CDRI
Coalition for Disaster Resilient Infrastructure

CDRI Position Paper

CDRI Position to the UNFCCC's sixty-fourth sessions of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation (SB 64)

8-18 June 2026

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Core message

Disaster Resilient Infrastructure (DRI) is one of the smartest investments we can make, and should be integrated across the agenda, discussions, and outcomes of SB 64 as a practical, measurable, and high-return pathway for delivering adaptation, protecting development gains, sustaining essential services, and advancing resilience in line with the Paris Agreement.

Introduction

As climate change increases the frequency and intensity of hazards, interconnected infrastructure systems across transport, energy, water, telecom, and health face growing systemic risks. These risks can erode development gains, deepen inequality, increase fiscal stress, and weaken state capacity.

CDRI is a global coalition committed to strengthening infrastructure resilience against climate and disaster risks. With 56 Member Countries and 12 Member Organizations, it includes national governments, international bodies, and businesses collaborating to exchange knowledge, drive research, and invest in DRI. Members gain access to global expertise, funding, technical support, research opportunities, innovative solutions, and international best practices.

CDRI's mission is to drive investments of up to $10 trillion in new and existing infrastructure to build resilience to natural hazards and climate change by 2050. By enhancing capacity, informing policy, and strengthening planning and management, this initiative will improve environmental quality, protect livelihoods, and elevate the well-being of more than 3 billion people worldwide.

1. Purpose

This position paper sets out CDRI's perspective on how Parties at SB 64 can incorporate DRI into the agenda, processes, and outcomes of negotiations, and how DRI can safeguard the progress of the implementation of the Paris Agreement.

DRI is one of the smartest investments that countries can make to translate climate commitments into practical resilience outcomes. Infrastructure resilience determines whether communities receive water, electricity, transport, connectivity, health, education, and food-related services during and after climate-related shocks.

Where infrastructure is resilient, climate action and adaptation become visible in the continuity of services, the protection of livelihoods, and the reduction of economic losses despite climate extremes.

Why DRI is important

- **The macroeconomic case is compelling -** Economic modelling for 8 diverse countries shows that the indirect economic costs associated with infrastructure failures due to disasters are, on average, 7.4 times the direct damage to infrastructure assets.
- **Recovery speed matters -** Economic modelling shows that faster and comprehensive reconstruction substantially reduces future GDP losses, underscoring the importance of preparedness, dedicated finance for response, institutional readiness and resilient reconstruction standards. DRI should be recognized as an ex-ante investment pathway in the Loss & Damage Fund and the Santiago Network as the primary mechanism for reducing the losses they seek to address.
- **Africa and vulnerable geographies stand to gain a major resilience dividend -** The Global Infrastructure Risk Model and Resilience Index (GIRI) (https://giri.unepgrid.ch/) estimates significant average annual losses to infrastructure and buildings in Africa, with power, roads, telecommunications, water among the sectors exposed to recurrent repair and reconstruction costs.
- **Agriculture and food security are infrastructure dependent -** The resilience of irrigation, farm-to-market roads, energy for processing, storage, cold chains, and communications is central to sustaining agricultural production and food systems under climate stress.
- **DRI leverages innovations in technology –** Technologies such as early warning systems, risk analytics, and data platforms can enhance the data value chain, support timely decision-making, and reinforce system robustness. To maximize their effectiveness and ensure durable climate outcomes, the development, transfer, deployment, and governance of such technologies should be guided by the principles of disaster resilient infrastructure.
- **Risk-informed resilience makes adaptation actions measurable -** GIRI (https://giri.unepgrid.ch/) provides comparable financial risk metrics, including average annual loss and probable maximum loss, that can help Parties identify, visualize, and prioritize infrastructure risks across sectors, territories and hazards.

