

Document of
The World Bank
FOR OFFICIAL USE ONLY

Report No: ICR00005710

IMPLEMENTATION COMPLETION AND RESULTS REPORT

ON AN

INTERNATIONAL DEVELOPMENT ASSOCIATION CREDIT

IN THE AMOUNT OF

SDR 7.8 MILLION (US\$12 MILLION EQUIVALENT)

TO THE REPUBLIC OF HONDURAS

AND

SDR 7.8 MILLION (US\$12 MILLION EQUIVALENT)

TO THE REPUBLIC OF NICARAGUA

FOR THE

NICARAGUA CATASTROPHE RISK INSURANCE PROJECT (P149895)

December 21, 2021

Urban, Resilience And Land Global Practice
Latin America And Caribbean Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 8, 2021)

Currency Unit =	Nicaragua Cordoba (NIO)
NIO 35.23=	US\$1
US\$1.40=	SDR 1

FISCAL YEAR
July 1 - June 30

Regional Vice President: Carlos Felipe Jaramillo

Country Director: Michel Kerf

Regional Director: Anna Wellenstein

Practice Manager: David N. Sislen

Task Team Leader(s): Mirtha Liliana Escobar Saenz, Rashmin Gunasekera

ICR Main Contributor: Diana Cubas, Mary Boyer

ABBREVIATIONS AND ACRONYMS

CARICOM	The Caribbean Community
CCRIF	Caribbean Catastrophe Risk Insurance Facility
CCRIF SPC	Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company
COSEFIN	Council of Ministers of Finance of Central America and the Dominican Republic
DRFI	Disaster Risk Financing and Insurance
DRF-TA	Disaster Risk Financing Technical Assistance
DRM	Disaster Risk Management
EU	European Union
GoN	Government of Nicaragua
ISR	Implementations Status Report
MDTF	Multi-Donor Trust Fund
PAD	Project Appraisal Document
PDO	Project Development Objective
ToC	Theory of Change

TABLE OF CONTENTS

DATA SHEET	1
I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES.....	5
A. CONTEXT AT APPRAISAL	5
B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)	10
II. OUTCOME	12
A. RELEVANCE OF PDOs	12
B. ACHIEVEMENT OF PDOs (EFFICACY)	14
C. EFFICIENCY	18
D. JUSTIFICATION OF OVERALL OUTCOME RATING	19
E. OTHER OUTCOMES AND IMPACTS (IF ANY).....	20
III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME.....	22
A. KEY FACTORS DURING PREPARATION	22
B. KEY FACTORS DURING IMPLEMENTATION	23
IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME ..	24
A. QUALITY OF MONITORING AND EVALUATION (M&E)	24
B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE	25
C. BANK PERFORMANCE	25
D. RISK TO DEVELOPMENT OUTCOME	26
V. LESSONS AND RECOMMENDATIONS	26
ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS.....	28
ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION.....	31
ANNEX 3. PROJECT COST BY COMPONENT	33
ANNEX 4. EFFICIENCY ANALYSIS.....	34
ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS ...	36
ANNEX 6. SUPPORTING DOCUMENTS (IF ANY)	37



DATA SHEET

BASIC INFORMATION

Product Information

Project ID	Project Name
P149895	Nicaragua Catastrophe Risk Insurance Project
Country	Financing Instrument
Nicaragua	Investment Project Financing
Original EA Category	Revised EA Category

Organizations

Borrower	Implementing Agency
Republic of Nicaragua	Republic of Nicaragua

Project Development Objective (PDO)

Original PDO

The Project Development Objective is to enable the access of Honduras and Nicaragua to efficient sovereign risk insurance associated with tropical cyclones, earthquakes, and/or excess rainfall.

Revised PDO

The Project Development Objective is to enable access of Nicaragua to efficient sovereign risk insurance associated with geophysical and climate-related events.

