD commitment
to enhance
resilience of seaport
infrastructure

2

Launch of
Community of
Practice on the
impact of heat on
infrastructure

There were 15 press engagements in India and UAE included interactions with *Associated Press, Bloomberg, Prasar Gulf, Hindustan Times, Times of India, CNBC TV18, CNN News 18 and DD India.*

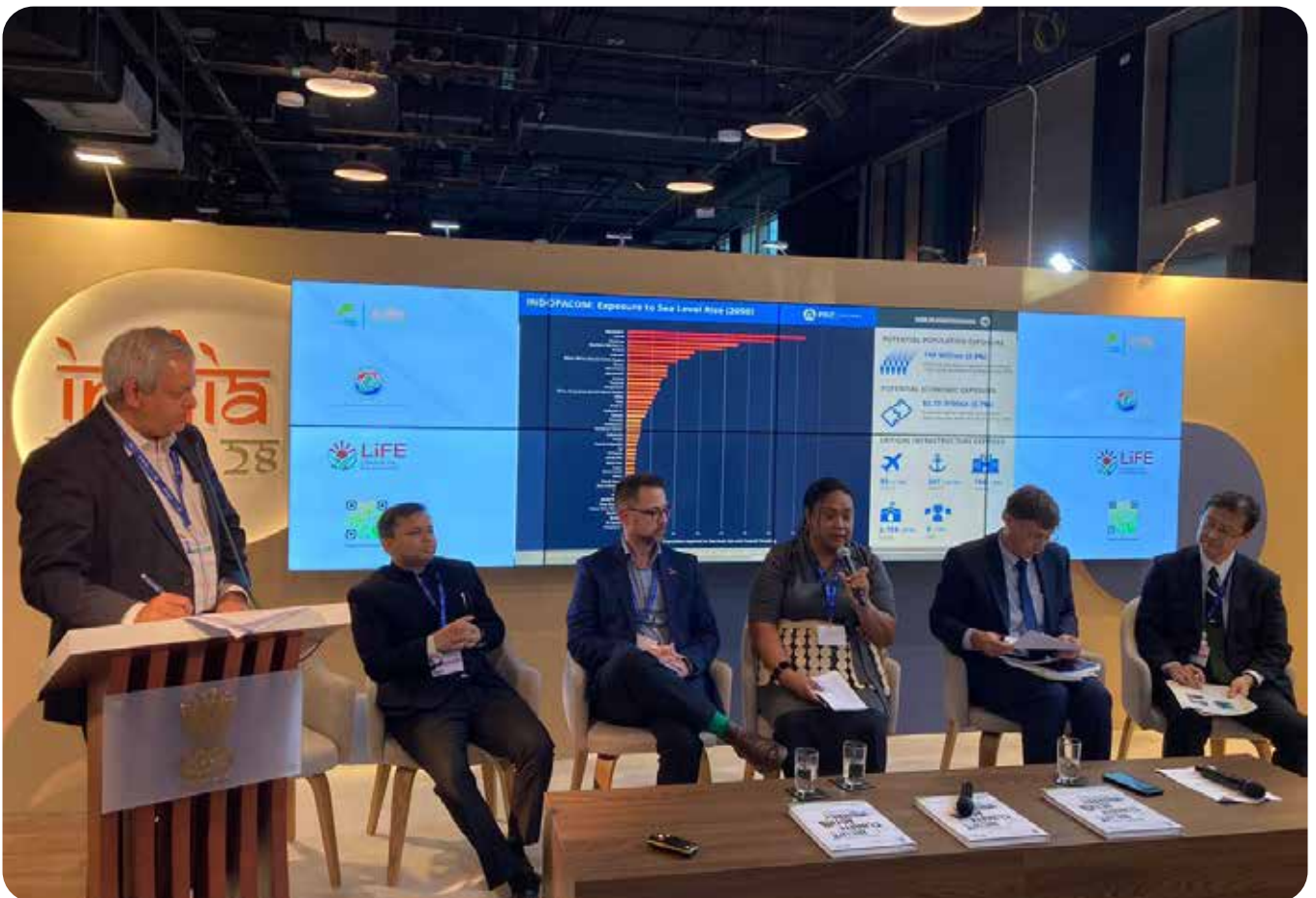
Impact

Following the convening of the QUAD representatives from Australia, India, Japan, and the United States of America at COP28, QUAD Members agreed in-principle for the need for the Call to Action for seaports resilience. In preparation for the QUAD Leaders' Summit in 2024, CDRI supported drafting of the agenda for this Call to Action.

The high-level engagement between DG CDRI and ADB representatives resulted in an agreement for a joint work programme focused on DRI.



CDRI Director General delivering Observer Statement at the UNFCCC High-Level Segment for Observers, COP28, Dubai, UAE



CDRI session, COP28, Dubai, UAE

Engagement with Global and Regional Platforms to Advance the Agenda of DRI

■ Goal

To take advantage of regional and global platforms on climate change, sustainable development and Disaster Risk Reduction to advocate for and champion international action and partnerships to enhance DRI.

🏢 Action

➔ High-Level Political Forum (HLPF) - July 2023, New York, USA

The Director General participated in a side event of the HLPF on the theme, "Resilience – Safeguarding Gains in Sustainable Development."

➔ WTO Climate and Environment Week – June 2023, Geneva, Switzerland

CDRI presented its work in a Government of India session.

➔ UNESCAP Disaster Resilience Week – July 2023, Bangkok, Thailand

CDRI co-organized a session with UNESCAP and ADPC on 'Bridging the Gap in Risk-Informed Decision making for Infrastructure Resilience.'

➔ UN SDG Action Weekend Side-event – September 2023, New York, USA

CDRI organized a high-level panel discussion on 'Accelerating SDGs through risk-informed investments in infrastructure.'

➔ Latin America and Caribbean Climate Week (LACCCW) – October 2023, Panama City, Panama

CDRI organized a session on: Realizing the Vision for Resilient Infrastructure in SIDS and contributed to identifying the LAC region's priorities for resilient infrastructure and provided inputs for the New programme of Action for SIDS.

📌 Result

The engagements at the UN ESCAP Disaster Week, WTO Climate and Environment Week, and ICAO's Air Navigation World 2023 successfully showcased the relevance of DRI in different contexts and offered visibility to CDRI and its work across sectors and themes. Participation in the regional climate weeks built CDRI's international reputation and visibility and led to more meaningful engagements at COP28 later in the year.

📌 Impact

CDRI's highlighting of the call for proposals under IRIS and the Fellowship programme led to increased numbers of applications including from new geographies.



CDRI event, HLPF 2023, New York, USA



CDRI event, SDG Action Weekend, New York, USA

Infrastructure Resilience Accelerator Fund (IRAF)

■ Goal

To provide a mechanism for funders to pool financial resources to support CDRI to identify, select, and fund projects in a participatory, accountable and transparent manner.

■ Action

IRAF was formally launched in 2023. A Trust Fund Management Committee was established as an inclusive governance mechanism to provide strategic guidance and oversight to the Fund activities.

The Fund's policies and operating procedures to support due diligence, fast accreditation, speedy disbursements, as well as oversight and quality assurance processes were set up.

➔ Result

The Fund's first financing agreements with the Government of the United Kingdom and the European Union for a total of US\$ 14,192,697 were signed. Capitalizing the fund was discussed with the Governments of India and Australia.

The first call for proposal funding window under the Infrastructure for Resilient Island States programme for Small Island Developing States was completed successfully and the first tranche of funds to selected projects disbursed.

➔ Impact

CDRI identified and awarded funding to 11 projects across 13 SIDS and now has a team and process in place that can be used to disburse funds for future technical assistance programmes in line with the Strategic Work Plan.





02

Capacity building and knowledge initiatives



Global DRI research, Coalition-led peer engagement, and CDRI-curated and generated knowledge promote risk-informed policy and practice

- Stakeholders demonstrate an enhanced understanding of resilience with regard to emerging risks, uncertainties and Vulnerabilities.
- Countries are supported to adopt DRI into governance and institutional arrangements.
- Governments and other stakeholders have timely access to contextual knowledge and
- Peer-to-peer engagement opportunities to support DRI action.

Highlights of the year

1

Launching the inaugural edition of the Biennial Report on *Global Infrastructure Resilience: Capturing the Resilience Dividend*.

2

Supporting 32 fellowship project teams across 20 countries.

3

Launching DRI Connect, CDRI's one-stop digital knowledge exchange, learning, & co-creating platform on climate and disaster resilient infrastructure (DRI).

“

If we are to help every community withstand disaster, it's on all of us to identify new and existing partnerships that can help us strengthen community resilience – and to build a movement driven not just by governments, but by all.

Samantha Power

Administrator of the United States Agency for International Development (USAID)

”



Flagship Biennial Report

■ Goal

To provide a compelling economic, financial, and political imperative for investing in DRI.

■ Action

To conceptualise the Report, CDRI brought together partners with global expertise to take part in online workshops and discussions over a one-year period. Once the structure was agreed, each of the chapters was drafted by international experts and extensively peer reviewed. The process also benefited from a high-level International Advisory Board.

The Report was launched in October 2023 by Shri Kiren Rijju, Union Cabinet Minister for the Ministry of Earth Sciences, Government of India. The event was marked by the endorsement and support of a distinguished group of global leaders, partners and experts including Shri Suman Bery, Vice Chairman, NITI Aayog, H.E. Eric Garcetti, Ambassador of the United States of America to the Republic of India and Mr. Kamal Kishore, Member and Head, NDMA, Government of India, and India Co-chair, Executive Committee, CDRI.



Launch of CDRI Biennial Report on Global Infrastructure Resilience, New Delhi, India

Result

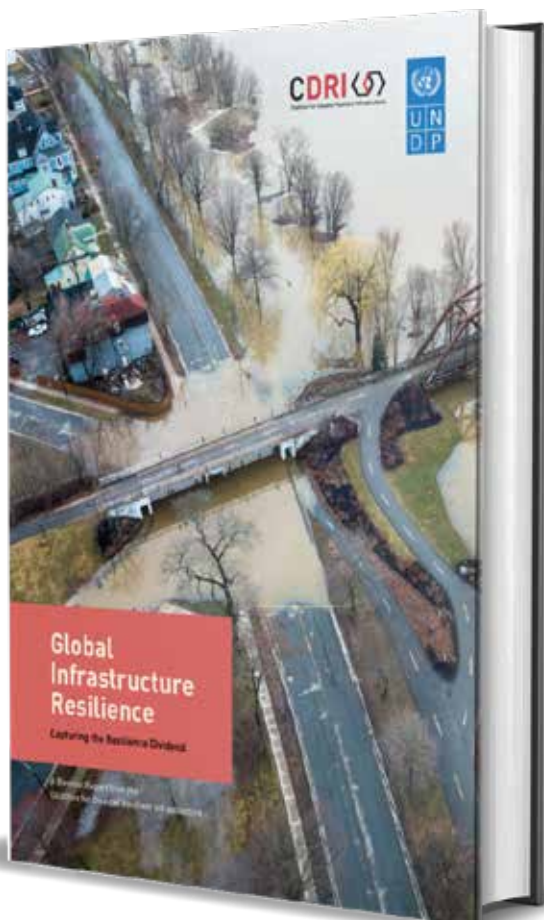
The Report made a compelling case for the 'Resilience Dividend' and outlined strategies for strengthening global infrastructure resilience. It emphasizes the use of Nature-based Infrastructure Solutions and innovative financing mechanisms to build resilience.

The Report was informed by data from the Global Infrastructure Risk Model & Resilience Index (GIRI), the publicly available first-ever fully probabilistic global risk assessment of infrastructure assets.

The launch and the report's key message "climate change causing infrastructure loss of \$850bn a year globally" was covered by Indian and international media such as *The New York Times*, *Forbes*, *Times of India*, *CBNC TV 18*, *Mirror Now*, *Climate Context*, *Energy Mix* and *The Hindu*. The total coverage exceeded 275 stories.