2. Agenda-Specific CDRI Positions and Recommendations

2.1 Research and Systematic Observation (RSO) (Item No.3 on SBSTA/SBI 64 Provisional Agenda)

Critical infrastructure systems must be planned and constructed to withstand increasing risks. Climate observations, hydrometeorological data, asset-level exposure mapping, hazard modelling, risk analytics, and early-warning systems are therefore essential for resilient infrastructure design, operation, and maintenance.

The RSO agenda must be framed as a bridge between climate science and infrastructure decision-making, ensuring that observed and projected climate risks are translated into engineering standards, building codes, public procurement rules, asset registries, fiscal risk assessments, and anticipatory action systems.

This is particularly important for developing countries, where infrastructure deficits coincide with high climate risk exposure and limited fiscal space. Infrastructure resilience should be recognized as a practical application of climate data, and support provided to strengthen infrastructure risk observatories, open data systems and decision-support tools to assist Parties.

CDRI recommends:

- Parties integrate infrastructure risk observation into the Research Dialogue and invite the Research Dialogue to examine how climate observations, hazard data, asset registers, and infrastructure loss data can be combined to inform infrastructure resilience decisions
- Parties should promote common infrastructure risk metrics and encourage the use of comparable risk metrics, including average annual loss, probable maximum loss, service disruption duration, and recovery time, to support evidence-based prioritization.
- Parties should bridge climate data with infrastructure systems and encourage collaboration between meteorological and hydrological agencies, geological agencies, infrastructure ministries, planning authorities, utilities, and disaster risk management institutions.
- The UNFCCC process should support LDCs, SIDS, and Low- and Middle-Income Countries (LMICs) with downscaled assessments and recognize the need for technical support for localized, national, and subnational infrastructure risk assessments that can inform National Adaptation Plans (NAPs), NDCs, Biennial Transparency Reports (BTRs), and investment pipelines.
- Parties invite expert organizations to contribute to systematic observation and research agenda. CDRI, WMO, UNDRR, UNEP, UNDP, FAO, MDBs, and other relevant institutions should be invited to support methodologies, provide case studies and capacity-building on infrastructure risk assessment.

2.2 Matters Relating to Adaptation (Item No. 4 on SBSTA/SBI Provisional Agenda)

The UAE Framework for Global Climate Resilience under the Global Goal on Adaptation (GGA) recognizes infrastructure and human settlements as a core thematic area. DRI should be the operational link between adaptation planning and adaptation delivery.

NAPs, adaptation communications, BTRs, Adaptation Committee work, the Nairobi Work Programme (NWP), the Baku Adaptation Roadmap, and adaptation finance processes all require credible ways to move from vulnerability assessments to bankable, measurable, and locally relevant resilience investments.

Adaptation negotiations would benefit from moving beyond generic references to resilience and by systematically integrating infrastructure risk-screening, resilient public investment planning, maintenance finance, local-level infrastructure resilience and post-disaster recovery standards into adaptation implementation and reporting.

CDRI calls on Parties to:

- Integrate DRI into the operationalization of GGA indicators and ensure that indicator metadata and methodologies capture infrastructure resilience, continuity of essential services, resilient reconstruction, risk-informed planning, and protection of vulnerable communities.
- Use the Baku Adaptation Road Map to advance infrastructure resilience and ensure technical papers under the Road Map should include DRI as a cross-sectoral implementation pathway across water, energy, transport, health, education, telecommunications, and food systems.
- Augment the Nairobi Work Programme (NWP) as a DRI knowledge-to-action platform to mobilize its partner network to curate DRI knowledge, methodologies, replicable case studies, good practices, and practical tools tailored to countries and communities.
- Improve adaptation reporting through a 'report once, use many times' approach by encouraging reporting of progress through NAPs, BTRs, NDC updates, and adaptation communications in a way that avoids duplication and strengthens coherence.
- Link adaptation finance to essential service continuity by tracking whether funded interventions improve the continuity, reliability, and recoverability of essential infrastructure services.