FINANCING

	Original Amount (US\$)	Revised Amount (US\$)	Actual Disbursed (US\$)
World Bank Financing			
IDA-55310	12,000,000	11,659,010	10,550,000
IDA-55300	12,000,000	12,000,000	0
Total	24,000,000	23,659,010	10,550,000
Non-World Bank Financing			
Total	0	0	0
Total Project Cost	24,000,000	23,659,010	10,550,000

KEY DATES

Approval	Effectiveness	MTR Review	Original Closing	Actual Closing
18-Jun-2014	01-Jun-2015		31-Jul-2021	30-Jun-2021

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Amount Disbursed (US\$M)	Key Revisions
19-Apr-2017	3.50	Change in Implementing Agency Change in Project Development Objectives Change in Results Framework Change in Components and Cost Change in Loan Closing Date(s) Reallocation between Disbursement Categories Change in Implementation Schedule Other Change(s)
19-Jul-2019	7.10	Change in Disbursements Arrangements

KEY RATINGS

Outcome	Bank Performance	M&E Quality
Satisfactory	Highly Satisfactory	Substantial



RATINGS OF PROJECT PERFORMANCE IN ISRs

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US\$M)
01	08-Oct-2014	Satisfactory	Satisfactory	0
02	07-Apr-2015	Satisfactory	Satisfactory	0
03	09-Oct-2015	Satisfactory	Satisfactory	2.00
04	12-May-2016	Satisfactory	Moderately Unsatisfactory	2.00
05	13-Dec-2016	Satisfactory	Moderately Unsatisfactory	3.50
06	30-May-2017	Satisfactory	Satisfactory	3.50
07	08-Dec-2017	Satisfactory	Satisfactory	4.80
08	14-Jun-2018	Satisfactory	Satisfactory	7.10
09	20-Dec-2018	Satisfactory	Satisfactory	7.10
10	28-Jun-2019	Satisfactory	Satisfactory	7.10
11	23-Dec-2019	Satisfactory	Satisfactory	8.94
12	22-Jun-2020	Satisfactory	Satisfactory	8.94
13	16-Dec-2020	Satisfactory	Highly Satisfactory	10.55
14	08-Jul-2021	Satisfactory	Highly Satisfactory	10.55

SECTORS AND THEMES

Sectors

Major Sector/Sector (%)

Financial Sector 100

Insurance and Pension 100

Themes

Major Theme/ Theme (Level 2)/ Theme (Level 3) (%)



Finance	25
Finance for Development	25
Disaster Risk Finance	25
Urban and Rural Development	75
Disaster Risk Management	75
Disaster Response and Recovery	25
Disaster Risk Reduction	25
Disaster Preparedness	25
Environment and Natural Resource Management	70
Climate change	70
Adaptation	70

ADM STAFF

Role	At Approval	At ICR
Regional Vice President:	Jorge Familiar Calderon	Carlos Felipe Jaramillo
Country Director:	Maryanne Sharp	Michel Kerf
Director:	Ede Jorge Ijjasz-Vasquez	Anna Wellenstein
Practice Manager:	Anna Wellenstein	David N. Sislen
Task Team Leader(s):	Ana Campos Garcia	Mirtha Liliana Escobar Saenz, Rashmin Gunasekera, Mary Elinor Boyer
ICR Contributing Author:		Diana Cubas



I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

1. The Nicaragua Catastrophe Risk Insurance Project (P149895) (the Project) was implemented in a complementary manner to the Central America and Caribbean Catastrophe Insurance Project (P149670) that was financed by a World Bank administered Multi-Donor Trust Fund (MDTF).¹ The credit proceeds under the Project were used to finance entrance fees and premium payments to the Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company (CCRIF SPC), while proceeds from the Central America and Caribbean Catastrophe Risk Insurance Project were used to finance the CCRIF SPC's risk transfer and retention expenditures. These complementary mechanisms for capitalization enabled the CCRIF SPC to offer more affordable catastrophe coverage options and to build its capital for the sustainable continuation of its operations.

2. **Project Background.** The Honduras and Nicaragua Catastrophe Risk Insurance Project was approved on June 18, 2014, including a credit in an amount of SDR 7.8 million (US\$12 million equivalent) to the Republic of Honduras (Credit No. 55300-HN), and credit in an amount of SDR 7.8 million (US\$12 million equivalent) to the Republic of Nicaragua (Credit No. 55310-NI). The objective of the Project was to enable Honduras and Nicaragua to access an efficient sovereign risk insurance associated with disasters, such as tropical cyclones, earthquakes, and excess rainfall. However, the deadline for the signing of the credit agreement was not met by Honduras, resulting in the World Bank withdrawing the credit offer to the Republic of Honduras on January 18, 2017. As a result, the Project Development Objective (PDO) was adjusted, and all references to Honduras were removed from the Project, including in the PDO.