Impact

Building on feedback from stakeholders around the world, a second edition, to be released in 2025, will feature improved data resolution, more in-depth thematic analyses, and updated risk metrics. It will also provide detailed case studies to aid policymakers, investors and practitioners in making risk informed decisions.



Emphasizing the significance of resilient, inclusive, and environmentally conscious solutions, this report serves as a pivotal resource for policymakers, investors, and visionaries, inspiring collective action for a brighter, interconnected future. ”

Suman Bery
Vice Chairperson, NITI Aayog

Global Infrastructure Risk Model and Resilience Index (GIRI)

■ Goal

To support governments to make risk informed decisions through the provision of the first-ever publicly available probabilistic risk model.

■ Action

The GIRI Data Platform was developed by the GRID practice of the United Nations Environment Programme for CDRI and offers unparalleled insights into disaster and climate-related risks.

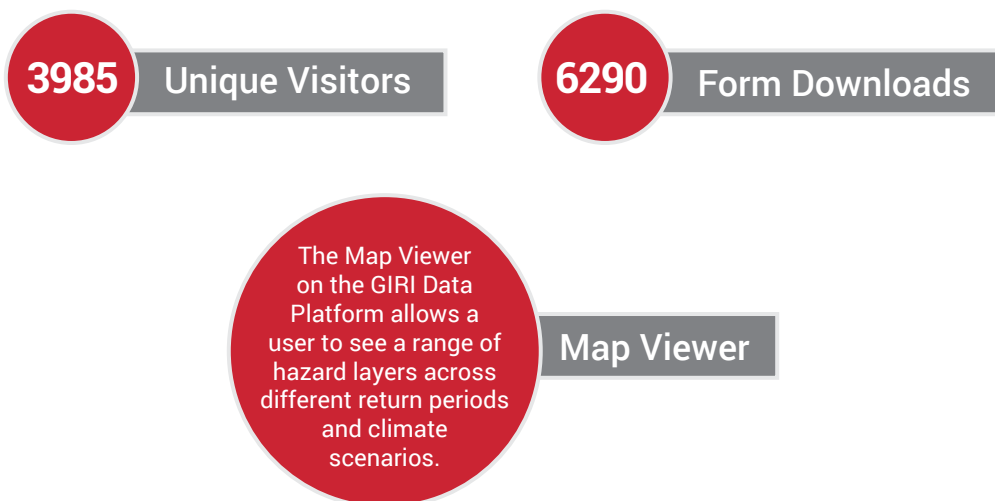
GIRI is the first publicly available fully probabilistic global risk assessment of infrastructure assets for some of the critical infrastructure sectors (power, telecommunications, ports and airports, water and wastewater, roads and railways, oil & gas, buildings, health and education) across major geological and climate related hazards (earthquake, tsunami, landslide, flood, tropical cyclone and drought) at country level in the world.

Representatives from the Foreign, Commonwealth and Development Office (FCDO), The Economic and Social Commission for Asia and the Pacific Office (UN ESCAP), Indian Foreign Services among others were trained to use GIRI to understand and facilitate greater understanding of the benefits of investing in DRI, and to allow users to interpret the capacity of a country to absorb, respond and recover from disasters.

➔ Result

The GIRI Data Platform allows users to explore different hazard and exposure layers, for distinct climate scenarios. By profiling countries based on sectors and hazards, the platform provides users with extensive over of risk and resilience analysis. Users can seamlessly access and download a comprehensive array of risk metrics while enabling dynamic on-screen visualization and analysis.

GIRI datasets can be freely downloaded allowing access by those most at risk and in need and can provide the basis for developing national infrastructure pipelines, policies and enhanced infrastructure standards. CDRI has also developed and disseminated country profiles to assist governments to develop evidence-based policies and plans.



Impact

UN ESCAP is using GIRI data to support its 53 member countries to make risk informed decisions. The University of Oxford has used GIRI data in various contexts, including the Country Climate and Development Reports for the Caribbean and the evaluation of economic impacts from infrastructure failures using the IMF's DIGNAD model across over 12 countries.

GIRI is being used to support CDRI's Fiscal Risk Assessment (FRA) study to assess the cost of direct losses to infrastructure assets (Roads, bridges and Power Sector – T&D assets) due to various natural hazards and for different climate scenarios.



[Home](#) [MAP viewer](#) [RISK Metrics](#) [Documentation](#) [Contact Us](#)

Global Infrastructure Risk Model and Resilience Index (GIRI)

Measuring Risk & Resilience in Infrastructure Sectors

High Income

Average Annual Loss (USD Billion)

535

Upper-middle Income

Average Annual Loss (USD Billion)

373

Lower-middle Income

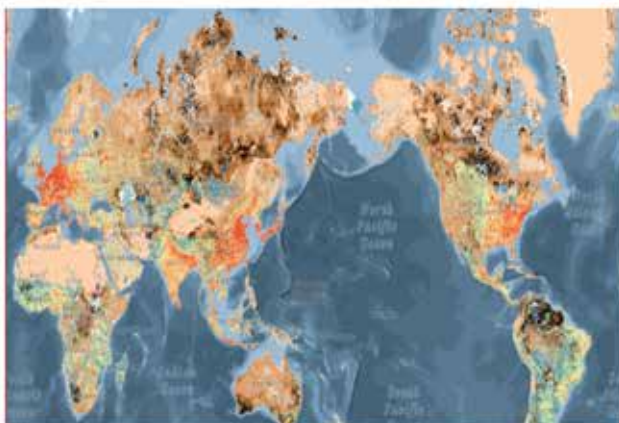
Average Annual Loss (USD Billion)

127

Low Income

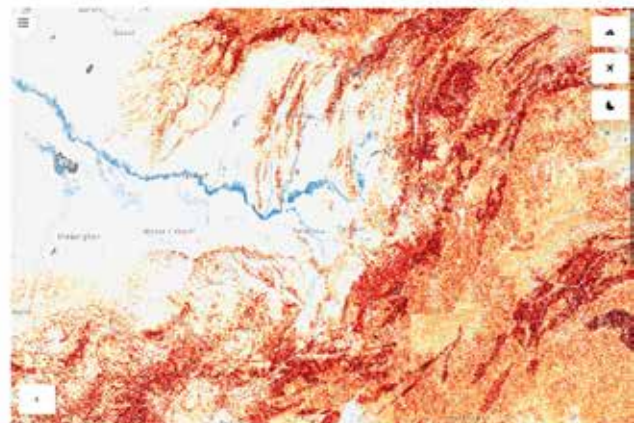
Average Annual Loss (USD Billion)

10



Full set of hazard & risk layers

In this section, you can browse through the more than 100 layers generated for the GIRI project. You can also create your own custom space.



Landslide Map

Landslide map based on probabilistic model-generated events highlighting the likelihood and severity of the event.

Fellowship Programme

■ Goal

To promote cutting-edge research and innovation in DRI and create actionable solutions at local level.

■ Action

CDRI supported 70 Fellows from two cohorts across 32 project teams in 20 Coalition Member Countries. Teams were provided with a 12-month seed grant worth US\$ 15,000 and supported by international experts engaged by the Fellowship Programme including Dr. Kristen MacAskill (University of Cambridge, UK), Dr. Anne Gibbs (CEO, Asset Management Council, Australia), Dr. Parisa Kloss (Founder, Resilient Urban Planning and Development, Germany) and Prof. Vasilis Sarhosis (University of Leeds, UK).

The projects pursued themes including early warning and decision support systems, resilience standards, nature-based infrastructure solutions, disaster risk finance, health infrastructure resilience, people-centred infrastructure solutions, capacity building for infrastructure resilience and urban infrastructure resilience through future thinking and foresight approaches.

The Fellows were supported to share their final project outcomes in a series of webinars organized by CDRI and their detailed project reports shall be published as part of an edited volume.



Status as on March 2024

➔ Result

The Programme disbursed over US\$ 345,000.

A rich range of innovative and actionable solutions emerged from Cohort 2022-23 addressing the resilience of critical infrastructure while factoring in the socioeconomic elements crucial for shoring up community resilience.

Over 100 applications were received for the fourth edition of the Fellowship (Cohort 2024-25) and after a rigorous multi-tiered review process, 20 teams from nine Coalition Member countries were selected in March 2024.

➔ Impact

A team from Peru designed and constructed a self-sufficient multi-purpose floating platform, with in-built water collection and post-usage treatment system, to cater to the needs of communities living in amphibian settlements in remote areas of the Amazonian region.

A team from Bangladesh validated an innovative Cyclone Classifier Model that can be used by national disaster management authorities to generate crucial location-specific information and preparedness advisory which would make cyclone early warning more reliable and useful for the local people.

A fellow from India worked on enhancing flood prediction based on cutting-edge deep learning technology to assist emergency response teams as well as policymakers and urban planners in developing flood mitigation strategies, optimizing resource allocation and improving infrastructure resilience. They also developed a citizen science-inspired app designed to collect real-time information from local populace about floods and storms.

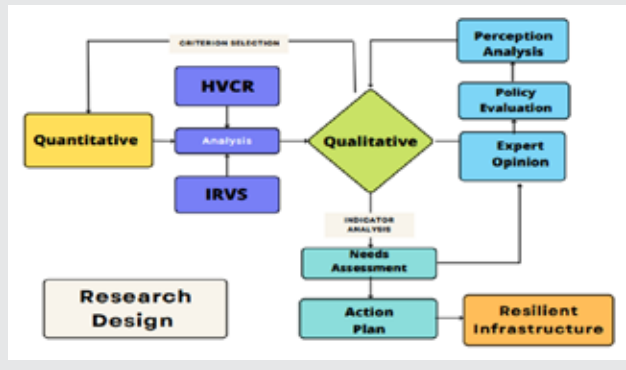


CDRI Fellowship Community Workshop, Bangladesh

A Few Projects' Highlights

India

Strengthening disaster resilience of educational infrastructure in Srinagar city- a progressive consortium of academic institutions for disaster risk reduction



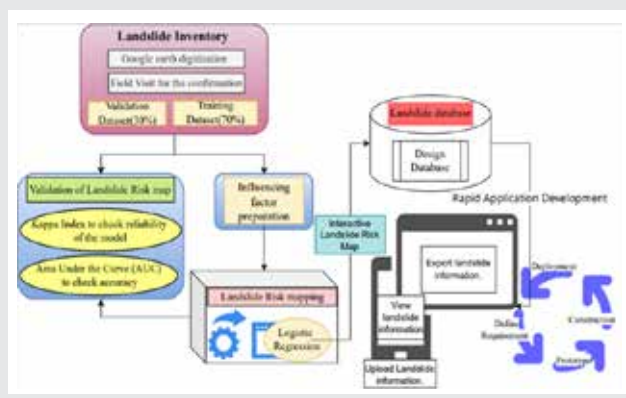
Bangladesh

Bottom-up approach to uptake pre-disaster recovery strategy through advanced cyclone classifier model in south-western zone of Bangladesh



Bhutan

Landslide risk mapping and development of landslide database and mobile app for Bhutan



India

DeepINDRA: Detecting flood inundation using deep learning and citizen science



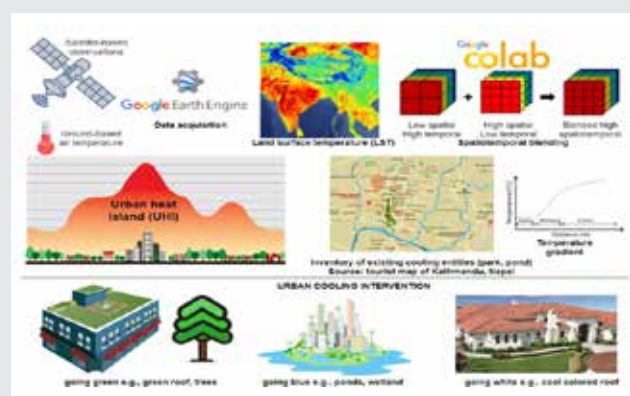
Italy

Debris flow risk mapping and early warning for people safety and infrastructure resilience



Nepal

Urban cooling to mitigate heat exposure in Nepalese cities: Geo-spatial assessment of green roof, urban parks and wetlands



DRI Connect Platform

■ Goal

To create a knowledge and learning platform on DRI that brings together international stakeholders to learn and share.

