TC Document

 Country/Region: 	Regional
 TC Name: 	Support for preparedness, resilience and disaster risk management in the Caribbean
TC Number:	RG-T3133
 Team Leader/Members: 	Yuri Chakalall, Team Leader and Tsuneki Hori, Alternate Team Leader (CSD/RND). Team Members: Sergio Lacambra, Ivonne Jaimes, Adela Moreda Mora, Elizabeth Chavez (CSD/RND); Juan Jose Durante, Annabella Gaggero (IFD/CMF); Cesar Leyva Munoz (CSD/CSD); Margie-Lys Jaime Ramirez (LEG/SGO)
 Indicate if: Operational Support, Client Support, or Research & Dissemination 	Research and Dissemination
 If Operational Support TC, give number and name of Operation Supported by the TC: 	N/A
 Date of TC Abstract authorization: 	September 27, 2017
 Beneficiary (countries or entities which are the recipient of the technical assistance): 	Commonwealth of The Bahamas; Barbados; Guyana; Jamaica; Suriname; the Republic of Trinidad and Tobago and member countries of the Organization of Eastern Caribbean States.
 Executing Agency and contact name 	IDB (CSD/RND)
 Donors providing funding (amount and Fund's name): 	OC Strategic Development Program for Sustainability (SUS): US\$900,000 Multi-donor Disaster Prevention Fund (MDP): US\$100,000
IDB Funding Requested:	US\$1,000,000
 Local counterpart funding, if any: 	N/A
 Disbursement period (which includes Execution period): 	24 months
Required start date:	October 15, 2017
Types of consultants:	Firms and individual consultants
Prepared by Unit:	CSD/RND
• Unit of Disbursement Responsibility:	CSD
 TC Included in Country Strategy (y/n): 	No
 TC included in CPD (y/n): 	No
 Alignment to the Update to the Institutional Strategy 2010-2020: 	Climate change and environmental sustainability

I. Basic Information for TC

II. Objectives and Justification of the TC

- 2.1 The principal objective of this Regional Technical Cooperation (TC) is to provide Caribbean countries with key technical inputs to improve recovery, reconstruction and resilient development planning after natural disasters like hurricanes.
- 2.2 Irma, the 9th named hurricane of the 2017 Atlantic Hurricane Season, reached category 5 status in the Eastern Atlantic on September 5, 2017, with maximum sustained windspeeds reaching and exceeding 185mph. Over the course of September 5 to 7, Hurricane Irma impacted Anguilla, Antigua and Barbuda, British Virgin Islands, US Virgin Islands, Turks & Caicos, and in Thsude Bahamas two islands each in the Northeast (Bimini & Western Grand Bahamas) and in the Southwest (Great Inagua & Ragged island). Maria, the 11th named hurricane of the season, also closely followed Irma's trajectory further exacerbating preceding impacts as well as additional countries including Dominica and the US territory of Puerto Rico.
- 2.3 Preliminary estimates from the insurance industry report combined total insurable losses of US\$20 to US\$65 billion for the United States (SUS) and the Caribbean region.¹ International and regional responses have been staged for emergency assistance to the impacted islands. Comprehensive damage and loss assessments (DALA) will be necessary to estimate post-hurricane rehabilitation and reconstruction needs in the region.
- 2.4 The tourism industry may be seriously affected. An analysis of tourist traffic in the Caribbean found that it fell by 2% after a typical hurricane and by as much as 20% for major events. Airlines could face prolonged challenges, depending on the scale of the damage wrought by Irma in the tourist destinations of the Caribbean and Florida; and some hotels will be closed for months.² The major risk is that of a long-term decline in travel to the region, which would be a blow to a major driver of the Caribbean economy.
- 2.5 Unfortunately, the Caribbean region is located within the hurricane belt, making these countries highly vulnerable to the effects of storms and flooding. In recent years, the frequency and intensity of hurricanes in the Caribbean have been increasing, a trend that is expected to continue with rising global temperatures. According to some scholars the effects of climate change, in the absence of adaptation, could cost the region up 5 percent of GDP in 2025 and increasing to almost 22 percent of GDP by 2100.³
- 2.6 The region has established some instruments to help countries with reconstruction efforts. In 2007, the Caribbean Catastrophe Risk Insurance Facility (CCRIF) was formed as the first multi-country risk pool in the world, and was the first insurance instrument to successfully develop parametric policies backed by both traditional and capital markets. It was designed as a regional catastrophe fund for Caribbean

¹ AIR Worldwide (Catastrophe modeling firm) Estimates of Combined Insurance Losses for Hurricane Irma for USA and Selected Islands in the Caribbean. <u>www.air-worldwide.com/Press-Releases/AIR-</u> <u>WorldwideEstimates-Combined-Insured-Losses-for-Hurricane-Irma-for-the-United-States-and-Selected-Islands-in-the-Caribbean/</u>

² Hurricane Irma: Caribbean counts the cost of deadly storm, BBC September 8, 2017.

³ Ramon Bueno et al, The Caribbean and Climate Change: The Cost of Inaction. Tufts University 2008.

governments to limit the financial impact of devastating hurricanes and earthquakes by quickly providing financial liquidity when a policy is triggered. In 2014, the facility was restructured into a segregated portfolio company (SPC) to facilitate expansion into new products and geographic areas and is now named CCRIF SPC. The new structure, in which products are offered through a number of segregated portfolios, allows for total segregation of risk. In April 2015, CCRIF signed an MOU with COSEFIN - the Council of Ministers of Finance of Central America, Panama and the Dominican Republic - to enable Central American countries to formally join the facility.⁴