2.3 United Arab Emirates Just Transition Work Programme (Item No. 6 on SBSTA/SBI64 Provisional Agenda)

Operationalization and review of the UAE Just Transition Programme, and any future Just Transition Mechanism, should integrate DRI as a core implementation pillar. This means that transition plans are assessed on both emissions and employment impacts but also for whether the infrastructure underpinning new livelihoods, industries, and public services can withstand floods, heat, cyclones, droughts, and cascading failures.

A just transition that does not consider disaster-resilience of its critical infrastructure, risks becoming unjust in practice because the poorest and marginalized communities will continue to bear the highest cost of service disruption, asset loss, and delayed recovery.

CDRI calls on Parties to:

- Include DRI in the operational design of the Just Transition Mechanism (JTM) to support countries in identifying infrastructure vulnerabilities that could undermine Just Transition pathways, particularly in climate-exposed sectors (the Global Infrastructure Risk Model and Resilience Index [https://giri.unepgrid.ch/]) can be used to guide investment prioritization.
- Protect transition investments from climate and disaster risks by ensuring investments in high-risk, low-income, and climate-vulnerable communities and fragile geographies. Investments should be designed, financed, and maintained to enhance and ensure climate resilience.
- Use DRI to protect livelihoods and essential services by including indicators on the reliability of infrastructure systems and services that sustain jobs, small enterprises, food systems, health, and education.
- Support countries to avoid maladaptive pathways by encouraging climate-resilient design standards and lifecycle risk assessment in transition-related investment pipelines. Parties should also consider Nature-based Solutions.
- Co-design infrastructure planning with related ministries such as those responsible for planning as well as financing. Engage them in dialogues to explore infrastructure resilience from a whole government and systems approach.

2.4 Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security (Item No. 5 on SBSTA/SBI 64 Provisional Agenda)

DRI is central to global and national agriculture and food security. Disasters can cause substantial losses across agriculture and food systems and threaten food security through both direct production losses and disruption of supporting systems including interconnected critical infrastructure systems.

Agriculture negotiations under the Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security should consider and integrate disaster-resilient agricultural infrastructure as an implementation priority.

CDRI calls on Parties to:

- Recognize agricultural infrastructure as part of climate-resilient food systems in conclusions that explicitly refer to irrigation, water management, rural roads, storage, cold chains, energy, and communications as adaptation priorities for agriculture and food security.
- Use risk assessment to identify food-system bottlenecks by assessing infrastructure nodes whose failure would disrupt production, processing, transport, market access, and food distribution.
- Populate the Sharm el-Sheikh online portal with DRI case studies and include examples of good practices and replicable case studies on resilient irrigation infrastructure, climate-resilient rural roads, flood-resilient storage, decentralized renewable energy for processing, and climate resilient digital services for farmers.
- Link agriculture adaptation finance with infrastructure resilience by directing support to interventions that reduce climate-related disruption across agricultural value chains, particularly for smallholder farmers, pastoralists, women, and vulnerable communities.
- Promote nature-based and hybrid infrastructure by encouraging ecosystem-based adaptation practices, such as watershed restoration, wetlands, mangroves, green-grey flood protection, and soil-water conservation, that complement resilient agricultural infrastructure.

2.5 Technology Development and Transfer (Item No. 9 on SBSTA/SBI 64 Provisional Agenda)

Climate smart adaptation technologies such as early-warning systems and water-management tools require supportive physical, institutional, and data systems. Mitigation technologies equally must be designed to withstand extreme weather if they are to deliver durable emissions reductions.

Under Article 10 of the Paris Agreement and the Technology Framework, technology development and transfer should include resilience criteria so that transferred technologies are not only low-carbon or adaptive in design, but also durable, serviceable, locally usable, and protected against future climate hazards.

CDRI calls on Parties to:

- Prioritize DRI technologies in Technology Executive Committee (TEC) and Climate Technology Centre and Network (CTCN) work by supporting developing countries to identify, access, and deploy technologies that improve infrastructure risk

assessment, maintenance, service continuity, emergency response, and resilient reconstruction.