■ Action

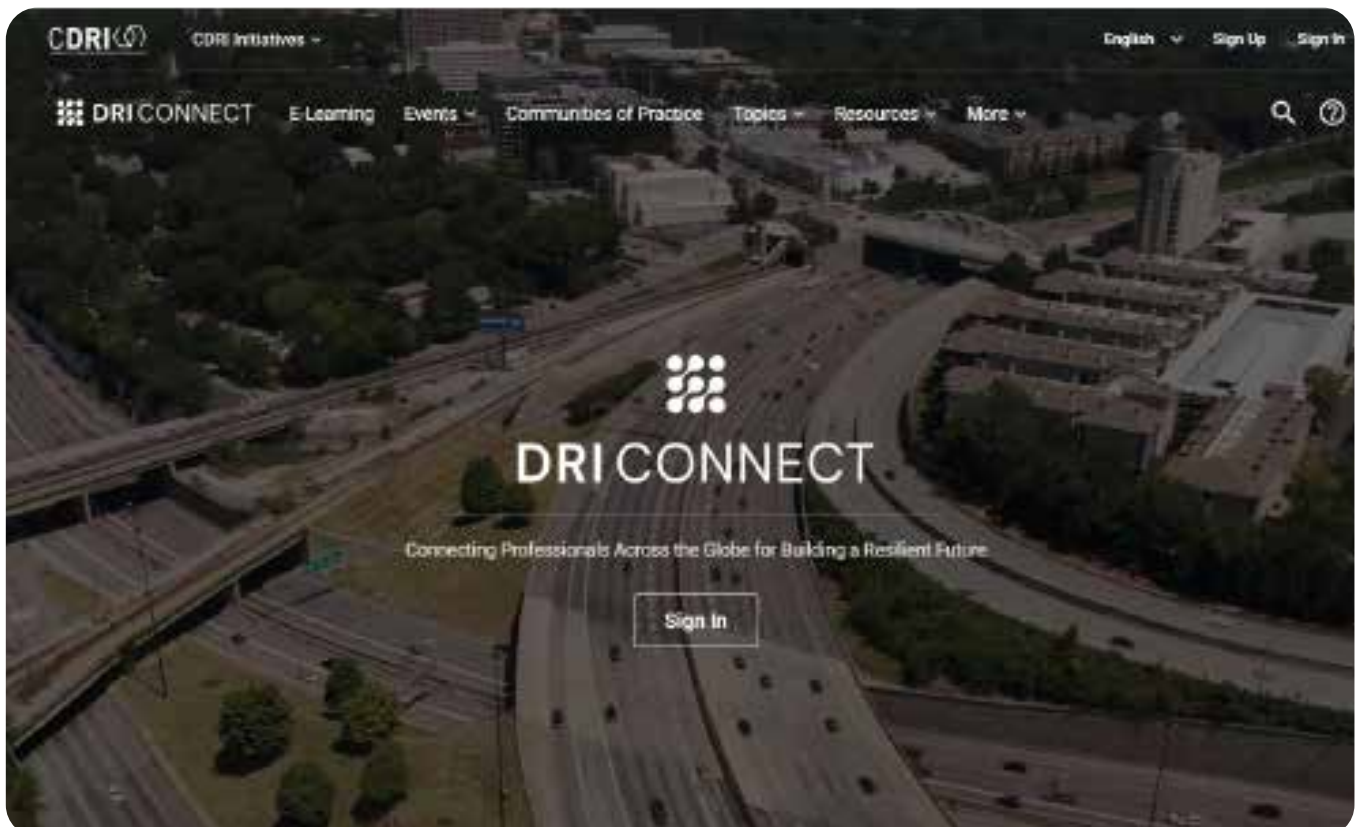
The design and development phase of the digital platform concluded and DRI Connect was launched at COP28 in a side-event at the IPCC-WMO-MERI-NCM Pavilion.

DRI Connect was promoted as a one-stop digital knowledge exchange, learning, & co-creating platform on climate and DRI, targeted at a range of stakeholders including infrastructure professionals, academia, researchers and policymakers.

A content sharing agreement was signed with UNDRR's PreventionWeb to aggregate and list 20 recent DRI-related publications and resources from the latter on DRI. Additionally, ADB has shared DRI-specific publications for hosting on the platform.

➔ Result

DRI connect now provides a unified learning, knowledge exchange and co-creating environment for DRI stakeholders. It offers users the ability to deliver webinars and virtual dialogues; providing access to e-learning courses on DRI topics and knowledge resources; hosting Communities of Practice on key themes.



DRI Lexicon

■ Goal

To build a shared and common technical vocabulary around DRI.

■ Action

The Lexicon was created over a period of 10 months by a panel of international experts representing governments, the private and non-profit sectors and academia representing different geographies and varied disciplines including engineering and architecture, spatial planning, finance, social sciences and knowledge management who engaged with CDRI secretariat to develop the definitions of priority terms relevant for DRI.

The Lexicon benefitted from inputs by the project's Advisory Committee, consisting of representatives from Asian Development Bank (ADB), World Bank Group, United Nations Office for Disaster Risk Reduction (UNDRR) and the European Union, and from the feedback received from an international consultation.

➔ Result

The DRI Lexicon was launched, containing 66 key terms, during ICDRI 2023 by Shri Bhupender Yadav, Hon. Minister for Environment, Forest and Climate Change, Government of India, and Hon. Olo Fiti Afoa Vaai, Minister of Works, transport and Infrastructure, Government of Samoa.

Translation has been completed in seven languages for greater outreach through various programmes and initiatives.

➔ Impact

Due to demand after the launch, an e-learning module for DRI professionals is being developed and will be freely available on DRI Connect.



8. Critical infrastructure

The physical structures, facilities, networks, and other assets, which provide services that are indispensable to the social and economic functioning of society, and which are necessary for managing disaster risk.

D

12. Disaster resilience

The ability of a system, community or society exposed to one or more hazards to resist, absorb, accommodate, adapt to, transform, and recover from disasters in a manner that is timely, efficient, and reduces risk, including through the preservation and restoration of essential basic structures and functions.

Infrastructure Resilience Academic eXchange (IRAX)

■ Goal

To train infrastructure professionals and foster research and capacity development by universities in member countries.

▣ Action

CDRI refined IRAX's objectives, including through consultations with member country officials, academic experts and universities. Sessions were held at ICDRI 2023 and ICDRI Americas to draft IRAX's vision, goals and initiatives. Discussions were held with universities in India, the UK and the US, and a dataset of universities with existing capacities on DRI was also created.

Funding to support IRAX was announced by USAID to support US-India University partnerships. A Request for Applications (RFA) document was released by USAID to invite concept notes from the universities of India and US to support CDRI on IRAX activities.

➔ Result

The vision for IRAX was finalized around six pillars: (i) network modality for university engagements (ii) curriculums (iii) industry connect (iv) research (v) capacity building and (vi) fellowships.

▣ Impact

A Consortium of Universities across member countries is being developed. This consortium will support universities to enhance their capacities on DRI education and research. IRAX will utilize the strengths of this consortium for developing a model curriculum on DRI, self-paced and classroom style capacity development programmes for working professionals, and knowledge products and repositories.



Training for Government Officials on DRI

■ Goal

To support the enhancement of technical, managerial, and financial capacity of those engaged in the planning, design, construction, and operation and maintenance of critical infrastructure systems.

■ Action

CDRI organized and supported capacity building sessions throughout the year.

S. No.	Training	Title	Date	Place	Programme	Participants
1.	Training	Ensuring Sustainable Development Leadership in Climate Change	12 April 2023	Indian Institute of Public Administration (IIPA)	Under MEA's ITEC programme	31 Foreign Government Officials (country representatives)
2.	Training of Trainers (ToT) workshop on IRAX	Disaster Resilient Infrastructure Engineering	28 April 2023	Indian Institute of Technology (IIT) Bombay		20 representatives from Engineering colleges (NIT Calicut, MNIT Jaipur, BITS Pilani, etc.)
3.	Training session	Increasing Transport and Telecom Infrastructure Resilience	2 May 2023	Lal Bahadur Shastri National Academy of Administration (LBSNAA), Mussoorie		35 IAS Officers at the level of Secretaries, Municipal Commissioners and Senior Officials of Urban Local Bodies (ULB)s and Administrative Training Institute (ATI)s
4.	Training Session	Disaster Resilient Infrastructure (DRI) Development – DRI Lexicon, Resilience of Telecom Infrastructure and Disaster Risk Financing	20 July 2023	Indian Institute of Public Administration (IIPA), New Delhi		35 Officials from different ministries of Tanzania

S. No.	Training	Title	Date	Place	Programme	Participants
5.	Training Session	Pursuing Disaster Resilient Infrastructure (DRI) Agenda – DRI lexicon, Power Study	9 August 2023	Environment Protection Training and Research Institute (EPTRI), Hyderabad		26 officials from different ministries of 14 countries
6.	Training Session	Pursuing Disaster Resilient Infrastructure (DRI) Agenda with a focus on Need for Climate and DRI – DRI Lexicon, Airport study	19 September 2023	Indian Institute of Public Administration (IIPA), New Delhi		31 officials from different ministries of 31 countries
7.	Panel Discussion	Importance of DRI, CDRI's Mission to promote DRI through its programmes and members	20 October 2023		Along with NDMA Representative on Disaster management and Humanitarian Relief organized by Sushma Swaraj Institute of Foreign Service (SSIFS, New Delhi)	32 diplomats from various ministries from Armenia, Georgia and Mongolia
8.	Training Session	Developing Disaster Resilient Infrastructure to Mitigate Disaster Risks - DRI Lexicon, Biennial report, and telecom Infrastructure	6 December 2023	Indian Institute of Public Administration (IIPA), New Delhi		37 Foreign Government Officials from 35 countries

S. No.	Training	Title	Date	Place	Programme	Participants
9.	Training session	Importance of Making Resilient Telecommunication During Emergencies and the Need for Disaster Resilient Infrastructure, Natural Hazards & Climate Events - Impacts on Telecom infrastructure (Asset, Network and System), and Telecom Infrastructure resilience	9 January 2024	National Institute of Disaster Management (NIDM)	Part of NIDM's ongoing training programme on "Disaster Risk Mitigation for Telecommunication Sector	20 Indian Telecommunications Service (ITS) officials, from Department of Telecommunications (DoT), Govt. of India
10.	Orientation session	CDRI's ongoing programme on DRI and planned initiatives under QUAD	29 February 2024	New Delhi	Under the Raisina Young Fellows Programme 2024	Quad Fellows from Australia, India, Japan and US.
11.	Sensitization Programme	Resilient Infrastructure, Resilient Public Buildings, Resilient Health Infrastructure and Resilient Roads	14 March 2024	Lucknow, UP	With support from Relief Commissioner Office, Government of Uttar Pradesh	50 participants comprising city engineers and Public Works Department (PWD) officials

