TC Document

I. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	Infrastructure Resilient to Disasters
▪ TC Number:	RG-T4437
▪ Team Leader/Members:	Escovar Bernal, Maria Alejandra (CSD/RND) Team Leader; Dalaison Boichuk, Wilhelm Ivan (INE/INE) Alternate Team Leader; Porta Garcia, Raimon (VPS/ESG) Alternate Team Leader; Hori, Tsuneki (CSD/RND); Minoja, Livia (SCL/SCL); Leal Rosillo, Roberto (VPS/ESG); Suarez Vazquez, Gines (CSD/RND); Bonilla Merino Arturo Francisco (LEG/SGO); De Angelis, Gabriella (VPS/ESG); Morales Franco Ericka Marleny (CSD/RND); Grunwaldt, Alfred Hans (CSD/CCS); Valle Porrua, Yolanda (CSD/RND); Lacambra Ayuso, Sergio (CSD/RND); Zambrano Barreto, Adriana (VPS/ESG)
▪ Taxonomy:	Research and Dissemination
▪ Operation Supported by the TC:	N/A.
▪ Date of TC Abstract authorization:	23 Feb 2024.
▪ Beneficiary:	IDB and members countries
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Japan Special Fund(JSF)
▪ IDB Funding Requested:	US$800,000.00
▪ Local counterpart funding, if any:	US$0
▪ Disbursement period (which includes Execution period):	24 months
▪ Required start date:	July 15th, 2024
▪ Types of consultants:	Individuals and firms
▪ Prepared by Unit:	CSD/RND-Env, Rural Dev & Disaster Risk
▪ Unit of Disbursement Responsibility:	CSD/RND-Env, Rural Dev & Disaster Risk
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2020-2023:	Productivity and innovation; Social inclusion and equality

II. Objectives and Justification of the TC

2.1 The objectives of the TC are two-fold: (i) to mainstream disaster risk management (DRM) in infrastructure projects financed by the Bank; and (ii) to complete the rolling-out of the Disaster and Climate Change Risk Assessment (DCCRA) Methodology for IDB projects. The TC will improve the designs of projects financed by the Bank with specialized technical support, integrating the results of disaster risk assessment, and increasing the knowledge of disaster and climate change of project and countries teams.

2.2 Latin America and the Caribbean (LAC) is a highly vulnerable region to natural hazards. In the period 1970-2022, it was affected by a total of 2,129 disasters triggered by natural hazards, causing more than 488,600 deaths, affecting 288 million people, and generating an economic loss of around US$373 billion (EM-DAT, 2022). 87% of these disasters were triggered by climate-related phenomena. In terms of deaths, disasters caused by geophysical phenomena such as earthquakes, tsunamis and

volcanic eruptions were responsible for 76% of deaths, while, in economic terms, hydro-climatic disasters accumulated around 66% of losses in this period.

2.3 Women are disproportionately more affected by disasters than men, especially those who live in vulnerable situations. According to a 2019 UNDP report[1], at least 60% of deaths in the last 20 years caused by extreme climate events corresponded to women. Meanwhile, the OECD estimates that women and children are 14 times more likely to die from a disaster than men.

2.4 **Avoiding the construction of new risks and reducing existing risk** are imperative for the LAC region's economic and sustainable growth. Investing in resilience is a cost-effective decision: (i) for every dollar invested in resilience, $4 of disaster response spending is avoided[2]; and (ii) in the long term, countries that invest in resilience increase their GDP growth.

2.5 **Mainstream Disaster Risk Management.** Despite the empirical evidence supporting that investments in resilience are more efficient than response, the amounts approved by the IDB to reduce the risk of physical assets and population exposed to natural hazards have traditionally been overshadowed by the amount of funding approved to respond, rehabilitate, and recover from disasters. Some challenges that prevent the mainstreaming of Disaster Risk Reduction (DRR) in IDB projects include limited resources, lack of awareness or understanding of the benefits and costs of DRR, lack of coordination and collaboration among sectors, and scarce, outdated, incomplete or inconsistent data.