- Develop a DRI technology readiness approach by supporting Parties in their assessment of DRI technologies' readiness vis-à-vis governance, finance, data, institutional capacity, human skills, interoperability, and maintenance requirements.
- Strengthen low-tech and high-tech solutions together by promoting technology transfer that includes both advanced tools, and highly replicable practical solutions such as resilient materials, maintenance systems, local construction techniques, repair protocols, and nature-based approaches.
- Promote open, interoperable, and locally usable data systems by ensuring that the Technology Mechanism (TM) should help countries strengthen climate, hazard, asset, and service-disruption data in formats that infrastructure agencies and regional coalitions can use to find insights.
- Create a resilience technology pipeline so that the TEC and CTCN can support project concepts and technical assistance packages that connect technology needs assessments with DRI investment pipelines, standards, and capacity-building.

2.6 Enhanced Cooperation of Rio Conventions and Inclusiveness of International Expert Organizations (Item No.12 on SBSTA/SBI 64 Provisional Agenda)

An enhanced cooperation agenda should not remain limited to institutional coordination among Convention secretariats but should mobilize international expert organizations that can translate convention objectives into implementable, investment-ready solutions which parties can include in their nationally determined contributions (NDCs).

CDRI stands ready to support the UNFCCC efforts to enhance cooperation with international expert organizations and improved collaboration among the Rio Convention Secretariats. Infrastructure is one of the clearest points where climate action, biodiversity protection, land restoration, disaster risk reduction, and sustainable development converge.

Including CDRI would reinforce the technical comprehensiveness of cooperation among the UNFCCC, United Nations Convention on Biological Diversity (UNCBD), and United Nations Convention to Combat Desertification (UNCCD) by connecting policy ambition with asset-level practice. CDRI can further support Parties through evidence, tools, country engagement, capacity-building, and communities of practice on climate and disaster resilient infrastructure.

CDRI recommends SBSTA and SBI to:

- Encourage cooperation at the Rio Convention secretariats and expert organizations around cross-cutting priorities like resilient infrastructure assets and services, nature-based solutions, land-water-food systems, and resilient cities.
- Avoid fragmented reporting by linking disaster resilient infrastructure (DRI) relevant information across NAPs, NDCs, BTRs, national biodiversity strategies, land-degradation neutrality targets, and disaster risk reduction strategies. Most critically, parties should be encouraged to report disaster resilient infrastructure indicators across the already existing reporting instruments.
- Invite CDRI, UNDRR, WMO, FAO, UNEP, UNDP, MDBs, standards organizations and technical institutions to contribute methodologies, training, case studies, and investment guidance.
- Promote cross-convention of nature-based and hybrid infrastructure. Cooperation should support solutions that simultaneously reduce disaster risk, protect biodiversity, restore land, and enhance climate adaptation and mitigation outcomes.
- Support vulnerable countries with coherent capacity building. LDCs, SIDS, and other developing countries should receive coordinated technical support rather than parallel demands from multiple processes.

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2.7 Annexure: CDRI Submissions on Disaster Resilient Infrastructure (DRI) to UNFCCC Processes (January – May 2026)

Recent CDRI submissions to the UNFCCC have shown that recognizing DRI within existing negotiation workstreams would strengthen the Convention's contribution to climate resilience.

- **Just Transition:** CDRI emphasized that DRI is a prerequisite for a just transition because resilient infrastructure protects livelihoods, essential services, and fiscal stability (CDRI, 2026a). United Arab Emirates Just Transition Work Programme - on work to be undertaken under, as well as possible topics for the dialogues under, the work programme (Decision 3/CMA.5, para. 6) – 21 January 2026.

- **Global Goal on Adaptation (GGA):** CDRI called for DRI to be integrated into the GGA framework as a measurable operational pathway that converts commitments into tangible resilience outcomes (CDRI, 2026b). Global goal on adaptation - on the focus of the workshops and the technical paper under the Baku Adaptation roadmap. (FCCC/PA/CMA/2025/L.25, para 30) – 9 February 2026.