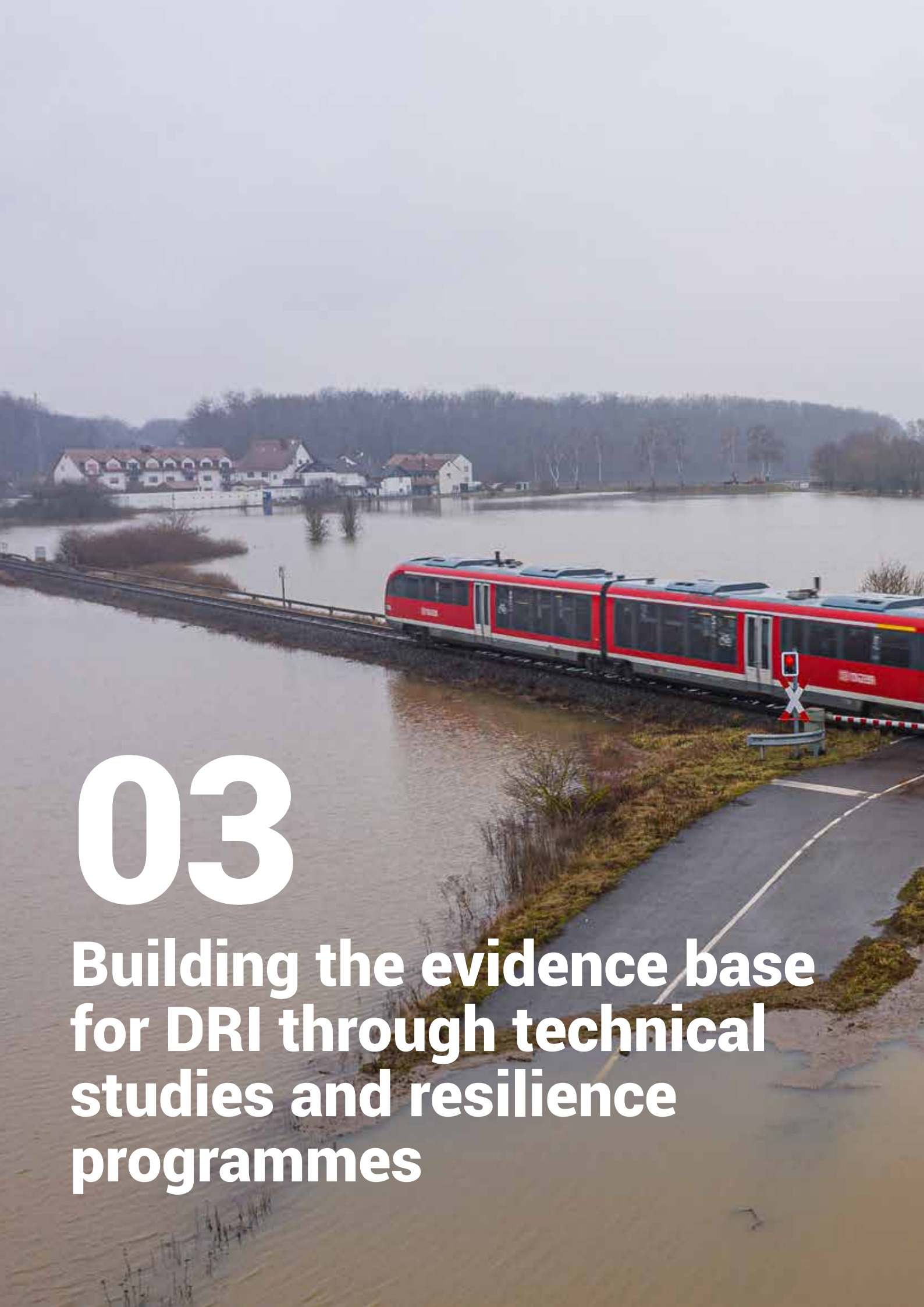
➔ Result

More than 300 officials and representatives from 55 countries received training and capacity building support.





Training Workshops for Foreign Government Officials



03

**Building the evidence base
for DRI through technical
studies and resilience
programmes**



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

- Institutions have greater capacities to innovate and integrate resilience into planning, construction, rebuilding and operation of infrastructure.
- Institutions have the capacities to mobilize and access finance for DRI.
- The Coalition mobilizes the development and upgradation of global, national and sectoral DRI standards, codes, specifications and guidelines.

Highlights of the year

1

CDRI awarded funding of US\$ 5.8 million to 11 projects across 13 SIDS.

2


CDRI's Urban Infrastructure Resilience Strategy was launched at COP28 and attracted funding of € 500,000 from Government of Netherlands for work to enhance urban water infrastructure resilience.

3

The Airport Council International (ACI World) convened a task force on climate change adaptation and resilience to support CDRI.

4

The Central Electricity Authority, Ministry of Power, Government of India, adopted a CDRI recommendation to create a fund of 1.5% of each power utility's annual revenue in their Disaster Management Plan Guidance documents.



CDRI has significantly enlarged the conversation. There are many more actors coming together, particularly from the private sector and academia to talk about how we work together on disaster resilient infrastructure. From understanding the problem, we are moving towards identifying solutions and facilitating exchange across the world and identifying some of the remaining challenges that we need to solve.

Kamal Kishore

Member & Head, NDMA, Government of India and India Co-chair,
Executive Committee, CDRI

Geo-contextual Initiatives

Infrastructure for Resilient Island States (IRIS)

■ Goal

To support sustainable development in Small Island Developing States (SIDS) through a systemic approach to resilient, sustainable, and inclusive infrastructure.



Action

→ Technical Assistance

CDRI launched a call for proposals at COP27 and received 50 expressions of interest. After a thorough review process, the IRIS Steering Committee, comprising the IRIS donors – India, Australia, the UK, and EU – and representatives of SIDS met in Chennai, India, and selected 11 projects across 13 SIDS to receive funding. This decision was endorsed by the CDRI Trust Fund Management Committee, and the announcement of successful projects made at ICDRI Americas. The first IRIS project agreement, for support to Dominican Republic was signed at COP28 in Dubai.

→ Advocacy for DRI in SIDS

CDRI highlighted the importance of DRI in SIDS on the global stage, most notably at the Latin America and Caribbean Climate Week in Panama City in October 2023 (session attended by 50 delegates) and at ICDRI Americas in Washington DC.

CDRI also began advocacy efforts toward the upcoming SIDS4 Conference, strengthening partnerships with the Government of Antigua and Barbuda, UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States.

Result

A total of 11 projects from 13 SIDS across the Caribbean, Pacific and Indian Ocean were awarded, totalling US\$ 5.8 million. Two projects reached the implementation stage, in Haiti and Dominica, and projects in Papua New Guinea, Guyana, and the Dominican Republic had completed preparations to begin implementing early in 2024-25.



Impact

Implementing partners in SIDS increased their capacity to manage MPTF funding.

Six new SIDS became members of the Coalition: Antigua and Barbuda, Cuba, Guyana, Nauru, Samoa, and Tonga.



I welcome the announcement of the support to 13 Small Island Developing States under the Infrastructure for Resilient Island States programme at the G20 Summit. From the joint launch at the COP26 climate conference in Glasgow to its implementation now, the UK is proud to partner with CDRI and India to support countries that are most vulnerable to climate change. ”

Alex Ellis
British High Commissioner to India



Australia is proud to be a founding member of CDRI and to support its IRIS initiative, which will support climate and disaster resilience in the Indo-Pacific. We welcome the selected projects and are pleased to continue working with our partners on initiatives that promote quality, sustainable and resilient infrastructure. ”

Philip Green
Australian High Commissioner to India



Development of resilient infrastructure is critical to limit the impact of climate change, especially in developing countries. The EU is happy to support CDRI's commitment towards the small island developing states (SIDS). The projects awarded by CDRI will concretely support SIDS in addressing critical resilient infrastructure issues. ”

H.E. Seppo Nurmi
Chargé d'affaires, Delegation of the European Union to India

Urban Infrastructure Resilience Programme (UIRP)

■ Goal

To drive action in four key areas within cities: improved awareness and capacities, informed infrastructure planning, augmented financial resources, and integrated resilience into infrastructure operations and maintenance.

🏗️ Action

A landscape analysis was conducted and consultations held with over 60 stakeholders in the inception phase of UIRP to identify needs, opportunities, and challenges in the urban infrastructure resilience domain. These stakeholders consulted included representatives from Member Countries, partners, multilateral and bilateral organizations, city networks, multilateral development banks, academic institutions, and non-governmental organizations. A comprehensive Theory of Change was developed, as a guiding framework for the UIRP.

A Community of Practices (CoP) with objective to develop guidelines for Extreme Heat Management in urban public transport systems in partnership with United States Agency for International Development (USAID) through Miyamoto International and Climate Resilience for All was conceptualized.

An Urban Water Infrastructure Resilience (UWIR) action plan was developed in consultation with CDRI member countries and partner organizations in 2023 to guide the CDRI and the Ministry of Infrastructure and Water Management, Government of Netherlands water partnership.

€ 500,000 was secured from the Government of Netherlands for urban water infrastructure resilience work. Development of training and capacity modules on 'Urban Water Infrastructure Resilience' was conducted in partnership with Deltares. Based on expert consultations conducted in March 2024, risk assessment, governance, nature-based solutions, and sustainable finance mechanisms were identified as training module topics.

➔ Result

The UIRP strategy was launched at COP28 in Dubai.

🏗️ Impact

Engagement with Ministry of Home Affairs, Government of India and National Disaster Management Authority led to the development of flood risk mitigation plans and a commitment of INR 230 crores to support seven cities in India.

Mountain Resilience Programme

■ Goal

To enhance DRI and foster sustainable development in mountain areas.

▣ Action

CDRI engaged with over 30 organizations including governments, disaster management authorities, global and regional organizations, academic institutes, and infrastructure experts are informing the development of the programme.

A three-part series of online events titled *ECHOES: Perspectives on Mountain Infrastructure Resilience*, were launched in March 2024. The first DRI dialogue on Integrating Risk Assessment for Resilient Infrastructure Planning in Mountain Regions was organized on 15 March 2024.

➔ Result

The Mountain Programme is under development. Potential partnerships are being finalized with global and regional organizations such as ICIMOD and the Mountain Partnership to support the programme.



Critical Infrastructure Resilience Initiatives

Transport Sector Resilience Programme

■ Goal

To provide support to enhance the resilience of critical transport infrastructure (airports, seaports and roads)

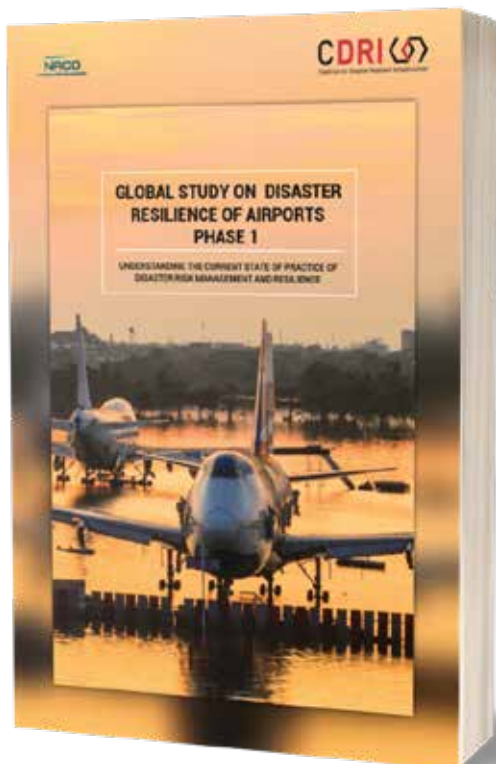
A. Global Study on Disaster Resilience of Airports (GSDRA)

■ Action

The report on *Global Study on Disaster Resilience of Airports: Phase- I* on "Understanding the current state of practice of disaster risk management and resilience" was released at ICDRI 2023 by Hon. Olo Fiti Afoa Vaai, Minister of Works, Transport and Infrastructure, Government of Samoa; Lt. Gen. Vinod G Khandare, Principal Advisor, Ministry of Defence, Government of India; and, Mr. Amit Prothi, Director General, CDRI.

The Phase-II detailed study on existing practices on disaster risk management and resilience of airport infrastructure, and investment mechanism towards risk and resilience financing has commenced. It will cover 12 airports across 11 countries: India, Australia, Bhutan, Fiji, Germany, Italy, Japan, Mauritius, Madagascar, Peru and USA.

Discussions with UNDP-GARD (Get Airports Ready for Disasters) were initiated in August 2023 to explore collaborative opportunities on resilience of airport infrastructure at global and regional level.



- Out of the participating 111 airports in the study, 71.6% airports have conducted vulnerability assessment for their infrastructure at least once.
- Of the airports conducting vulnerability assessments periodically, 55.3% conduct vulnerability assessments yearly and 27.7% conduct one every 2 to 5 years.