A. CONTEXT AT APPRAISAL

Context

3. **Country Context.** Both Honduras and Nicaragua were, and remain, highly vulnerable to the adverse impacts of earthquakes, hurricanes and other major hydro-meteorological hazards like excessive rainfall, failing rains and their secondary impacts of floods and landslides. High levels of vulnerability to natural hazards aggravate the significant poverty and development challenges already experienced by Central American countries, including Honduras and Nicaragua. In 2012, Honduras and Nicaragua accounted for some of Latin America's lowest rates of Gross National Income per capita – at US\$2,120 and US\$1,650 respectively. Additionally, both countries experienced some of the highest rates of poverty in the region. In Honduras, 60 percent of the country's population of 7.9 million citizens lived below the poverty line in 2010, a worrying figure as it represents an increase from the previous four years. In Nicaragua, in 2010, approximately 42 percent of the country's 5.9 million inhabitants lived below the poverty line and one out of every seven lived in extreme poverty. In socio-economic contexts such as those of Honduras and Nicaragua, the negative impacts of catastrophic events had particularly extreme effects on the poor, who are the least able to cope with reduced access to, and quality of, public services resulting from limited budgets and higher public debt levels incurred and transferred onto future generations.

¹ This was the first Central America and Caribbean Catastrophe Risk Insurance Project and was approved by the World Bank on June 30, 2015 in the amount of US\$19.5 million. It has since received additional financing (AF) in the amount of US\$23.75 million for a total project amount of US\$43.25 million, with a project closing date of December 31, 2021.



4. Before appraisal, Honduras and Nicaragua had made significant institutional advances to improve their disaster risk management capacities. Both countries had passed legislation, developed policies, and created institutions to enable more efficient emergency management. Efforts were also underway to increase national capacities to model risk and utilize hazard data to inform public planning and development processes. As a result, fewer lives are lost today per hazard event than in past decades. Nevertheless, Honduras and Nicaragua remained fiscally vulnerable to disasters. Disaster losses and damages were associated with large fiscal costs and represented a significant and explicit contingent liability for these two countries and their national budgets. The limited ability of Honduras and Nicaragua to absorb fiscal shocks was further related to restricted capacity for external borrowing and limited use of financial tools to manage fiscal volatilities. It was determined that Honduras and Nicaragua would benefit from applying a comprehensive budget protection strategy to safeguard fiscal accounts and balances, while allowing for rapid resource mobilization in the wake of a disaster. Both countries could increase their disaster resilience by utilizing market-based risk transfer instruments combined with other financial mechanisms. Catastrophe risk pooling at the regional level was considered a cost-efficient means to safeguard against extreme events – as it enables the aggregation of risk into larger, more diversified portfolios thereby resulting in more affordable premiums and wider access to international reinsurance and capital markets. At the time of appraisal, it would have been cost prohibitive for either country to seek sovereign parametric coverage from the international financial market. Insurance from the CCRIF SPC would mobilize quick liquidity after a disaster, through its payouts, which would contribute to the overall reduction of the financing gap to address Honduras and Nicaragua’s contingent liability associated with natural hazards.

5. **Disaster Vulnerability.** Between 1990 and 2008, the total damages and losses associated with large-scale disasters (e. g. earthquakes and hurricanes) in Central America were estimated at over US\$21 billion. While earthquakes are associated with the highest probable maximum loss per event, adverse hydrometeorological events are by far the most frequent in Honduras and Nicaragua. From 1990 to 2012, it is estimated that annual economic losses due to weather-related disasters (e.g., hurricanes, tropical storms, floods and landslides) was equivalent to 2.8 percent and 1.8 percent of Gross Domestic Product (GDP) for Honduras and Nicaragua respectively. Public sector assets in the health, education, water, transport, agricultural and infrastructure sectors as well as in housing often incur the majority of damages associated with catastrophic events. Such events contributed to large fiscal deficits and debt accumulations requiring public debt restructurings while at the same time limiting country abilities to finance reduction and mitigation activities.

6. In Nicaragua, the Managua earthquake (1972) generated damages and losses equivalent to 93 percent of GDP, while Hurricane Felix (2007) caused damages and losses equivalent to 14.4 percent of GDP; in addition, heavy rains of 2007 in Nicaragua's north-western region and the 2011 Tropical Depression 12E eliminated 3 percent and 6.8 percent of GDP, respectively. In Honduras, Hurricane Mitch (1998) represented the worst disaster in the country’s recent history, affecting 90 percent of its territory, leading to over 5,700 deaths and 8,000 missing as well as displacing nearly half a million individuals. The overall damage amounted to 81 percent of GDP. Subsequent extreme hydrometeorological events since Hurricane Mitch would suggest that Honduras’ disaster vulnerability is on the rise. Between 1980 and 2010, over 15,000 people were killed and over 4 million were affected by disasters, while economic damage amounted to US\$4.5 billion.²

² World Bank. 2014. Project Appraisal Document Honduras and Nicaragua Catastrophe Risk Insurance Project - P149895 (Report No: PAD994). Washington, D.C.: World Bank Group.