- **Article 2.1(c) and Article 9:** CDRI proposed aligning financial flows with climate-resilient development through DRI, dedicated exchanges on innovative instruments and cross-ministerial collaboration (CDRI, 2026c). Veredas Dialogue on the implementation of Article 2, paragraph 1(c), of the Paris Agreement and its complementarity with Article 9 of the Paris Agreement - on the organization of the Veredas Dialogue. (FCCC/PA/CMA/2025/L.11, para. 19) – 16 February 2026.

- **Agriculture and food security:** CDRI argued that resilient infrastructure is the backbone of agriculture and should be integrated into adaptation planning through risk modelling, finance and supply-chain management. Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security – information on activities in relation to the Sharm el-Sheikh joint work. (FCCC/SBI/2025/L.2, para. 16) – 8 March 2026.

- **Research Dialogue:** CDRI proposed that research and systematic observation be connected to infrastructure decision-making, cascading failure analysis and practical resilience standards. Eighteenth Meeting of the Research Dialogue - on possible themes for the eighteenth meeting of the research dialogue, to be held in conjunction with SBSTA 64 (FCCC/SBSTA/2025/4 page 10) – 13 March 2026.

- **Global Stocktake:** CDRI proposed that Parties must adopt DRI as a permanent implementation lens across all UNFCCC workstreams—including adaptation, finance, and loss and damage—by utilizing specific metrics and reporting categories to track whether climate commitments are translating into the actual protection of essential services and lifeline systems. United Arab Emirates dialogue - on implementing the global stocktake outcomes - on experience,

opportunities, challenges, barriers and needs as inputs to the UAE dialogue. (Decision 3/CMA.7, para 6) – 13 March 2026.

- **Adaptation reporting:** CDRI recommended synchronizing NAPs, BTRs, and other vehicles to measure cross-sectoral progress in DRI, finance traceability, and essential service continuity (CDRI, 2026f). Adaptation Committee: Recommendations on how to improve reporting on adaptation action and progress in the context of paragraph 45 of decision 2/CMA.5 (Decision 2/CMA.5, paragraph 45) – 31 March 2026.

- **Action for Climate Empowerment (ACE):** CDRI proposed that the 2026 Action for Climate Empowerment (ACE) Dialogue and Technical Workshop recognize DRI as a people-centric priority, utilizing its six pillars—from education and professional training to public participation—to protect the dignity, agency, and essential services of those most vulnerable to climate change. Action for Climate Empowerment - on matters to be addressed at the 2026 Dialogue on Action for Climate Empowerment and the associated technical workshop. (FCCC/SBI/2024/25, para. 123) - 13 March 2026.

- **Evolving needs of the Least Developed Countries in the context of midway review:** The Least Developed Countries Expert Group (LEG) should treat DRI as a first-order priority by embedding it into NAPs, bridging the massive adaptation finance gap through layered investment strategies, and recognizing resilient systems as the essential foundation for a just transition and long-term development in climate-vulnerable nations. Least Developed Countries Expert Group – on evolving needs of the least developed countries in the context of the upcoming midway point before the review of the mandate of the Group. (Decision 15/COP 30, para. 17) – 30 March 2026.

- **Cooperation with other international organizations – views on enhancing the inclusiveness of cooperation with other international organizations as well as on the cooperation with other Rio Conventions secretariats:** CDRI recommended that the UNFCCC and the Rio Conventions' Joint Liaison Group enhance inclusive cooperation by formalizing DRI as a priority synergistic theme and engaging specialized technical bodies as formal delivery partners to bridge the gap between global policy and practical implementation. Cooperation with other international organizations – views on enhancing the inclusiveness of cooperation with other international organizations as well as on the cooperation with other Rio Conventions secretariats (Report of COP 30, on agenda item 3(a)) – 01 May 2026.

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