Result

The Phase-I study captured the perception of airport managers on hazards, exposure, vulnerability and resilience of infrastructure and its systems, across 111 airports in 54 countries. It also provides examples and recommendations for airports, governments, and knowledge institutions. Based on the findings of the Phase-1 study, CDRI engaged with global and regional forums to advocate on the need to integrate infrastructure resilience into airports.

Impact

The Airport Council International (ACI World) has convened a Task Force on Climate Change Adaptation and Resilience to support CDRI and continue GSDRA work. The first convening was held along with the 46th meeting of World Environment Standing Committee (WEnSC46) of ACI World in Nairobi in September 2023, to conduct a scoping exercise. Subsequent meetings with airports and Task Force members were held in December 2023 and March 2024, to discuss the scope, objectives, and deliverables of the Task Force.

B. Resilience of Seaports

Action

CDRI collaborated with National Maritime Foundation, New Delhi, and Keio University, Japan for *Development of Systemic Risk Assessment Framework for Seaport Ecosystem in India*. The study aimed to identify risks, interconnected drivers of resilience, classify the degree of direct and cascading impacts of hazards on the port ecosystem and understand the magnitude of the disruption at systemic level. Paradip and Visakhapatnam ports are part of Phase-I while Mundra, Mumbai, and Port Blair ports will be a part of Phase-II study. Consultation on the Phase-I ports for acute climate risk (cyclone) is complete. The data collection included a survey, stakeholder consultation and identification of intra- and inter-system level components.

CDRI also supported the “Indo-Pacific Region Resilient Seaport Infrastructure Programme” was initiated under the Quad Climate Working Group. The programme aims to provide strategic opportunities to strengthen the resilience of port infrastructure through short-term, interim, and long-term activities, leveraging existing Quad initiatives and other regional forums in the Indo-Pacific region.

At COP28, a session on “Call for Action: Enhancing Seaport Infrastructure Resilience in Indo-Pacific region” was organized with Quad partners and Mauritius and Tonga representing the Indo-Pacific region. CDRI also led and partnered in two sessions respectively - Capturing the Resilience Dividend: Quad Achievements under the Climate Adaptation; and Financing the Resilient and Sustainable Infrastructure: Role of Public-Private Partnerships (PPPs).

Result

Development of the resilience framework for seaports was progressed. The consultations on Phase-II were agreed to be held in 2024-25 for chronic climate risk (sea-level rise). A strategic document on *Call for Action: Enhancing Seaport Infrastructure Resilience* and concept notes for virtual capacity strengthening workshops were shared with Quad partners for review.

C. Resilience of Roads

Action

CDRI is working with members of the resilience road network. For example, by:

- Responding to a request from the Government of Dominican Republic, CDRI has been working on a proposal to provide technical support to enhance the resilience of multi-modal transport system, including roads in Dominican Republic.
- At the request of the State Government and State Disaster Management Authority of Himachal Pradesh, India, CDRI completed an assessment on the roadside landslide mitigation risks through stakeholder consultation and field visits to two strategic roads in Shimla, in February 2024.



Power Sector Resilience Programme

■ Goal

To strengthen the resilience of power infrastructure against various hazards, including those arising from climate change and extreme weather events.

A. Disaster Resilient Power Systems in Odisha

🏠 Action

CDRI conducted a comprehensive assessment of the state's transmission and distribution infrastructure for its vulnerability to cyclones and floods along its 480 km coastline. By categorizing assets based on criticality, coastal proximity, and vulnerability, the study provided a clear roadmap to the state for prioritizing resource allocation to enhance resilience in the power infrastructure. During 2023-24, the project conducted five cross-sectoral stakeholder consultations wherein all the power discoms, state transmission utilities and generation utilities participated in further enhancing the findings and recommendations that emerged out of the study. CDRI, in partnership with Grid Corporation of Odisha and the Odisha State Disaster Management Authority, secured endorsement from the utilities to implement the recommendations and roadmap suggested in the study.

🏠➔ Result

The first phase of the Odisha study has been completed, and the findings were presented to the Minister of State for Power, the Government of India, and other stakeholders across the states. The remaining phase is expected to be completed in 2024, with the event scheduled for June 2024.

The methodology developed in the Odisha study is designed so it can be readily adapted to assess the resilience of power infrastructure in other states and countries facing similar challenges. The recommendations arising from the study will suggest ways to enhance resilience and ensure reliable power supply during extreme weather events and disasters.

🏠➔ Impact

The Government of India and the Government of the State of Odisha are implementing multiple recommendations from the Odisha study including:

- ➔ Creating a fund of 1.5% of each power utility's annual revenue in their Disaster Management Plan Guidance documents.
- ➔ Developing a National Disaster Resource Inventory for the Power Sector (DRIPS) to enhance utilities' preparedness against natural hazards.

B. Chile Power Resilience Project

Action

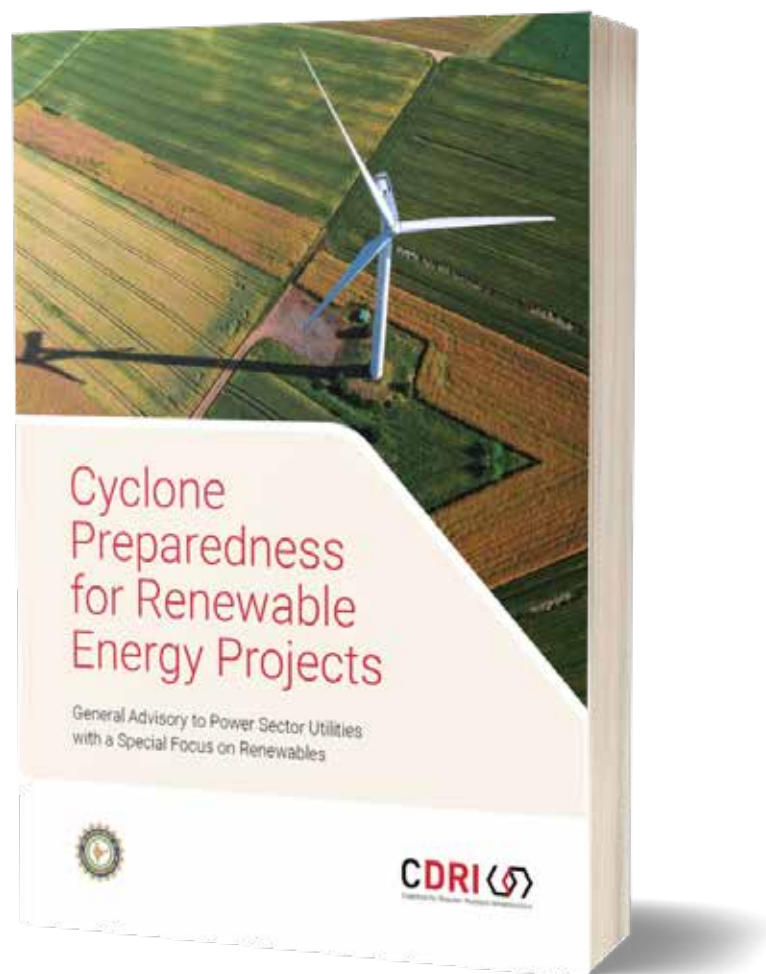
CDRI is worked to initiate support to Chile to improve the resilience of its power sector. The CDRI Secretariat finalized the draft MoU and Terms of Reference for the implementation of the project.

C. Advisory on preparing and adapting project sites and operations for cyclone impacts

Action

CDRI released an advisory to stakeholders on preparing and adapting project sites and operations for cyclone impacts.

CDRI also supported the Ministry of Power, Ministry of New and Renewable Energy, and the National Disaster Management Authority, Government of India in developing and circulating the comprehensive cyclone preparedness advisory for renewable energy projects and distribution utilities to ensure disaster preparedness and business continuity for the power sector during the Cyclone Biparjoy.



Telecommunications Sector Resilience Programme

■ Goal

To mainstream resilience principles in telecom infrastructure at the policy and planning level, and promote cross-sectoral collaboration and coordination.

▣ Action

CDRI conceptualized a study on National and Subnational Disaster Risk and Resilience Assessment Framework (DRRAF) and Roadmap for the telecommunications sector in India. The study has been initiated in five Indian states of Assam, Gujarat, Odisha, Tamil Nadu and Uttarakhand. It will provide a strategic roadmap for ensuring resilient connectivity to geophysical, and hydrometeorological disasters.

CDRI participated in the "GSMA Humanitarian Connectivity Charter Asia-Pacific Workshop" in January 2024, in the Philippines. The workshop provided valuable insights into the current landscape of disaster and telecom infrastructure resilience, focusing on the role of mobile technology in early warning systems and innovation in disaster resilience.

CDRI held consultations with Bhutan Telecom Ltd. and Ministry of communications and digitalization, Ghana. A national-level risk assessment for telecom assets is being finalized with Bhutan Telecom Ltd. Stakeholders.

▣ Result

A technical advisory committee with members from Japan, Italy, India and the Telecommunication Development Bureau (of the International Telecommunication Union) was created to provide oversight and guidance to the Programme.

Phase I, II and III of National and Subnational DRRAF for Telecommunication sector, India was completed with the identification of vulnerable districts and completion of stakeholders' consultations in the five focus states. Phase 4 has commenced with development of DRRAF framework and roadmap for the states.



Coastal Telecom Resilience Field Test, Gujarat, India

Health Sector Resilience Programme

■ Goal

To strengthen the resilience of health systems to disasters and climate induced events.

▣ Action

In collaboration with World Health Organization, India, CDRI piloted a project in Sikkim, India, to develop a policy roadmap for building resilience of the state's health infrastructure. The project included capacity building initiatives, risk and resilience assessments, and technical assistance.

Seven train-the-trainer workshops were conducted across all districts of Sikkim. Participants were trained on various hazards, disaster preparedness and planning, and health infrastructure resilience. They were also engaged in developing facility-specific disaster and resilience plans, which were practiced through mock drills and simulation exercises.

During the pilot implementation period, Sikkim was hit by a devastating Glacial Lake Outburst Floods (GLOF) event. CDRI assisted in an NDMA led Post-Disaster Needs Assessment (PDNA) of the health sector.

➔ Result



CDRI capacity building workshop, Sikkim, India

CDRI's work contributed to strengthening the Government of Sikkim's understanding of the impact of disaster risks on health infrastructure systems and improved their capacity for building resilience. More than 500 stakeholders were sensitized on health emergency preparedness, disaster planning, and infrastructure resilience and a framework for risk and resilience assessment of hospital is being developed.

▣ Impact

Based on the learnings from the pilot project, CDRI is now developing a global programme on resilient health infrastructure.

Much of the health sector PDNA recommendations for the 2023 GLOF in Sikkim, supported by CDRI, have been adopted by the state government.