2.6 The financing of project, sector, and territory-specific disaster risk studies, coupled with the provision of technical guidance in the formulation and implementation of DRR operations, are expected to raise the interest in these much-needed investments in resilience, particularly among the member countries, sectors and divisions that deal with critical infrastructure. Additional resources to fund disaster risk studies can help overcoming the mentioned challenges by demonstrating the added value of risk assessment and mitigation to build infrastructure resilience, calculate costs of investments and benefits of risk reduction, foster collaboration among sectors and the counterparts, and make decisions based on robust and context-specific data.

2.7 **The rolling-out of the DCCRA Methodology has been a continuous work since 2020**[3], in which the ESG Team has integrated DRM actions into IDB projects. Some

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1 Noel Vaeza, M. 2021. “Mujeres, la primera línea de defensa contra el cambio climático, pero también las más afectadas”. ONU Mujeres – America Latina y el Caribe.

2 Mechler, R. (2016). Reviewing estimates of the economic efficiency of disaster risk management: opportunities and limitations of using risk-based cost–benefit analysis. Natural Hazards, 81(3). Moench, M., Mechler, R., & Stapleton, S. (2007). Guidance note on the costs and benefits of disaster risk reduction. Paper for ISDR High level Platform on Disaster Risk Reduction

3 During 2020-2023, with the funding provided by the TC RG-T3528 financed by the Japan Special Fund and gradually leveraging financing from OC (including transactional and administrative budget), the DCCRA Methodology was refined and used to improve the quality of the design and risk management from a resilience perspective of 70 investment loans that were classified as moderate or high disaster risk during the screening of the operations. The advance on the rolling-out of the DCCRA Methodology is evidenced in the indicator 3.15 Projects with considerable disaster and climate change risk that applied risk analysis to identify resilience actions (%) of the IDB Corporate results Framework (CRF). The goal is

challenges remain that may hinder the completion of the implementation of the Methodology, including the lack of awareness and long-term assessment of disaster and climate change risks in operations, lack of local, high resolution and sector-specific data, lack of coordination at the early stages of project preparation to integrate DRR activities, and limited understanding of DRM of the actors involved in the projects. The implementation of the DCCRA Methodology can also benefit better systems to monitor and supervise disaster and climate change risks during the execution of the projects. Additional funding to complete the roll-out of the Methodology can help address these challenges by continuing the use of a flexible and adaptive approach to integrate DRR into IDB projects, engaging with more teams and counterparts during all the lifecycle of the project, providing context-specific data and strengthening the capacities and capabilities of project stakeholders with a training by doing approach.

2.8 **Beneficiaries.** The main beneficiaries of this regional TC will be the IDB borrowing member countries that have loan operations: (i) that are disaster risk reduction-specific, or which have components or activities with that purpose; and (ii) with a moderate or high-disaster risk rating according to the Bank's disaster risk screening classification system. The direct beneficiaries will be individuals or communities who experience benefits which can be directly attributed to the infrastructure project that completed a disaster and climate change risk assessment.

2.9 **Strategic alignment**. The TC is consistent with the IDB Group Institutional Strategy: Transforming for Scale and Impact (CA-631) and is aligned with the objective address climate change by identifying disaster and climate change risks of loan operations and propose measures to manage the risks identified. The TC is also aligned with the operational focus areas of: (i) biodiversity, natural capital and climate action and (vi) sustainable, resilient, and inclusive infrastructure. Additionally, this TC is consistent with the Bank's Disaster Risk Management Policy (GN-2354-5) and it will support the implementation of the IDB Group's Action Plan on DRM 2024-2025. It is also consistent with the Environmental and Social Policy Framework (ESPF; GN-2965-23) and the Climate Change Sector Framework Document (GN-2835-13) through the generation of information and the provision of technical advice to strengthen the capacity for climate change adaptation. The TC will support the adaptation and climate-resilient goals of the IDB Group "Paris Alignment Implementation Approach" (PAIA). The TC is aligned with the Bahamas Resolution of 2016 (Resolution AG-6/16 and CII/AG-2/16 Increasing) and the Bank's Sustainable Infrastructure for Competitiveness and Inclusive Growth document.