- 2.7 In 2007, the IDB developed an Integrated Disaster Risk Management and Finance Approach (GN-2354-7), the objective of which was to improve borrowing member countries' management and financial planning for natural disasters. The instrument provides a range of financial options to cover prevention and maintenance and reconstruction, as well as to bridge the fiscal gap immediately following a disaster event. These options include several instruments such as reserve funds, contingent credit loans and insurance, that can cover disaster risks depending upon their probability of occurrence and the losses and costs generated. The probability of occurrence the selection and the combination of financial instruments for each particular case.
- 2.8 In order to help Caribbean countries to improve preparedness, resilience and disaster risk management, the Bank will provide a technical support to: (i) extract lessons learned from the impact of hurricanes Irma and Maria in the region, by identifying and measuring damage and loss in the islands affected; (ii) identify complementary financial instruments so that countries may be better prepared to absorb the fiscal impacts of future natural disasters; and (iii) assess preparedness and response capacity (including shelters) and planning/coordination for resilient rehabilitation and reconstruction
- 2.9 This TC is consistent with the Caribbean Comprehensive Disaster Management Strategy and Programme Framework 2014-2024 which is overseen by the Caribbean Disaster Emergency Management Agency (CDEMA) and endorsed by 18 participating states⁵.
- 2.10 The Bank is keen to support the Caribbean Region and this effort is anticipated to be part of a wider Regional institutional responses to enable Caribbean resilience⁶.
- 2.11 Alignment with Bank's sector priorities: This TC will support the incorporation of the concept of resilience and vulnerability reduction in the rehabilitation and reconstruction process. The context of this TC is aligned with the Bank's Disaster Risk Management Policy (GN-2354-5) in Directive B-2 "Reconstruction avoiding

^{4 &}lt;u>http://www.ccrif.org/content/about-us</u>

⁵ Anguilla, Antigua and Barbuda, The Bahamas, Barbados, Belize, Commonwealth of Dominica, Grenada, Guyana, Haiti, Jamaica, Monserrat, Saint Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname, Republic of Trinidad and Tobago, Turks and Caicos Islands, Virgin Islands.

⁶ A coalition for change is being organized, including CARICOM Heads of State, IDB, CDB, WB, IMF and various private sector actors.

rebuilding vulnerability". This TC is aligned with the Update to the Institutional Strategy 2010-2020 (AB-3008) and the Corporate Results Framework 2016-2019 (GN-2727-6) in the cross-cutting theme: Climate Change and environmental sustainability. Furthermore, the TC is aligned with "Sustainable Infrastructure for Competitiveness and Inclusive Growth Strategy" (GN-2710-5), specifically with the priority area of action "Support the construction and maintenance of socially and environmentally sustainable infrastructure, thus enhancing quality of life".

- 2.12 This TC is consistent with the "IDB Integrated Strategy for Climate Change Adaptation and Mitigation, and Sustainable and Renewable Energy" (GN-2609-1) and with the "Climate Change Sector Framework Document" (GN-2835-3). One hundred percent of the TC's resources are invested in Climate Change activities, according to the joint methodology of the Multilateral Development Banks for climate finance estimation. These resources contribute to the IDB Group's goal of increasing financing for climate change projects to 30% of all of the IDB Group's operational (includes loans and TCs) approvals by the end of 2020.
- 2.13 This TC is aligned with one of the objectives of SUS: Strengthen capacities to manage disaster risk and respond to emergencies stemming from disasters (GN-2819-1).

III. Description of activities/components and budget

3.1 **Component 1: Evaluation of Damage and Loss (US\$380,000).** Resources from this component will finance the necessary technical work to extract lessons learned from the impact of hurricanes Irma and Maria in the region, by identifying and measuring damage and loss in the islands affected. The assessment will include: direct and indirect infrastructure damage and economic impact and losses. The principal method used for this study will be that of the Economic Commission for Latin America and the Caribbean (ECLAC). The Bank commonly uses this methodology for post disaster damage and loss assessment in the region⁷. The study will be conducted in coordination with ECLAC, the Caribbean Development Bank (CDB)⁸, CDEMA and the Commission of Organization of Eastern Caribbean States (OECS). Activities will include field surveys in affected countries in the region including Antigua & Barbuda and Dominica⁹. A consulting firm will be hired to implement the study¹⁰. Meetings and

⁷ The IDB conducted the same study with ECLAC in the Caribbean Region after: (i) Hurricane Joaquin in November 2015 in The Bahamas; (ii) Hurricane Earl in August 2016 in Belize; and (iii) Hurricane Matthew in October 2016 in The Bahamas.

⁸ On January 27, 1977, the IDB's Charter was amended to allow the IDB to provide financial resources to the CDB to support the development of its member countries. On September 28, 1977, the IDB and the CDB entered into an agreement setting forth the general standards applicable to operating relations between both institutions.

⁹ May include, based on the magnitude of impacts, request and coordination availability, devastated territorial islands, e.g., British Virgin Islands, Turks & Caicos Islands, Anguilla (as a British Overseas Territory in the region) and Dutch St. Maarten. Another damage and loss assessment will be conducted in the southern islands in The Commonwealth of the Bahamas, that will be incorporated in this regional damage and loss assessment.

¹⁰ The Bank will hire the consulting firm through the single-source selection method pursuant to GN-2765-1, according to which this method may apply: (a) for tasks that represent a natural continuation of previous work carried out by the firm; (b) in emergency cases; or (c) when only one firm is qualified or has

dialogue will be conducted with public and private stakeholders, affected communities and regional organizations. A final regional workshop will be organized to disseminate the results of this regional assessment.

- 3.2 **Component 2: Strengthening disaster risk financing and transfer (US\$520,000).** This component will include three sub components:
- 3.3 **Subcomponent 2.1: Probabilistic disaster risk assessment (US\$140,000).** Resources from this subcomponent will finance consultancy services to develop a regional-scale probabilistic climate risk assessment11, including The Commonwealth of the Bahamas, Barbados, Guyana, Jamaica, Suriname and Republic of Trinidad and Tobago. The final product will include quantitative estimations of Probable Maximum Losses (PML), Annual Average Losses (AAL) and Loss Exceedance Curve (LEC) at regional scale. A final regional workshop will be organized to disseminate the results of the study.
- 3.4 **Subcomponent 2.2: Enhance ex-ante country disaster financial risk management strategies. (US\$180,000).** To improve long-term financial planning to mitigate the impact of natural disasters, resources from this subcomponent will finance country assessments to identify financial needs for disaster emergencies as well as risk transfer mechanism and instruments in place to cover both public and private infrastructure and assets. The Bank will carry out an evaluation of historical data on extraordinary fiscal expenditures incurred during emergencies produced by natural disasters, which includes the estimation of the fiscal situation and determination of viability for the creation or consolidation of special budget provisions and/or reserve fiscal funds for emergency response. Activities will be carried out in all CCB countries and will produce recommendations on the institutional and financial arrangements necessary to strengthen risk financing strategies.
- 3.5 **Subcomponent 2.3: Development of parametric models for natural disaster risk financing (US\$200,000).** Resources from this subcomponent will finance the design of parametric models to determine the magnitude of the financing needs that could arise in the event of a severe or catastrophic event in CCB countries. This will allow the Bank to support countries to structure contingent financial instruments to complement risk transfer coverage provided by CCRIF SPC.