Infrastructure Governance Programme

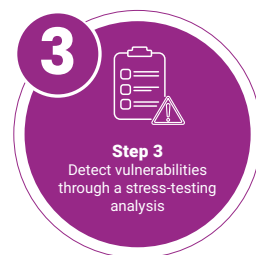
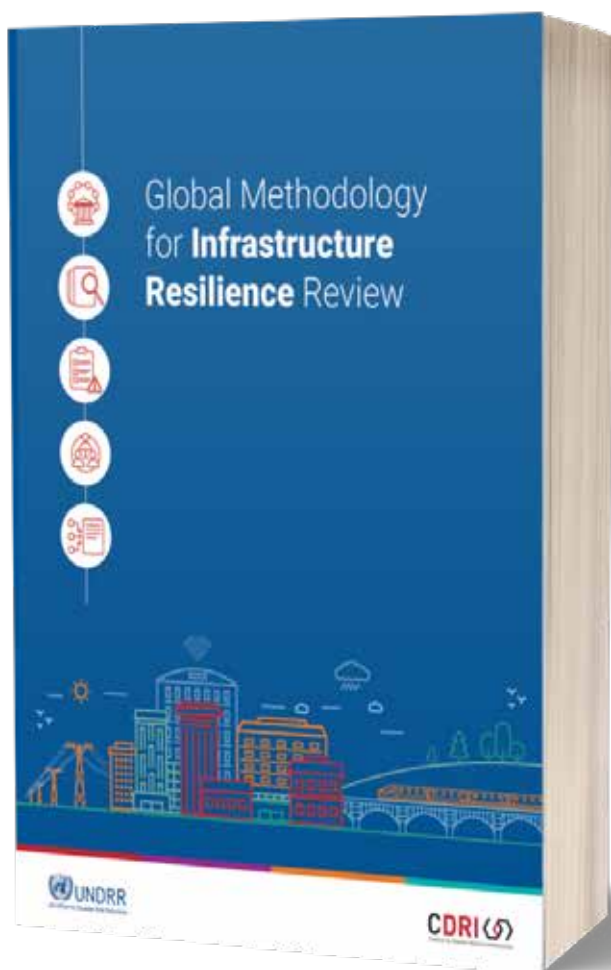
■ Goal

To establish and enhance infrastructure governance mechanisms across CDRI member countries.

■ Action

A 'Global Methodology for Infrastructure Resilience Review' was developed by CDRI and the United Nations Office for Disaster Risk Reduction (UNDRR) and launched at COP28.

Four countries – Bhutan, Chile, Madagascar, and Tonga – were supported to begin implementing the Global Methodology. Workshops were organised with key infrastructure stakeholders which introduced the project and established dynamic cross-sectoral technical working groups to drive project implementation of the methodology. Legislative and regulatory reviews were also conducted in each country, and stress testing and application of the Principles for Resilient Infrastructure Scorecard undertaken.



➔ Result

Bhutan, Chile, Madagascar, and Tonga advanced a pipeline of resilience-building actions including policy reforms, structural enhancement, improved coordination mechanisms, and effective usage of data.

Initial results from policy reviews, stress testing and the current state of resilient infrastructure assessment highlighted the need for a deeper analysis for some targeted sectors. In response deep dive workshops with stakeholders from the water sector were conducted for a more detailed analysis of the sectoral resilience requirements in Bhutan and Tonga.

➔ Impact

The methodology was adopted by additional countries, including Ghana, and attracted the attention of development finance institutions including the European Bank for Reconstruction and Development.

A Resilience standard was developed through the Global Methodology for Infrastructure Resilience Reviews.



CDRI Infrastructure Governance workshop, Bhutan

Cross Cutting Initiatives

Finance for Resilient Infrastructure Programme (FRIP)

■ Goal

To catalyze Finance for DRI.

A. Financial Risk Assessment Studies

▣ Action

- State-level assessment of fiscal risks due to disasters in critical infrastructure sectors were conducted covering four Indian states: Gujarat, Himachal Pradesh, Odisha and Tamil Nadu. The inception report was submitted in 2nd quarter of 2023, following which technical workshops were held in Himachal Pradesh & Tamil Nadu, along with consultations with Gujarat & Odisha. The methodology for risk modelling was sharpened based on technical consultation with experts and draft econometric analysis results and funding gap assessment reports for the four states were produced.
- National-level studies were begun covering four nations: Fiji, India, Mauritius and Nepal. The inception report for each was submitted in 2nd quarter of 2023, following which technical workshops were held in Fiji & Mauritius, along with consultations with Nepal. Based on data collation exercises and consultations draft econometric analysis results and funding gap assessment reports were produced for the four countries.

▣ Result

The recommendations from the studies will provide a disaster risk financing framework to guide finance and budgeting departments of national and sub-national Governments to uptake proactive Ex-Ante measures to ensure timely and adequate provisioning of finance to affected parties in the aftermath of a disaster for effective response, recovery, and reconstruction.

B. National Infrastructure Pipeline Study

▣ Action

In India, CDRI is contributing to appraising standard agreements and contractual documents for projects under India's national infrastructure pipeline to achieve disaster resilience goals. The inception report was submitted in October 2023, following which a roundtable discussion and multi-ministerial technical workshop were held. Simultaneously, the approach and methodology for a cost benefit analysis tool was sharpened based on technical consultation with experts.

Result

A cost-benefit analysis tool was prepared that can be used by different stakeholders (project developers, regulators, and financiers) to assess the business case for various suggested resilience measures across the project lifecycle.

Impact

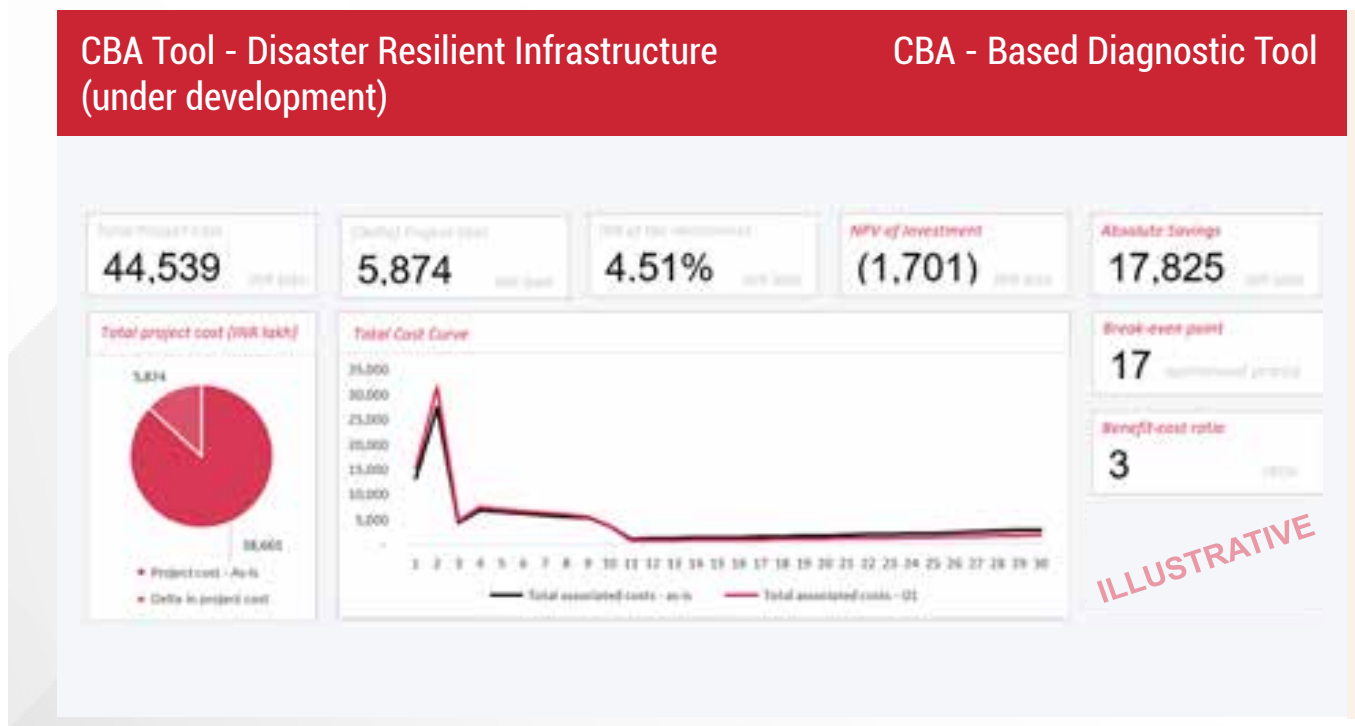
Analysis from the cost-benefit analysis tool is guiding a review of representative projects from the three key sectoral infrastructure Ministries of India (Roads, Railways & Power) contractual documents (Including MCAs and SBDs).

CBA tool – Dashboard

It showcases key financial indicators to determine the incorporation of resilience measures

- NPV of all future cashflows
- Absolute savings on recovery/reconstruction needs for incorporation of resilience measures
- Break-even point for additional investment
- Cost-benefit ratio

Illustrative Dashboards





04

The Secretariat

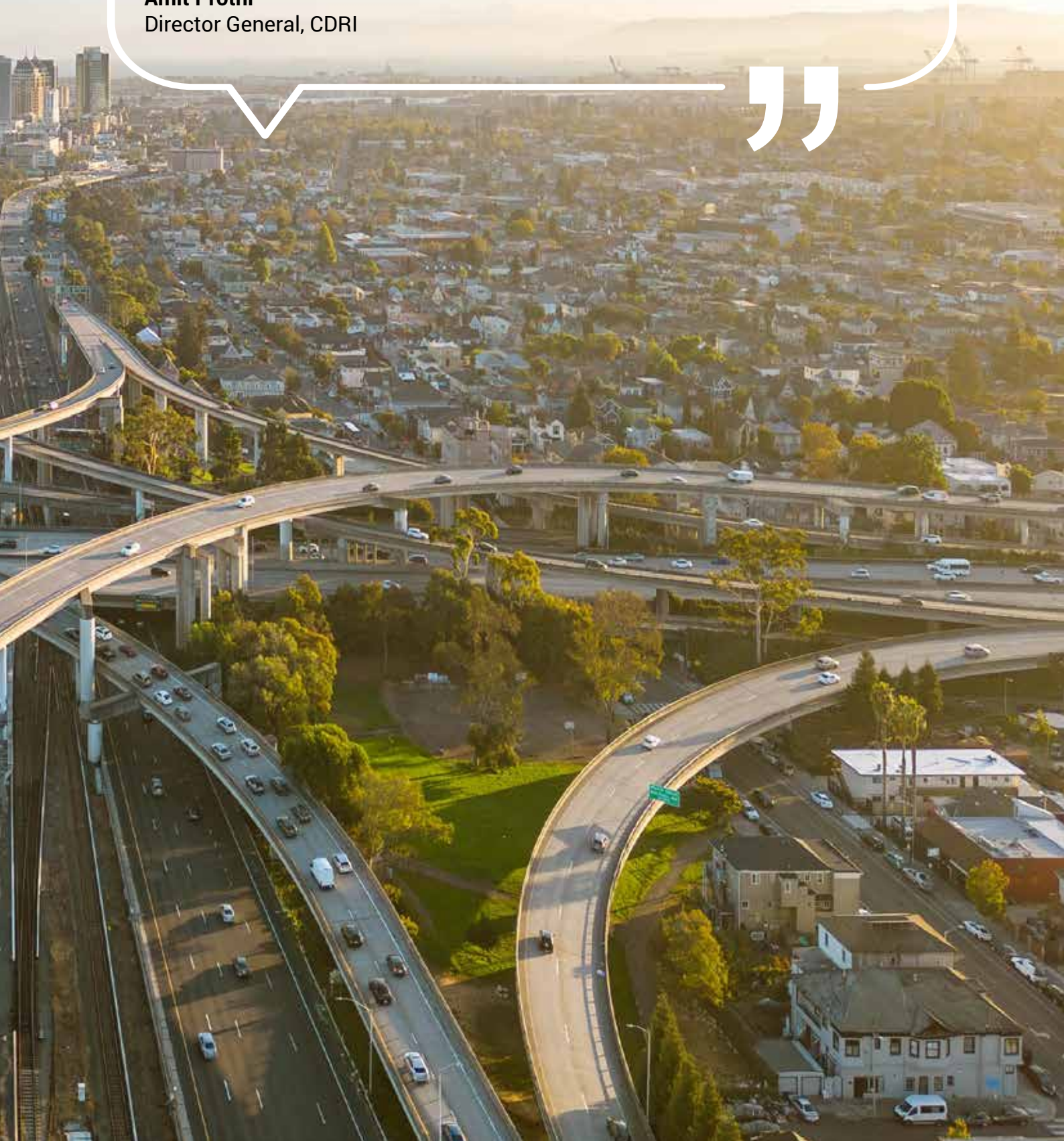
“

Over the long term, investment in resilience will pay for itself and more. We need to script a different future for our infrastructure systems.