2.10 The TC is funded by the Japan Enhanced Initiative for Quality Infrastructure, Resilience against Disaster and Health (JEI) and aligned with its objectives to promote (i) quality infrastructure investment by considering resilience against disaster and climate change considerations in the design and construction; and (ii) resilience against disaster by following the Sendai Framework for Disaster Risk Reduction.

III. Description of activities/components and budget

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reaching 100% of projects by the end of 2023. The indicator reported 22% in 2020, 96% in 2021 and 98% in 2022.

3.1 **Component I. DRM mainstreaming in infrastructure projects (US$540,000)**. This component will finance consulting services to: (i) quantitatively assess disaster risk for specific projects; (ii) provide technical advice on DRM to country and IDB project teams during the formulation, implementation and evaluation of infrastructure projects, components or activities financed by the Bank that are aimed at reducing disaster and climate change risks; and (iii) develop guidelines and train project teams on the aforementioned topics. The consulting services corresponding to this component will be under the joint supervision of CSD/RND and VPS/INE (through the Social Infrastructure Group (GIS in Spanish)). Consultants hired by this CT will strengthen the team with specific expertise in DRM for resilient buildings and infrastructure projects.

3.2 **Component II. Complete the rolling-out of the DCCRA Methodology (US$260,000).** This component will support VPS/ESG to complete the rolling-out of the DCCRA Methodology, by providing consulting services: (i) to conduct disaster risk assessments (DRA) to projects classified as moderate or high risk[4], and to projects that are affected by a disaster during implementation; (ii) to improve project designs based on the results of said DRA and to prepare DRM plans that will be implemented as part of the projects' design, execution, operation and maintenance; (iii) to develop or improve DCCRA Methodology guidelines and training materials based on the lessons learned during its rolling-out in 2020-2023; and (iv) to train counterparts in IDB borrowing member countries and project teams in the DCCRA methodology[5].

3.3 **Selection criteria.** Projects will be selected on a first-come-first-served basis. An indicative list of projects and countries that might benefit from this TC is included in Annex I. As was done with the TC RG-T3528[6] financed by the Japan special Fund (JSF), efforts will be made by the TC team to leverage financing from other sources, such as transactional, administrative and OC TCs, to maximize the positive impact of this TC.

3.4 The total amount of this TC is US$800,000 and will be financed through the Japan Enhanced Initiative for Quality Infrastructure, Resilience against Disaster and Health (JEI) which is part of the JSF. No local counterpart funding is expected.

Indicative Budget (US$)

Component	Description	JSF/Total Funding
Component I. DRM mainstreaming in infrastructure projects	2 quantitative DRA completed	200,000
	2 technical support consultants hired	300,000
	2 guidelines elaborated	40,000
Subtotal Component I		540,000
Component II. Complete the rolling-out of the DCCRA methodology	2 qualitative DRA completed	100,000

[4] The DCCRA Methodology states that moderate and high-risk operations must develop a simplified qualitative assessment consisting of a technical gap analysis, which determines the need to conduct a more detailed disaster risk analysis and/or to develop the corresponding DRM Plan.

	1 quantitative DRA completed	70,000
	1 post-event analysis completed	30,000
	2 trainings delivered	20,000
	2 operational manuals elaborated	40,000
Subtotal Component II		260,000
TOTAL		**800,000**

3.5 **Donor visibility**. The TC team will actively promote awareness among project teams and national counterparts in member countries through the implementation of a communication strategy that will include, among other activities, the following: (i) publications, training programs, seminars and workshops financed by the TC will clearly indicate that the activities in question have received funding from the Government of Japan; (ii) the donor logo will be used in the publications financed by the TC, as well as in banners and any other materials used in seminars, workshops and trainings financed by the TC; and (iii) all press releases issued by the IDB with respect to this TC will refer to the financial contribution from the Government of Japan.