3.6 **Component 3: Capacity Assessment for Preparedness, Resilient Rehabilitation** and Reconstruction (US\$100,000):

a. Emergency shelter capacity assessment the individual consultant will conduct a shelter needs and gap analysis for future disaster preparedness. Activities include (a) development of a research methodology; (b) pilot case

experience of exceptional worth for the assignment. In fact, the method of the study is unique and. it requires special technical expertise and experience, and there is urgent need to execute the study immediately after the Hurricanes. Appropriate clearance will be obtain as required by Bank's policies and operational guidelines.

¹¹ To date, the Bank has applied the Risk Profile in 14 member countries: AR, BL, BO, CH, ES, GU, GY, HO, JA, PE, PR, RD, TT and VE - see BRIK for the Technical Note of each country. The Bahamas Country Risk Profile is under preparation using financial resources from the TC RG-T2759.

study in two or three countries (based on their interests) to identify recommendations for emergency shelter assignments.

- Ex-post resilient rehabilitation and reconstruction planning and coordination. Activities include (a) development of a research methodology; (ii) pilot case study in two or three countries (based on their interests) to identify recommendation for planning, institutional and financial arrangements. The methodology and recommendations will be adapted to countries' institutional and socioeconomic context, drawing on global best practice experiences, e.g. from Japan.
- 3.7 The total amount of financing required is one million US dollars (US\$1,000,000), with US\$100,000 to be drawn from the Multi-donor Disaster Prevention Fund (MDP) and US\$900,000 from OC Strategic Development Program for Sustainability (SUS) Fund. No counterpart funding is envisaged.

Component	Description	IDB SUS (US\$)	IDB - MDP (US\$)	Total Funding (US\$)
Component 1: Damage and Loss Assessment.	StudiesMeetings and Workshop	380,000		380,000
Component 2: Strengthening disaster risk financing and transfer.	 Subcomponent 2.1: Probabilistic disaster risk assessment Studies and workshop 	140,000		140,000
	 Subcomponent 2.2: Enhance ex-ante country disaster financial risk management strategies. Studies 	180,000		180,000
	 Subcomponent 2.3: Development of parametric models for natural disaster risk financing Studies 	200,000		200,000
Component 3: Capacity Assessment for Preparedness, Resilient Rehabilitation and Reconstruction	- Studies		100,000	100,000
	Total	900,000	100,000	1,000,000

Indicative Budget

IV. Executing agency and execution structure

4.1 The Executing Agency for this TC will be the Bank, through CSD/RND given the Division's comprehensive knowledge (including probabilistic risk assessment) and administrative capacity for executing several studies of this nature and covering

several countries. All administrative, technical supervision, internal and external coordination, delivery and quality of the final products will be the responsibility of this Division. Given the regional context of this TC specifically for the Caribbean region, CSD/RND's Disaster Risk Management team based in Jamaica will provide primary technical supervision. IFD/CMF will have primary responsibility for Subcomponents 2.2 and 2.3. There will be close coordination with IDB Country.

- 4.2 CSD/RND will procure the services of individual consultants and consulting firms in accordance with the Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-1), the Operational Guidelines for the Selection and Contracting of Consulting Firms in Bank executed Operational work (OP-1155-4) and the Regulations for Complementary Workforce (AM-650) with the provisions of the Technical Cooperation Agreement, the procurement plan and the indicative budget. The Unit with Disbursement Responsibility will remain at IDB headquarters.
- 4.3 The Bank will coordinate with the Caribbean Development Bank, World Bank, the OECS Commission, and CDEMA to ensure appropriate collaboration while implementing this TC.

V. Major issues

- 5.1 Coordination among development partner institutions: Several bilateral and multilateral development partner institutions are, and will be supporting the devastated island-countries and territories due to the Hurricanes. Close coordination and communication with the authorities and regional organizations including CDB, WB, CDEMA and the OECS Commission will be necessary to ensure synergies among the institutions. CSD/RND disaster risk management staff and consultants will undertake frequent communication with national authorities and regional organizations.
- 5.2 Adequate data collection from beneficiaries and institutions may be difficult to achieve in the short term, specifically for Component 2. The data needed for the studies include historical disaster information and long-term daily climate data registry (rainfall, temperature and wind speed). These data may be scarce or inexistent. For those variables or indicators for which data were not available, the technical teams will make the best effort to use adequate proxies.

VI. Exceptions to Bank policy

6.1 None.

VII. Environmental and Social Strategy

7.1 The TC is classified as Category "C" pursuant to the Bank's Environment and Safeguards Compliance Policy (OP-703). No negative social and environmental impact is expected through the activities financed by this TC. See <u>Safeguard Policy</u> <u>Filter Report</u>.

Required Annexes:

- Results Matrix
- Terms of Reference
- Procurement Plan

Result Matrix Outcomes

Outcome: 1 Efficient recovery, reconstruction and further resilient development in the region