Amit Prothi

Director General, CDRI

”



Governance

The governance arrangement of the Coalition comprises of three principal bodies: the Governing Council, the Executive Committee, and the Secretariat.

The Governing Council

Held annually, the Governing Council (GC) is the highest policy-making body of CDRI and comprises all Members of the Coalition. The Governing Council has two Co-chairs. India is the permanent Co-chair. The USA, represented by USAID holds the second, rotating Co-chair for the period of 2022-24. The fourth Governing Council meeting was held in April 2023 in New Delhi.



CDRI Governing Council meeting, New Delhi, India

The Executive Committee

Comprising of 10 Members, the Executive Committee is the managerial body of CDRI that oversees the implementation of the decisions of the Governing Council.

Representatives from notional constituencies of the Governing Council constitute the Executive Committee. The Executive Committee convenes biannually, and on a day-to-day basis it manages the programmatic work and decisions of the Coalition. Article 6 of the CDRI Charter states that the Executive Committee of CDRI must be reconstituted after a term of two years. During the financial year 2023-2024, two Executive Committee meetings were held in August 2023 and March 2024.

Employees

Located in New Delhi, the CDRI Secretariat is headed by a Director General.

At the end of 2023-24 year, CDRI had a workforce of 63, including five personnel on secondment from USAID (via Miyamoto International), and one from France.



ICDRI 2023, New Delhi, India

“ Resilience should not be a national/geographical aspect but a human aspect. No language of resilience is required; what is required is building resilience in actions. ”

Eric Garcetti
United States Ambassador to the Republic of India

“ Infrastructure needs to be built to be resilient to achieve the targets under the Sendai Framework. Ensuring resilient infrastructure will be one of the most important actions for protecting lives and livelihoods. ”

Mami Mizutori
Special Representative of the United Nations Secretary-General for Disaster Risk Reduction, and Head of UNDRR

Transition to an International Organization

The Government of India, through its Cabinet, officially recognized CDRI as an "International Organization (IO)" on 29 June 2022 and signed a Headquarters Agreement (HQA) on 22 August 2022, in New Delhi. Subsequently, the Government of India approved the ratification through its cabinet in June 2023. In August 2023, it was approved by the President of India. Subsequently, the Ministry of External Affairs, Government of India issued a Gazette Notification dated, 11th January 2024, recognizing CDRI as an International Organization and providing it the necessary privileges and immunities as per the United Nations (Privileges and Immunities) Act, 1947 (46 of 1947).


सत्यमेव जयते

भारत का राजपत्र The Gazette of India

सी.जी.-डी.एल.-अ.-02022024-251728
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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
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नई दिल्ली, शुक्रवार, फरवरी 2, 2024/माघ 13, 1945

No. 392]

NEW DELHI, FRIDAY, FEBRUARY 2, 2024/MAGHA 13, 1945

MINISTRY OF EXTERNAL AFFAIRS

NOTIFICATION

New Delhi, the 11th January, 2024

S.O. 416(E).—Whereas, the Government of India signed the Headquarters Agreement for establishing the Coalition for Disaster Resilient Infrastructure (hereinafter referred to as CDRI) in India on 22nd August, 2022;

And whereas, Article X of the Headquarters Agreement provides for privileges and immunities to CDRI, its representatives and officials;

And whereas, the Central Government considers it expedient to extend the necessary privileges and immunities provided under the United Nations (Privileges and Immunities) Act, 1947 (46 of 1947) to CDRI, its representatives and officials;

Now, therefore, in exercise of the powers conferred by section 3 of the United Nations (Privileges and Immunities) Act, 1947 (46 of 1947), the Central Government hereby declares that the provisions of section 1 of Article I, sections 2,3,4,5,6,7 and section 8 of Article II, section 9 of Article III and clauses (a), (b), (c), (d) and (e) of section 18 and section 20 of Article V and clauses (a), (b), (c), (d), (e) and (f) of section 22 and section 23 of Article VI of the Schedule to the said Act shall apply, *mutatis mutandis*, to CDRI, its representatives and officials.

[F.No. D-II/451/16(3)/2021]

ANSHUMAN GAUR, Jt. Secy.

Human Resources

■ Goal

To integrate international expertise and enhance the CDRI's capacity to lead global efforts in building disaster-resilient infrastructure.

■ Action

CDRI further strengthened its leadership by hiring international roles within the Senior Leadership team, thereby bolstering its capacity to address global infrastructure challenges.

Internal training and capacity development initiatives were undertaken including on Gender, Equality, and Social Inclusion (GESI), Collaborating, Learning and Adapting (CLA), Project Management, Monitoring, Evaluation and Learning (MEL), IRAF MPTF, sessions on Key Result Areas (KRAs), and My (individual staff) Learning Plan development.



Gender, Equality, and Social Inclusion training workshop, CDRI HQ

➔ Result

The emphasis on international recruitment has delivered several key benefits, including enhanced expertise; a more global perspectives; and increased understanding of global infrastructure challenges, leading to more nuanced and effective strategies; and, strengthened networks.

➔ Impact

The Secretariat has built an integrated, globally competent workforce fostering innovation and competitiveness to meet organizational needs and enhance diversity.

05

Financial Statement



Financial Statement, FY 2023-2024

During FY 2023-24, the Coalition for Disaster Resilient Infrastructure (CDRI) has been supported by the Government of India (GoI). Contributions from the European Union (US\$ 3 million) and the United Kingdom (US\$ 1.32 million) were made in 2023 to the Infrastructure Resilience Accelerator Fund (IRAF) under the CDRI Multi-Partner Trust Fund, managed by the United Nations Multi-Partner Trust Fund Office (UN MPTFO) in New York and hosted by the UNDP Crisis Bureau Office in Geneva.

The Government of India sanctioned a grant of INR 480 crores (approximately US\$ 57.60 million) for CDRI's operational and programme activities over five years, from 2019-20 to 2023-24. This support has been further extended till FY 2026-27. The Ministry of Home Affairs, GoI, remains the principal donor to the CDRI Secretariat in the FY 2023-24.

In FY 2023-24, CDRI incurred total expenses of INR 47,99,22,266 (approximately US\$ 5.76 million). Approx. 82% of this expenditure was incurred towards the achievement of the programmatic activities of CDRI and the remaining 18% was allocated towards Secretariat Operations & Management including Institutional Media & Communications.

Particulars	Amount	
	(INR)	(US\$)
Opening balance of the unutilized grant (As at 1st April 2023)	58,18,87,694	6,982,094
Receipts		
Grants Received	50,00,00,000	5,999,520
Interest / Other income received	1,78,22,045	213,847
Total Receipts (Opening Balance + Receipts)	109,97,09,739	13,195,461
Utilization		
For Program Activities during the year 2023-24	39,38,45,609	4,725,769
For Secretariat Operations & Administration	8,60,76,657	1,032,837
Total Fund Utilization	47,99,22,266	5,758,606
Closing unutilized grant balance with CDRI (As at 31st March 2024)	61,97,87,473	7,436,855

06

In the News



The New York Times
A Calamitous Flood Shows the Dangers Lurking in Melting Glaciers

Business Standard
Climate risk turns focus on need for resilient infrastructure

Forbes
Building Resilience Amid Climate Extremities

MONGABAY
The road to road resilience is paved with mindful construction and design, say experts

The Indian EXPRESS
Steps to build disaster resilience in its critical infrastructure

CDRI inks deal with govt; to be global, independent body

THE TIMES OF INDIA
Climate change causing infra sector loss of \$850bn a year globally: Report

Hindustan Times
CDRI launches \$2.5 million to support cities for climate resilience

INDIA TODAY
US hands baton to France as disaster-resilient infra talks move ahead

APN NEWS
The Two-Day International Conference On Disaster Resilient Infrastructure (CDRI) 2023 Wraps Up With A Call For Solutions On Delivering Resilient And Inclusive Infrastructure

FINANCIAL EXPRESS
Climate-induced damage costs globe infrastructure over \$300 billion annually, says CDRI report

Speaking about CDRI, PK Mishra, Principal Secretary to the Prime Minister, Government of India remarked, "Disaster resilience is no longer a niche subject. It has come to the centre stage of the global and national development discourse. While we want to facilitate north-south, south-south, north-north exchange, a large part of the infrastructure services will have to be delivered in the south. Therefore, in our search for solutions, we must focus on affordability, scalability and sustainability for emerging economies."

Nature, disasters have no border Modi
By Jayashree Nandi, New Delhi
Natural disasters are becoming more frequent and severe, and need to be addressed with increased focus on disaster resilient infrastructure, Prime Minister Narendra Modi on Wednesday said while highlighting the human impact of these disasters.

ThePrint
CDRI announces Infrastructure Resilience Acceleration Fund at COP27, gets USD 50 million in financial commitments

DH
120 countries push for investments in disaster and climate resilient infra

G20
2023 INDIA



In Conversation With Amit Prothi | CDRI Aligns With G20 Disaster Risk Reduction Goals Ahead of Summit

INDIA TODAY

G20: Youth from Latin American countries at CDRI to discuss disaster risk reduction

Prime Minister Narendra Modi has spearheaded the formation of the Coalition for Disaster Resilient Infrastructure (CDRI), which focuses on resilient infrastructure that can withstand and recover from the impacts of natural disasters.



A 35-member team from Brazil and other Latin American countries visited the Coalition for Disaster Resilient Infrastructure (CDRI) under a G20 Disaster Risk Reduction Working Group initiative, 'Troika Youth for Disaster Risk Reduction and Disaster Resilient Infrastructure'.

DownToEarth

G20 Summit: New Delhi Leaders' Declaration adopted with consensus on various environmental goals



Akhil Srivastava
 Published on: 02 Sep 2023, 2:58 PM

The members supported the United Nations' initiatives such as the Global Platform for DRR and the Coalition for Disaster Resilient Infrastructure in "furtherance of such collaboration and sharing".

THE TIMES OF INDIA

How India became a model for globe in tackling natural disasters

Pradeep Thakur / TNN / Updated: Jul 1, 2023, 05:33 IST



This year, during India's presidency of G20, CDRI has been included in the working group deliberations. It has already been partnering with small island states as part of the Infrastructure for Resilient Island States initiative.

Last year, the four-nation Quad grouping - comprising the US, Australia, India and Japan - announced a corpus of \$50 billion for building "need-based sustainable infrastructure" in the Indo-Pacific in close coordination with CDRI.

INDIA TODAY

How vulnerable is India's critical infrastructure to disasters? CDRI to release key report at G20

The formation of the CDRI was led by Prime Minister Narendra Modi in a bid to focus on a resilient infrastructure that can withstand and recover quickly from natural disasters.



The biennial report will deal with five different aspects analysing global risk and resilience. (Photo: Getty)

The biennial report will deal with five different aspects analysing global risk and resilience assessment of infrastructure systems to develop the Global Infrastructure Risk Model and Resilience Index (GIRI).

bt Business Today

CDRI launches Infrastructure Resilience Academic eXchange, to bridge talent gap for building disaster-resilient infrastructure

Under IRAX, CDRI has also teamed up with the Adaptation Research Alliance (ARA) and signed a 'Statement of Intent' for undertaking collaborative efforts for a 3-year period on action-oriented research, policy advocacy and in-country knowledge-building programmes for DRI.



THE ECONOMIC TIMES

India's Coalition for Disaster Resilient Infrastructure annual meet to scale up potential solutions for resilient world

By Dipanjan Roy Chaudhury, ET Bureau • Last Updated: Mar 23, 2023, 09:22:00 PM IST

India's ambitious Coalition for Disaster Resilient Infrastructure (CDRI) will host the fifth edition of 'International Conference on Disaster Resilient Infrastructure' (ICDRI 2023) on April 4-5 with an aim to scale up potential solutions for a more resilient world and facilitating disaster and climate adaptation objectives.



The theme of the conference is Delivering Resilient and Inclusive Infrastructure: Pathways for Risk-Informed Systems, Practices and Investments.

ICDRI 2023 aims to convene Member countries, private sector, organizations, institutions, infrastructure actors, and stakeholders to strengthen the global discourse on disaster and climate-resilient infrastructure.