IV. Executing agency and execution structure

4.1 The Bank will execute this TC. The Division of Environment, Rural Development and Disaster Risk Management (CSD/RND) will administer this TC, according to Annex II Procedures for the Processing of Technical Cooperation Operations and Related Matters (OP- 619- 4). The core group that will lead the implementation of this TC from a technical perspective includes CSD/RND, VPS/INE (through the Social Infrastructure Group (GIS)), VPS/ESG and CSD/CCS, through the Community of Practice in Resilience (CPR)[7]. The CPR will be in charge of the supervision of the CT. This implementation will also involve other Bank divisions (mostly from INE, SCL, CSD and IFD). Focal points from these divisions will be designated per project on an ad hoc basis, either at HQ or COF. There are no preconditions for the first disbursement.

4.2 Per Appendix 10 of the Operational Guidelines for TC Instruments (GN-2629-1), this TC is an initiative of the Bank and due to the proposed taxonomy, the Bank will generate knowledge and dissemination products such as qualitative and quantitative disaster risk analysis, that will be disseminated in the relevant technical meetings. The activities to be executed as part of this operation are included in the Procurement Plan and will be contracted in accordance with Bank policies as follows: (i) AM-650 for Individual consultants; (ii) GN-2765-4 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature; and (iii) GN-2303-28 for logistics and other related

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5 The Bank has developed a tutorized online course (SPOC, Small Private Online Course) and a self-paced open online course (MOOC, Massive Open Online Course). Both courses are available in Spanish, English, Portuguese, and French. The trainings to be financed by this TC will mostly use the SPOC, adapted to national or sectoral contexts.

6 The TC RG-T3528 was executed between 2020 and 2023 and financed the disaster risk assessment of 12 projects and co-financed studies for more than 10 additional projects in multiple sectors.

7 The CPR is an interdivisional multidisciplinary team of IDB specialists and consultants that aims at building up and mainstreaming resilience in IDB sectors and projects.

services. The execution and disbursement period are expected to be no longer than 24 months.

V. Major issues

5.1 The main risks of this TC are: (i) a mismatch between the project pipeline and the TC causing delays or acceleration in the use of funds earlier. To mitigate this risk a plan will be defined for identifying eligible projects early in the process. Also, the timeframe of the TC has been set to 24 months to account for these changes in time; (ii) a mismatch between the actual demand for each component support and the proposed budget allocation per component. To mitigate this risk an ongoing coordination scheme (CPR) is being proposed, where quick decisions regarding budget reallocation among components will be agreed by stakeholders' consensus; and (iii) relevant interventions proposed in the disaster risk assessments are not undertaken, or, if undertaken, they are not maintained. To mitigate this risk and ensure sustainability of the proposed measures, the TC team will ensure that the measures proposed, and the maintenance plans are implementable, and these issues are evaluated as part of the supervision.

5.2 This TC will also benefit from the lessons learned from the execution of the TC RG-T3528: (i) making the DRA specialist as part of the team that is responsible for the project preparation to engage with the sector team and the counterpart from the early stages of the project and influence decision-making with robust studies; (ii) involving the DRA specialist in the missions carried out during the project preparation and supervision to establish and maintain effective coordination and collaboration between the project team and other stakeholders; (iii) engaging project teams to co-finance disaster and climate change assessments to address context and sector-specific DRR needs, collecting, generating, analyzing and disseminating relevant data; and (iv) recording lessons learned from previous studies to replicate good practices in future projects by developing guidelines and operation manuals, and also engaging sector specialists and national professionals in workshops.

VI. Exceptions to Bank policy

6.1 There are no exceptions to Bank Policy.

VII. Environmental and Social Aspects

7.1 This Technical Cooperation is intended to finance pre-feasibility or feasibility studies of specific investment projects and the environmental and social studies associated with them; therefore, the terms of reference and products of this TC will be consistent with the applicable requirements of the Bank's Environmental and Social Policy Framework (ESPF). Moreover, the technical advice to be provided through Component II will contribute to compliance of the supported operations with the Performance Standard 4 "Community Health and Safety" of the Environmental and Social Policy Framework, particularly with the requirements related to disaster and climate change risks.

Required Annexes:

Results Matrix_23357.pdf

Terms of Reference_34337.pdf

Procurement Plan_8349.pdf