RF - Contribution

Outputs: Annual Physical and Financial Progress

1 Evaluation of Damages and Losses			Physical Progress				Financial Progress											
Outputs	Fund Indicator	Unit of Measure	Baseline	Baseline Year	Means of Verification		2017	2018	2019	EOP		2017	2018	2019	EOP	Theme	Flags	
1.1 Diagnostics and assessments completed	Other(SUS) Regional Damage and	Diagnostics (#)		2017	Pamage and evaluation report	Р	1	0) (0 1	Р	350000			350000	Disaster Prevention		₹
	Neeus Assessment					P(a)	o) (o a	P(a)				0			
						Α					Α							
1.2 Seminars organized	Other(SUS) regional seminar in the	Seminars (#)	0	2017	⁷ seminar report	Р	0	1) 1	Р	0	30000		30000	Disaster Prevention		۲
	Caribean Region					P(a)	o) (o o	P(a)				0			
						Α	0)		0	Α							
2 Strengthening disaster risk financing an	d transfer							Physical Pro	ogress				Financial Pro	ogress				
Outputs	Fund Indicator	Unit of Measure	Baseline	Baseline Year	Means of Verification		2017	2018	2019	EOP		2017	2018	2019	EOP	Theme	Flags	
2.1 Diagnostics and assessments completed	Other(SUS) Probablistic Disaster	Diagnostics (#)	(201	Probablistic Disaster Assessment Report at	Р	0	1) 1	Р	0	120000		120000	Disaster Prevention		*
	Assessment Report at Caribbean Region	port at in			Caribbean Region	P(a)				C	P(a)				0	0		
						A					A							
2.2 Diagnostics and assessments completed	Other(SUS) Enhance ex-ante	Diagnostics (#)	Diagnostics (#)	0 2017	7 report (#)	Р	O) .	1 1	Р		100000	80000	180000	Disaster Prevention		₹
	country disaster financia risk management strategies	itry disaster financial management egies				P(a)				a	P(a)				0			
						Α					A							
2.3 Methodologies designed/strengthened	Other(SUS) Contingent Credit	Methodologies (#)	0	2013	Contingent Credit Facility Triggger Aeessment Repor	t P	0	0) .	1 1	Р	0	120000	80000	200000	Disaster Prevention		۲
	Aeessment Report	ort				P(a)				a	P(a)				0			
						Α					A							
2.4 Workshops organized	Other(SUS) Workshop organized	Workshops (#)	(2013	Workshop report	Р	0			1 1	Р	0	0	20000	20000	Disaster Prevention		٣
						P(a)	C) (0 0	P(a)				0			
						Α	0)		0	Α							
3 Capacity Assessment for Preparedness, Resilient Rehabilitation and Reconstruction						Physical Pro	ogress				Financial Pro	ogress						
Outputs	Fund Indicator	Unit of Measure	Baseline	Baseline Year	Means of Verification		2017	2018	2019	EOP		2017	2018	2019	EOP	Theme	Flags	
3.1 Diagnostics and assessments completed	Other(MDP) Capacity Assessment	Diagnostics (#)	(2013	Aseessment report (#)	Р	0) .	1 1	Р		50000	50000	100000	Disaster Prevention		*
	Resilient Rehabilitation and Reconstruction					P(a)				C	P(a)				0			
						Α					Α							

Other Cost



	2017	2018	2019	Total Cost
Р	\$350,000.00	\$420,000.00	\$230,000.00	\$1,000,000.00
P(a)				
A				

(Indicative TORs – Component 1)

Support for preparedness, resilience and disaster risk management in the Caribbean (RG-T3133)

Assessment of the Effects and Impacts caused by Hurricane Irma and Maria in Tourism Economic Sector

TERMS OF REFERENCE

Background

Irma, the 9th named hurricane of the 2017 Atlantic Hurricane Season, reached category 5 status in the Eastern Atlantic on September 05, 2017, with maximum sustained windspeeds reaching and exceeding 185mph. Over the course of September 5 to 7 Hurricane Irma impacted Anguilla, Antigua & Barbuda, British Virgin Islands, US Virgin Islands, Turks & Caicos, and two islands each in the NE (Bimini & Western Grand Bahamas) and SW (Great Inagua & Ragged island) of the Bahamas. Maria, the 11th named hurricane of the season has also closely following Irma's trajectory further exacerbating preceding impacts as well as additional countries including Dominica. Already, preliminary insurance-industry-estimated combined total insurable losses for the US and the Caribbean range between US\$20 to 65 billion¹. International and regional responses have been staged from amongst un-affected and partially affected IDB member countries including Jamaica, Barbados and The Bahamas to the impacted countries.

These TORs refer to the services of a consultant in assessing the economic impacts due to the passage of recent Hurricanes Irma and Maria in the Caribbean region. The assessment includes damages (or direct infrastructure damage and economic impact), losses (or secondly economic impact due to the infrastructure e.g., logistic service loss due to transport infrastructure that is inoperative during rehabilitation process) and/or gains (e.g., if tourist loss in one country due to hurricane incase the benefit in other neighborhood country) due to the passage of recent Hurricanes. The study specifically focuses on the tourism economic sector in the Region.

Consultancy objective(s)

The consultancy will work as a team member of the study and the team-work consists of two sections. First, the team will estimate the sectoral damages and losses which are the basis to estimate the macroeconomic impact of the disaster. The second part will focus on recommendations for the reconstruction process and the estimation of financial needs for reconstruction.

Following the sectoral classification conducted by the study team members² used by the Disaster Assessment Methodology, the consultant will estimate the damage, losses and

¹ AIR Worldwide (Catastrophe modeling firm) Estimates of Combined Insurance Losses for Hurricane Irma for USA and Selected Islands in the Caribbean. www.air-worldwide.com/Press-Releases/AIR-Worldwide-Estimates-Combined-Insured-Losses-for-Hurricane-Irma-for-the-United-States-and-Selected-Islands-in-the-Caribbean/

 $^{^{2}}$ (1) Social sector: housing, education and health. (2) Infrastructure sector: power, water and sanitation, transportation, telecommunications. (3) Productive sector: fisheries and tourism.

additional costs caused by Hurricane Joaquin in public buildings and in the transportation subsector, which includes roads, airports and ports. Subsequently, the team will make recommendations to guide the reconstruction process.

The consultant will work closely with the CEPAL Project Coordinator, the Government of the involved countries and the IDB country office in the estimation of the impacts of the disaster.

Main activities

The selected candidate will:

- a. Elaborate a baseline or pre-disaster scenario (public buildings and transportation).
- b. Gather information on the effects and impacts of the disaster from relevant stakeholders, publications and field visits to the affected islands, as well as any other relevant sources.
- c. Estimate the effects of the disaster in public buildings.
- d. Estimate the effects of the disaster in the tourism economic sector, which includes hotels, roads, airports and ports.
- e. Participate in the estimation of the impacts of the disaster.
- f. Recommend specific sectoral strategies to improve disaster risk reduction and guide the national reconstruction process.

Reports / Deliverables

The consultant will deliver one report for each subsector analyzed: TBD. The team will produce one final country report. The final report will be submitted in an electronic file and should include cover, main document and annexes.

Payment Schedule

One payment will be made once the final Disaster Assessment Report is submitted to the IDB.

Qualifications

- Academic Degree / Level & Years of Professional Work Experience: Master's or Doctoral degree in Engineering or related field. Experience in disaster assessment and reconstruction/ 10 years of experience.
- Languages: English
- Areas of Expertise: Disaster assessment, disaster risk reduction, public infrastructure, transportation
- Skills: Demonstrated understanding of the damage, loss and needs assessments developed by the CEPAL. Field experience of the study will be an asset.