Business Standard

Airports should develop resilience strategy to mitigate climate risk: Study

Airports should conduct periodic vulnerability assessments and develop a resilience strategy as well as collaborate with insurers to mitigate climate risk, according to a CDRI study



IndiaToday @IndiaToday

"Risk is changing because of development pattern...also because #climatechange..." points out @AmitProthi on 'cyclone resilient' infra

#CycloneBiparjoy #Gujarat #Newstrack #rahulkanwal
Full show: rb.gy/sxrvj

Kalkine MEDIA

Coalition for Disaster Resilient Infrastructure hosts Conference on Resilient Infrastructure-Americas

October 31, 2023 04:10 AM AEDT | By EIN Presswire

CDRI, a coalition of 41 countries and organizations, businesses, and academia, brings 'ICDRI Americas' to identify solutions for resilient infrastructure.

WASHINGTON, D.C., UNITED STATES, October 30, 2023 /EINPresswire.com/ -- Today in Washington, D.C., the Coalition for Disaster Resilient Infrastructure (CDRI) kicked off its first regional conference, the International Conference on Disaster Resilient Infrastructure (ICDRI) - Americas, in partnership with the U.S. Agency for International Development (USAID) and Miyamoto International. With a focus on accelerating investments in and financing for disaster and climate resilient infrastructure in the Americas region, the conference will identify emerging regional priorities and lay the groundwork for future collaboration.



FINANCIAL EXPRESS

ICDRI Americas Conference: Advancing disaster resilient infrastructure in the region

Written by FE Online, October 31, 2023 14:24 IST

Current estimates highlight assets at risk due to disasters in Latin America represent approximately one percent of the GDP. (FB)

The Coalition for Disaster Resilient Infrastructure (CDRI) kicked off its first regional conference, the International Conference on Disaster Resilient Infrastructure (ICDRI) – Americas, in partnership with the US Agency for International Development (USAID) and Miyamoto International, in Washington, D.C., on Monday (Oct 30).

With a focus on accelerating investments in and financing for disaster and climate resilient infrastructure in the Americas region, the conference will identify emerging regional priorities and lay the groundwork for future collaboration.

Sessions throughout the one-day Conference will focus on mobilizing finance for disaster resilient infrastructure, developing solutions for the unique challenges faced by small-island states, and forging partnerships with academic institutions to galvanize the next generation of infrastructure professionals.



LIVE | Tackling Climate Change | COP28 Starts Tomorrow In Dubai
CNBC TV18



GIRI IS A GLOBAL INFRASTRUCTURE RISK MODEL & RESILIENCE INDEX (GIRI)



CDRI Unveils Groundbreaking GIRI Platform for Disaster-Resilient Infrastructure at COP28

December 8, 2023 by CS News Network

CDRI's GIRI Platform Marks a Milestone in Infrastructure Risk Modeling and Resilience Planning

Today, The Coalition for Disaster Resilient Infrastructure (CDRI), based in New Delhi, unveiled its groundbreaking GIRI platform at COP28 in Dubai. GIRI stands as the first publicly accessible, fully probabilistic risk model for infrastructure assets, addressing major geological and climate-related hazards.



Exclusive conversation with Amit Prothi, Director General of CDRI | DD India



Loss and Damage Fund opens doors to assessing climate risk to infrastructure

Updated - December 11, 2023 11:01 pm IST - NEW DELHI



The establishment of funds such as the Loss and Damage (L&D) Fund, which at COP28 saw initial commitments worth nearly \$750 million, opens up avenues for countries to assess risk and incorporate disaster-resilient practices when developing infrastructure projects, Amit Prothi, Director-General, Coalition for Disaster Resilient Infrastructure (CDRI)

THE TIMES OF INDIA

Climate change causing infra sector loss of \$850bn a year globally: Report

'70% Of Loss Tied To Climate-Related Disasters Like Cyclones, Floods, Storms'

New Delhi: Climate change has led to an annual average global loss in infrastructure worth \$850 billion, according to a report released by the Coalition for Disaster Resilient Infrastructure (CDRI). The report of the 4000 project estimated year in perspective problems faced by countries, including the poor infrastructure systems.

The statistical report has estimated that about 41% of the global value of infrastructure assets are concentrated in high-income countries. The report also notes that the global value of infrastructure assets is projected to increase to \$1.5 trillion by 2050, with the highest growth in low-income countries.

The report has estimated that infrastructure assets worth \$850 billion are lost annually to climate change, with 70% of the loss tied to climate-related disasters like cyclones, floods, storms, and droughts.

The report has estimated that infrastructure assets worth \$850 billion are lost annually to climate change, with 70% of the loss tied to climate-related disasters like cyclones, floods, storms, and droughts.

Global GDP growth at risk due to climate change: Report

By Jayashree Nandi

Oct 05, 2023 09:38 AM IST

The global average annual loss in infrastructure sectors and buildings is now in a range of \$732- \$845 billion taking into account climate change and that around 14% of 2021- 2022 global GDP growth is at risk, a Coalition for Disaster Resilient Infrastructure (CDRI) report has said.

Climate change damage to infrastructure poses 'huge' financial risks



Shaker Iqbal

Published: October 04, 2023

Share

Prothi said little money has flowed into preparing infrastructure for the impacts of climate change because it is not an area that is well understood by financial markets.

"(The) CDRI is working with countries to provide them with technical assistance to create a pipeline of adaptation projects that can become investable for the private sector," he added

The New York Times

A Calamitous Flood Shows the Dangers Lurking in Melting Glaciers

A glacial lake's overflow swept away more than 100 people in the Himalayan state of Sikkim in India. Climate change is aggravating the threat of such phenomena.

The Coalition for Disaster Resilient Infrastructure, a New Delhi-based international study group, calculates that 70 percent of the world's average annual loss in infrastructure, worth in total about \$800 billion between 2021 and 2022, was the result of climate-related hazards.

Moreover, the report concludes, "the countries that cannot afford to lose their existing infrastructure have the highest risk." Annual infrastructure losses faced by high-income countries are an average of 0.14 percent of G.D.P., whereas lower-middle-income countries, like India, face losses worth 0.41 percent of theirs. The burden is especially punishing in a Himalayan country like Bhutan, next door to Sikkim and also dependent on hydropower, which stands to see its costs grow by nearly 50 percent.

\$845B in Annual Losses Shows Urgent Need for Resilient Infrastructure: Report

October 11, 2023 Reading time: 7 minutes

Primary Author: Gayo Taylor

"High-income countries could witness an increase in average annual loss by 11% due to climate change; the figure could increase by 12% to 22% in middle-income and 33% in low-income countries," note the authors [pdf] of the inaugural report released by the Coalition for Disaster Resilient Infrastructure (CDRI).

The combined risk makes infrastructure resilience "a critical global challenge," the authors say [pdf]. But investor hesitation and knowledge gaps remain major obstacles.

Given the harrowing infrastructure losses already taking place, "new infrastructure investments without strengthened resilience are analogous to pouring water into a bamboo basket," say the authors. Nature-based Infrastructure Solutions (NbIS) loom large in their discussion of the pathways to resilient infrastructure.

Natural Hazards and Earth System Sciences



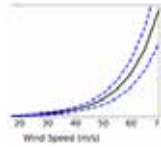
Articles / Volume 23, issue 5 / NHESS, 23, 1665–1683, 2023

Probabilistic and machine learning methods for uncertainty quantification in power outage prediction due to extreme events

Prateek Arora and Luis Ceferino

Strong hurricane winds damage power grids and cause cascading power failures.

Statistical and machine learning models have been proposed to predict the extent of power disruptions due to hurricanes. Existing outage models use inputs including power system information, environmental parameters, and demographic parameters. This paper reviews the existing power outage models, highlighting their strengths and limitations. Existing models were developed and validated with data from a few utility companies and regions, limiting the extent of their applicability across geographies and hurricane events.



CDRI Advances Resilience: 11 Infrastructure Projects Awarded Across 13 Vulnerable Island States

Written by FE Online, November 1, 2023 08:41 IST



The formal announcement of the awarded projects took place during CDRI's inaugural regional conference, ICDDRI Americas. (PTI)

The Coalition for Disaster Resilient Infrastructure (CDRI) has recently recognized 11 projects spanning 13 Small Island Developing States (SIDS), as part of their unwavering commitment to bolster the resilience of infrastructure systems in the face of disasters and climate impacts. These projects, sanctioned within the framework of CDRI's Infrastructure for Resilient Island States (IRIS) initiative, are poised to concentrate on various essential aspects, including the development of a Multi-Hazard Early Warning System, the formulation of a Retrofitting Housing Strategy, the enhancement of Climate-Resilient Transport Infrastructure, and the experimental implementation of a Disaster Risk Insurance Scheme, among other significant endeavours.

CDRI receives 50 EoIs for Infrastructure Resilient Island States

Updated - July 24, 2023 at 09:20 PM. | Chennai



Amit Prothi, Director General, CDRI

IRIS steering committee will meet in Chennai this week to select 10-12 proposals

By T E Raja Simhan

The Coalition for Disaster Resilient Infrastructure (CDRI) has got nearly 50 Expression of Interest (EoI) for its first 'Call for Proposals' for Infrastructure Resilient Island

States (IRIS). This is a CDRI strategic initiative to support infrastructure resilience in Small Island Developing States (SIDS), said Amit Prothi, Director General, CDRI.

CDRI is a partnership of national governments, UN agencies and programmes, multilateral development banks and financing mechanisms, the private sector and knowledge institution.

A win-win for Barbados and global coalition

written by Dawne Parris Updated by Sasha Mehter 21/02/2024



Amit Prothi, Director General of the Coalition for Disaster Resilient Infrastructure.

Not only would Barbados benefit from membership of the Coalition for Disaster Resilient Infrastructure (CDRI) – a multi-stakeholder global partnership that seeks to build resilient infrastructure in participating countries – but Prime Minister Mia Mottley's global recognition as a climate change leader could encourage other Caribbean nations to follow the island's lead.

Director General of the New Delhi-based CDRI Amit Prothi sees it as a win-win situation for Barbados and the multi-stakeholder coalition. Barbados is good for CDRI and CDRI is good for Barbados, he suggested in an interview with Barbados TODAY following a presentation on CDRI to 35 journalists from Latin America and the Caribbean who are on a tour of India.

"You have a prime minister who talks about [this kind of thing] on the global stage. She's already got a global presence, so in a way, it makes sense for Barbados to be part [of the CDRI]," he said "Barbados has had its challenges. Island states are amongst the most vulnerable – that's what she [Mottley] says – and the report that I shared [in the presentation] is also saying the same thing."

Indian airports increasingly vulnerable to natural hazards

Indian airports increasingly vulnerable to natural hazards, regular assessments missing CDRI report suggests preventive methods to safeguard existing and proposed airports against extreme weather events.

ANI PR 02 November, 2023 05:02 pm IST

It comes as no surprise then that a recent report found the vulnerability of India's airports to be quite high. "Indian airports exhibit a higher Airport Exposure Index compared to other participating airports from across the world," stated the 'Global Study on Disaster Resilience of Airports' brought out by the Coalition for Disaster Resilient Infrastructure (CDRI).



Plan afoot to construct all-weather roads in Himachal to bolster disaster preparedness

By Gaurav Bisht, Shimla | Feb 20, 2024 04:58 PM IST



Work begins to map the road linking Himachal's Vidhan Sabha complex to Annandale helipad in Shimla. (HT File)

Report on ways to improve Himachal Vidhan Sabha-Anadale road to be submitted soon; road map likely to replicated across state


Nine months after torrential rains triggered devastating floods that left behind a trail of destruction in the state, the Himachal government has taken the first step towards a proactive approach to disaster preparedness. Partnering with the Coalition for Disaster Resilient Infrastructure (CDRI), the government aims to construct all-weather disaster-resilient roads in the vulnerable regions.










Coalition for Disaster Resilient Infrastructure

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