Characteristics of the Consultancy

- Consultancy category and modality: Products and External Services Contractual, Lump Sum
- Contract duration: one month
- Place(s) of work: the residence of the consultant and the Bahamas
- Division Leader or Coordinator: CSD/RND Yuri Chakalall.

Payment and Conditions: Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

Consanguinity: Pursuant to applicable Bank policy, candidates with relatives (including the fourth degree of consanguinity and the second degree of affinity, including spouse) working for the Bank as staff members or Complementary Workforce contractuals, will not be eligible to provide services for the Bank.

Diversity: The Bank is committed to diversity and inclusion and to providing equal opportunities to all candidates. We embrace diversity on the basis of gender, age, education, national origin, ethnic origin, race, disability, sexual orientation, religion, and HIV/AIDs status. We encourage women, Afro-descendants and persons of indigenous origins to apply.

Component 2.1

Support for preparedness, resilience and disaster risk management in the Caribbean (RG-T3133)

Probabilistic Disaster Risk Assessment

TERMS OF REFERENCE

Background

- 1.1 Established in 1959, the Inter-American Development Bank (IDB) is the principal source of financing for economic, social, and institutional development in Latin America and the Caribbean. IDB provides mainly loans, grants and technical assistance to both the public and private sectors of its borrowing countries.
- 1.2 The IDB is in the process of developing a technical study called Country Disaster Risk Profile (the Country Profile). The Country Profile estimates probabilistic disaster risk³ (in terms of future economic and social loss due to disasters) at the national, local and sector level. The results of the Country Profile in some countries are already published in the IDB web site⁴.
- **1.3** The present consultancy corresponds to the implementation of the Disaster Risk Profile study for The Caribbean region.

Consultancy objective(s)

- 2.1 The purpose of this consultancy is to develop The Bahama's Disaster Risk Profile. The term "disaster risk" in this consultancy refers to the infrastructure damage⁵, economic losses, and human/social impacts due to hazard events. Probabilistic risk assessment (PRA) will be applied to the study (to assess the risk in different magnitude or return periods). If possible, the study will develop a hybrid loss exceedance curve at the national level⁶.
- 2.3 The targeted hazard of this study will be hurricanes and coastal floods incorporating the Climate Change scenarios.

Main Activities

3.1 The Consultant firm (the Firm) will conduct the disaster risk assessment study in the country. Additionally, the Firm will transfer technical knowledge related to PRA to government institutions⁷. The activities will include:

³ Include probable maximum losses (PML) and average annual losses (AAL). The magnitude of the risk is estimated for different development sectors and geographic areas for different return periods.

⁴ For example, Belize (hurricane risk), Bolivia (earthquakes), Jamaica (hurricane and earthquakes), Venezuela (earthquakes and floods) and Peru (earthquakes and floods).

⁵ Include housings, commercial facilities, industrial facilities, transportation, health, education and other public service facilities, public health, public education and government buildings, infrastructure located in urban areas (energy, communications, water, and other lifeline infrastructure, gas networks) and outside of the urban areas (e.g., power plant)

⁶ See chapter 5 of the UNISDR Global Assessment Report 2011. Based on this reference the consulting firm could propose the methodology in detail.

⁷ For example, the Department of Meteorology and NEMA.

- a. **Work Plan**. The Firm will prepare, in consultation with the IDB and the national authorities, the work plan including:
 - i. Description of the detailed methodology for each study implementation process (data collection, hazard assessment, exposure model and its value estimation, identification of vulnerability functions and probabilistic disaster risk estimation);
 - ii. Implementation schedule; and
 - iii. Final workshop.
- b. **Historical disaster loss assessment.** The Firm, in coordination with the national authorities and the IDB, will collect historical disaster data, compile these and develop empirical loss exceedance curves for each hazard (for each of the target hazards, and other loss exceedance curves combined).
- c. **Probabilistic hazard assessment.** Using daily (or, if possible, hourly) digitalized climate data (precipitation, wind, and tidal waves) from each of the weather stations of the Department of Meteorology, the Firm will develop probabilistic hazard assessment for each of the target hazards. May incorporate (with or without) the IPCC Climate Change Scenarios.
- d. **Exposure model, its value estimation and vulnerability function**. The Firm will collect infrastructure data (e.g., inventories) necessary for the exposure model and the estimation of its economic value for the whole country⁸⁹. Additionally, the Firm will identify vulnerability functions of each disaggregated exposure model for the targeted hazards¹⁰.
- e. **Probabilistic Disaster Risk Assessment.** Using the results of the hazard assessment and exposure value, in combination with the vulnerability functions identified, the Firm will estimate the probabilistic risk at the national, family-island and sector level in terms of physical infrastructure damage, economic losses and social/human impacts. This calculation will include the maximum probable loss and average annual loss of each target hazard with some return periods (for example 20, 50, 100 and 200 years). May incorporate (with or without) the IPCC Climate Change Scenarios. The Firm will prepare a Country Profile report using the IDB's standard structure and format.
- f. <u>Final Workshop.</u> The Firm will present the results of the study to national and local authorities.

Reports / Deliverables

4.1 The Firm shall submit the following products to the IDB:

- a. Work Plan.
- b. Historical disaster loss assessment and probabilistic hazard assessment.

⁸ The exposed value should include public and private construction, urban and national infrastructure, disaggregated by each family island and sector. See <u>https://publications.iadb.org/handle/11319/6382</u> for standard disaggregated exposure model of IDB.

⁹ Proxy exposure value can be applied in case of the detailed exposure value information is not available.

¹⁰ Vulnerability functions will be used, such as CAPRA or FEMA (Federal Emergency Management Agency) in Hazus software.

- c. Exposure model, its value estimation and vulnerability function.
- d. Disaster Risk Profile report.

Payment Schedule

The payments are scheduled as follows:

- a. (10%) upon signature of the contract
- b. (30%) upon approval of the products 4.1.a and b
- c. (30%) upon approval of the product 4.1.c
- d. (30%) upon approval of the product 4.1.d

Qualifications

- Academic Degree / Level & Years of Professional Work Experience: Minimum of 10 years on probabilistic risk analysis
- Languages: English
- Areas of Expertise: Detailed knowledge and experience in probabilistic risk analysis for hurricanes and floods.

Characteristics of the Consultancy

- Consultancy category and modality: Products and External Services Contractual, Lump Sum
- Contract duration: 15 months
- Place(s) of work: Caribbean region.
- Responsible Person: Disaster Risk Management Specialist, Yuri Chakalall (CSD/RND)

Payment and Conditions: Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

Consanguinity: Pursuant to applicable Bank policy, candidates with relatives (including the fourth degree of consanguinity and the second degree of affinity, including spouse) working for the Bank as staff members or Complementary Workforce contractuals, will not be eligible to provide services for the Bank.

Diversity: The Bank is committed to diversity and inclusion and to providing equal opportunities to all candidates. We embrace diversity on the basis of gender, age, education, national origin, ethnic origin, race, disability, sexual orientation, religion, and HIV/AIDs status. We encourage women, Afro-descendants and persons of indigenous origins to apply.

Component 2.2

ENVIRONMENT, RURAL DEVELOPMENT AND DISASTER RISK MANAGEMENT DIVISION (CSD/RND)

Support for preparedness, resilience and disaster risk management in the Caribbean (RG-T3133)

Enhance ex-ante country disaster financial risk management strategies

TERMS OF REFERENCE

I. Background

- 1.1. Established in 1959, the Inter-American Development Bank ("IDB" or "Bank") is the main source of financing for economic, social and institutional development in Latin America and the Caribbean (LAC). It provides loans, grants, guarantees, policy advice and technical assistance to the public and private sectors of its borrowing countries.
- 1.2. IDB approved the Regional Technical Cooperation (TC) project titled: Post Hurricane Resilient Regional Recovery (RG-T3081). The principal objective of this Regional Technical Cooperation (TC) is to support selected CCB Bank Member Countries (BMCs) (The Bahamas, Barbados and Jamaica), to provide key technical inputs that will feed into upcoming recovery, reconstruction and resilient development planning following the regional-scale devastating impacts of hurricanes Irma and Maria. Specifically, the TC will: (a) assess hurricane induced economic damages and losses in key sectors such as tourism. Damage and losses will be assessed in the context of direct infrastructure and economic operational losses. Gains will be assessed by comparing (e.g., changes in tourism visitation between hurricane affected countries and those unaffected or lesser affected; (b) develop national contingent credit ex-ante financial strategies; and (c) design model institutional structures and plans for post impact resilient recovery, reconstruction and redevelopment.
- 1.3. These terms of reference (TORs) refer to the services of a consultant for the activities related to the (b) develop Enhance ex-ante country disaster financial risk management strategies.

II. Objective and framework

- 2.1. <u>The objective</u> of this consultancy is to country assessments to identify financial needs for disaster emergencies as well as risk transfer mechanism and instruments in place to cover both public and private infrastructure and assets
- 2.2. <u>The final product of this consultancy will be an assessment report. Pilot countries:</u> TBD.

III. Main activities

3.1. Under the frameworks described in the Section II, the consultant will:

- a) Prepare a <u>workplan</u> to encompass concrete activities and schedule to implement these.
- b) Undertake an evaluation of historical data on extraordinary fiscal expenditures incurred during emergencies produced by natural disasters, which includes the estimation of the fiscal situation and determination of viability for the creation or consolidation of special budget provisions and/or reserve fiscal funds for emergency response.
- c) Prepare a comprehensive assessment report for The Bahamas, Barbados and Jamaica.
- 3.2. All the deliverables will be developed in English.

IV. Reports/Deliverables

- 4.1. Work plan, (activity 3.1 a));
- 4.2. Assessment report for XXX

V. Payment Schedule

- 20% upon the delivery of the work plan (product 4.1) and approval by the Bank;
- 20% upon the delivery of the baseline survey (product 4.2) and approval by the Bank
- 30% upon the delivery of the assessment report COUNTRIES TBD and approval by the Bank
- 30% upon the delivery of the assessment report COUNTRIES TBD and approval by the Bank

VI. Qualifications

- Firm's areas of expertise and team leader's qualifications and experience: The consultancy firm/specialized institution should possess at least 10 years of experience in financial mechanisms on coastal zone protection financial mechanisms. The team leader nominated by the firm/specialized institution for this consultancy should possess a doctoral degree or equivalent on environmental, coastal zone, or climate change finances or economies with minimum 10 years of professional experience.
- Languages: English.
- Skills: Excellent analytical, writing and communication skills and effective ability to work in interdisciplinary teams.

VII. Characteristics of the Consultancy

- Consultancy category and modality: Firm, Products and Services Contract.
- Contract duration: XXX months, non-continuous.
- Travel: XXX.
- Place of work: Firm/specialized institution location.
- Coordinator: Yuri Chakalall, Senior Disaster Risk Management Specialist (yuric@IADB.ORG)

Payment and Conditions: Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

Consanguinity: Pursuant to applicable Bank policy, candidates with relatives (including the fourth degree of consanguinity and the second degree of affinity, including spouse) working for the Bank as staff members or Complementary Workforce contractuals, will not be eligible to provide services for the Bank.

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Component 2.3

ENVIRONMENT, RURAL DEVELOPMENT AND DISASTER RISK MANAGEMENT DIVISION (CSD/RND)

Support for preparedness, resilience and disaster risk management in the Caribbean (RG-T3133)

Development of parametric models for natural disaster risk financing

TERMS OF REFERENCE

VIII. Background

- 8.1. Established in 1959, the Inter-American Development Bank ("IDB" or "Bank") is the main source of financing for economic, social and institutional development in Latin America and the Caribbean (LAC). It provides loans, grants, guarantees, policy advice and technical assistance to the public and private sectors of its borrowing countries.
- 8.2. IDB approved the Regional Technical Cooperation (TC) project titled: Post Hurricane Resilient Regional Recovery (RG-T3081). The principal objective of this Regional Technical Cooperation (TC) is to support selected CCB Bank Member Countries (BMCs) (The Bahamas, Barbados and Jamaica), to provide key technical inputs that will feed into upcoming recovery, reconstruction and resilient development planning following the regional-scale devastating impacts of hurricanes Irma and Maria. Specifically, the TC will: (a) assess hurricane induced economic damages and losses in key sectors such as tourism. Damage and losses will be assessed in the context of direct infrastructure and economic operational losses. Gains will be assessed by comparing (e.g., changes in tourism visitation between hurricane affected countries and those unaffected or lesser affected; (b) develop national contingent credit ex-ante financial strategies; and (c) design model institutional structures and plans for post impact resilient recovery, reconstruction and redevelopment.
- 8.3. These terms of reference (TORs) refer to the services of a consultant for the activities related to the (b) Development of parametric models for natural disaster risk financing, specifically to assess of triggers for contingent credit facility

IX. **Objective and framework**

- 9.1. <u>The objective</u> of this consultancy is to develop a model to determine parametric triggers for the Bank's financial facility: Contingent Loan for Disaster Emergencies in The Bahamas, Barbados and Jamaica.
- 9.2. <u>The final product of this consultancy will be an assessment report for the three countries.</u>

X. Main activities

10.1. Under the frameworks described in the Section II, the consultant will:

- d) Prepare a <u>workplan</u> to encompass concrete activities and schedule to implement these.
- e) Undertake an analysis and evaluation of potential captive domiciles, and based on the optimal overall solution of all tax and regulatory concerns provide a list with those domiciles recommended; Analyze and provide an estimated range of captive costs for an initial five (5) years period, including costs for setup (including but not limited to expenses and fees to be paid by the Captive to register or file with the authorities), capitalization and on-going operations (including but not limited to operating expenses, premiums, premium taxes, third party modeler expertization fees, syndication commissions and calculation agent fees).
- f) Based on exposure, and probabilistic risk assessment, design an adequate parametric trigger for contingent loan facility coverage, that to the best judgment of the consulting firm would be reinsurable in the open reinsurance and capital markets, to be offered by the captive for the protection once a certain percentage of the population is affected, as calculated by the pre-agreed-upon parametric modeled loss trigger. Provide an estimate of the cost to the captive of the parametric credit line facility for a period of up to five years.
- g) Setup of claims and accounting structure systems between countries, captives and reinsurers. The Consultant will develop the structure, however implementation of all operating systems of the Captive (including IT, Claims and Accounting) are the responsibility of the Captive Manager, and will be a criteria in the evaluation of the potential captive managers. Selection of all independent third parties to be involved with operating and managing of the captives (Captive managers, auditors and asset managers).
- h) Prepare a comprehensive assessment report for The Bahamas, Barbados and Jamaica.
- 10.2. All the deliverables will be developed in English.

XI. Reports/Deliverables

- 11.1. Work plan, (activity 3.1 a));
- 11.2. Baseline survey (3.1 b));
- 11.3. Assessment report for The Bahamas
- 11.4. Assessment Report for Barbados
- 11.5. Aseessment Report for Jamaica

XII. Payment Schedule

• 20% upon the delivery of the work plan (product 4.1) and approval by the Bank;

- 20% upon the delivery of the baseline survey (product 4.2) and approval by the Bank
- 20% upon the delivery of the general framework of coastal protection financial mechanism (product 4.3) and approval by the Bank
- 20% upon the delivery of three country-specific financial strategy (product 4.4) and approval by the Bank;
- 20% upon the delivery of the recommendations (product 4.5) and approved by the Bank.

XIII. Qualifications

- Firm's areas of expertise and team leader's qualifications and experience: The consultancy firm/specialized institution should possess at least 10 years of experience in financial mechanisms on coastal zone protection financial mechanisms. The team leader nominated by the firm/specialized institution for this consultancy should possess a doctoral degree or equivalent on environmental, coastal zone, or climate change finances or economies with minimum 10 years of professional experience.
- Languages: English.
- Skills: Excellent analytical, writing and communication skills and effective ability to work in interdisciplinary teams.

XIV. Characteristics of the Consultancy

- Consultancy category and modality: Firm, Products and Services Contract.
- Contract duration: XXX months, non-continuous.
- Travel: XXX.
- Place of work: Firm/specialized institution location.
- Coordinator: Yuri Chakalall, Senior Disaster Risk Management Specialist (yuric@IADB.ORG) and Tsuneki Hori, disaster risk management specialist (tsunekih@iadb.org).

Payment and Conditions: Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

Consanguinity: Pursuant to applicable Bank policy, candidates with relatives (including the fourth degree of consanguinity and the second degree of affinity, including spouse) working for the Bank as staff members or Complementary Workforce contractuals, will not be eligible to provide services for the Bank.

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COMPONENT 3

REGIONAL

ENVIRONMENT, RURAL DEVELOPMENT AND DISASTER RISK MANAGEMENT DIVISION (CSD/RND)

Support for preparedness, resilience and disaster risk management in the Caribbean (RG-T3133)

Capacity Assessment for Preparedness, Resilient Rehabilitation and Reconstruction

TERMS OF REFERENCE

XV. Background

- 15.1. Established in 1959, the Inter-American Development Bank ("IDB" or "Bank") is the main source of financing for economic, social and institutional development in Latin America and the Caribbean (LAC). It provides loans, grants, guarantees, policy advice and technical assistance to the public and private sectors of its borrowing countries.
- 15.2. IDB approved the Regional Technical Cooperation (TC) project titled: Post Hurricane Resilient Regional Recovery (RG-T3081). The principal objective of this Regional Technical Cooperation (TC) is to support selected CCB Bank Member Countries (BMCs) (The Bahamas, Barbados and Jamaica), to provide key technical inputs that will feed into upcoming recovery, reconstruction and resilient development planning following the regional-scale devastating impacts of hurricanes Irma and Maria. Specifically, the TC will: (a) assess hurricane induced economic damages and losses in key sectors such as tourism. Damage and losses will be assessed in the context of direct infrastructure and economic operational losses. Gains will be assessed by comparing (e.g., changes in tourism visitation between hurricane affected countries and those unaffected or lesser affected; (b) develop national contingent credit ex-ante financial strategies; and (c) design model institutional structures and plans for post impact resilient recovery, reconstruction and redevelopment.
- 15.3. These terms of reference (TORs) refer to the services of a consultant for the activities related to the (c) Capacity Assessment for Preparedness, Resilient Rehabilitation and Reconstruction.

XVI. **Objective and framework**

- 16.1. <u>The objective</u> of this consultancy is to develop an Capacity Assessment for Preparedness, Resilient Rehabilitation and Reconstruction.
- 16.2. <u>The target countries</u> of this consultancy are: TBD.
- 16.3. <u>The final product of this consultancy will be a proposal design for the assessment</u> report including: rehabilitation/reconstruction planning, institutional and financial arrangements, shelters and emergency response capabilities.

16.4. The assessment will include four key elements: knowledge of the risks; monitoring, analysis and forecasting of the hazards; communication or dissemination of alerts and warnings; and local capabilities to respond to the warnings received, including shelters. End-to-end warning system will be used to emphasize that warning systems need to span all steps from hazard detection through to community response, and planning for rehabilitation and reconstruction. This work will be developed in close collaboration with CDB.

XVII. Main activities

- 17.1. Under the frameworks described in the Section II, the consultant will:
 - i) Prepare a <u>workplan</u> to encompass concrete activities and schedule to implement these.
 - j) Conduct a <u>baseline survey</u> to identify challenges and opportunities to develop a design of the national ex post resilience system for hazard events, including (i) Review of the current condition of rehabilitation and reconstruction planning, shelters and emergency response capacity, and (ii) policy, institutional and regulatory context for ex post rehabilitation and reconstruction financing and implementation process. May include Interviews with public and private stakeholders, NGOs, academic institutions to identify challenges and opportunities.
 - k) Develop a general methodology and framework of the study applicable to the <u>Caribbean Region</u>, validate to the stakeholders of the three countries, international financial resource providers, global insurance companies. May include a regional conference.
 - I) Develop an assessment report for COUNTRIES: TBD.
 - m) Elaborate <u>recommendations, if necessary, to establish a new regional financial</u> instrument for improving disaster risk preparedness national systems.
- 17.2. All the deliverables will be developed in English.

XVIII. Reports/Deliverables

- 18.1. Work plan, (activity 3.1 a));
- 18.2. Baseline survey (3.1 b));
- 18.3. Document: general framework of financial protection mechanism (3.1 c)).
- 18.4. Three country-specific strategy (3.1 d)); and
- 18.5. Recommendations (3.1 e))

XIX. Payment Schedule

- 10% upon the delivery of the work plan (product 4.1) and approval by the Bank;
- 15% upon the delivery of the baseline survey (product 4.2) and approval by the Bank
- 20% upon the delivery of the general framework of coastal protection financial mechanism (product 4.3) and approval by the Bank
- 35% upon the delivery of three country-specific financial strategy (product 4.4) and approval by the Bank;
- 20% upon the delivery of the recommendations (product 4.5) and approved by the Bank.

XX. Qualifications

- Firm's areas of expertise and team leader's qualifications and experience: The consultancy firm/specialized institution should possess at least 10 years of experience in financial mechanisms on coastal zone protection financial mechanisms. The team leader nominated by the firm/specialized institution for this consultancy should possess a doctoral degree or equivalent on environmental, coastal zone, or climate change finances or economies with minimum 10 years of professional experience.
- Languages: English.
- Skills: Excellent analytical, writing and communication skills and effective ability to work in interdisciplinary teams.

XXI. Characteristics of the Consultancy

- Consultancy category and modality: Firm, Products and Services Contract.
- Contract duration: XXX months, non-continuous.
- Travel: XXX.
- Place of work: Firm/specialized institution location.
- Coordinator: Yuri Chakalall, Senior Disaster Risk Management Specialist (yuric@IADB.ORG) and Tsuneki Hori, disaster risk management specialist (tsunekih@iadb.org).

Payment and Conditions: Compensation will be determined in accordance with Bank's policies and procedures. In addition, candidates must be citizens of an IDB member country.

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Inter-American Development Bank VPC/FMP

PROCUREMENT PLAN FOR NON-REIMBURSABLE TECHNICAL COOPERATIONS												
Country	Country: Regional Executing agency: IDB Public or private sector: Public Sector											
Project	Project Title: Support for preparedness, resilience and disaster risk management in the Caribbean											
Period of	overed b	y the plan: 24 months										
Thresho	ld for ex-	post review of procurements:		Goods and servi	ices (in US\$): 0		Consu	ulting services(in US\$):1,0	00,000			
Item	Ref.	Description	Estimated contract	Procurement Method	Review of procurement (3)	Source o and pe	f financing rcentage	Estimated date of the procurement	Technical review by the PTL	Comments		
N-	AWF	(1)	cost (US\$)	(2)		IDB/MIF %	Local/other %	contract	(4)			
1		Component 1	\$380,000									
		Consulting services										
		damage and loss assessment	\$350,000	SSS	N/A	100%	0%	2017B		Firm consultant		
		Meetings and Workshop	\$30,000		N/A	100%	0%	2018A		logistic expences		
2	2 Component 2 \$520,000											
		Consulting services	services and the servic									
		Probablistic disaster risk assessment	\$120,000	QCBS	N/A	100%	0%	2017B		firm consultant		
		Enhance ex-ante country disaster financial risk management strategies	\$180,000	IICQ	N/A	100%	0%	2018A		individual consultants		
		Development of parametric models for natural disaster risk financing	\$200.000	OCBS	N/A	100%	0%	2018A		individual consultants		
		Desemination Workshop	\$20.000		N/A	100%	0%	2018B		logistic expences		
			. ,		,							
3		Component 3										
		Consulting services										
		Capacity Assessment for Preparedness, Resilient Rehabilitation and Reconstruction	\$100,000	IICQ	N/A	100%	0%	2018A		individual consultant		
	Total \$1,000,000 Prenared by: RND Date: 10/6/2017											
(1) Grou	(1) Grouping together of similar procurement is recommended, such as computer hardware, publications, travel, etc. if there are a number of similar individual contracts to be executed at different times, they can be grouped together under a single heading, with an explanation in the											
comments column indicating the average individual amount and the period during which the contract would be executed. For example: an export promotion project that includes travel to participate in fairs would have an item called "airfare for fairs", an estimated total value od US\$5,000, and an explanation in the Comments column: "This is for approximately four different airfares to participate in fairs in the region in years X and X1".												
(2) Goods and works: CB: Competitive bidding; PC: Price comparison; DC: Direct contracting.												
(2) <u>Consulting firms</u> : CQS: Selection Based on the Consultants' Qualifications; QCBS: Quality and cost-based selection; LCS: Least Cost Selection nder a Fixed Budget; SSS: Single Source Selection; QBS: Quality Based selection.												
(2) Individual consultants: IICQ: International Individual Consultant Selection Based on Qualifications; SSS: Single Source Selection.												
(2 <u>) Coun</u>	(2) Country system: include selection Method											
(3) Ex-ante/ex-nost review: In general, depending on the institutional capacity and level of risk associated with the procurement, ex-nost review is the standard modality. Ex-ante review can be specified for critical or complex process												

(4) Technical review: The PTL will use this column to define those procurement he/she considers "critical"or "complex"that require ex ante review of the terms of reference, technical specifications, reports, outputs, or other items.