7. **Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company (CCRIF SPC).** CCRIF is the world's first multi-country catastrophe risk pooling mechanism that provides cost-effective and fast-disbursing financial liquidity in the wake of a disaster. It was created in 2007 by the Caribbean Community and operationalized through a World Bank-Administered MDTF³ to provide parametric insurance for hurricanes and earthquakes, and since 2014, for excess rainfall. CCRIF was restructured into a segregated portfolio company (SPC) and renamed CCRIF SPC in 2014 and extended into Central America in 2015. A new MDTF program was established to support the expansion of the CCRIF SPC to Central America and the Caribbean. The CCRIF SPC enables countries to pool their risk, and receive payouts triggered when certain predefined loss thresholds are met.

8. **IDA funding.** At appraisal, the Project was expected to be financed by two International Development Association's (IDA) credits for a total amount of US\$24 million, to finance the cost of participation fees (entrance fees) and premium payments related to the CCRIF SPC membership for Honduras (for seven years) and Nicaragua (for four years). This included Regional IDA financing in the amount of amount of US\$16 million and national IDA (IDA recommitted as a Credit) in the amount of US\$8 million.

9. **Rationale for World Bank Engagement.** The World Bank was well positioned to assist Nicaragua (and the Council of Ministers of Finance of Central America and the Dominican Republic (COSEFIN) and the Caribbean Community (CARICOM) countries generally) in the design and implementation of the Project given its: (a) technical expertise and past experience in establishing regional risk pooling mechanisms, (b) long engagement with Ministries of Finance, as well as (c) convening power of multiple stakeholders. The World Bank's engagement with the Nicaragua Catastrophe Insurance Project was built upon the Bank's role in supporting CARICOM countries to successfully establish the CCRIF in 2007, its reputation of impartiality in international markets as well as its in depth knowledge of the Disaster Risk Management (DRM) needs Nicaragua was facing at the time of appraisal. The Project would support Nicaragua to achieve its priority of reducing and better managing the fiscal effects of catastrophic events arising from natural hazards. Additionally, the World Bank was responding to the Government of Nicaragua (GoN)'s request for support to determine cheaper options for catastrophe risk insurance coverage to have access to quick liquidity following disaster events.

³ The World Bank-administered Multi-Donor Trust Fund (established by contributions from the United States, Canada, the European Union (EU), and Germany, through its Federal Ministry for Economic Cooperation and Development (BMZ) and Kreditanstalt für Wiederaufbau (KfW) totaling US\$68 million supports CCRIF SPC in providing disaster risk insurance and related Technical Assistance (TA) programs to the Central America and Caribbean subregions. Specifically, the MDTF supports insurance payouts (US\$22 million), reinsurance payments (US\$22 million), participation fees (US\$7 million), and TA, including model and product development (US\$12 million). Donor support for the CCRIF SPC has been essential to ensuring its financial viability and long-term sustainability. **Since its creation, the CCRIF SPC has played a critical role in enhancing its members' financial resilience to disasters caused by natural hazards, with payouts totaling just over US\$254 million to 20 member countries in the Caribbean and Central American subregions. All payments have been released within 14 days of the qualifying event. Governments and donors, having witnessed the impacts of extreme geophysical and climate events throughout the past decade, particularly in the summer of 2017 and later months of 2020, have been encouraged by the CCRIF SPC's rapid response and payouts.**

Central America and Caribbean Catastrophe Risk Insurance Program Multi-Donor Trust Fund				
Recipient Executed (RE) activities Central America and Caribbean Catastrophe Risk Insurance: Effectiveness Package for (P149670)		Bank Executed (BE) activities DRFI TA Strengthen DRFI Capacity in CA countries (P157413)		Nicaragua-IDA Funds Nicaragua Catastrophe Risk Insurance Project (P149895) US \$ 12 million
US\$54.7 million		US\$8.4 million		
Component 1	Component 2	Component 3	Component 4	
Finance parametric insurance associated with risks related to geophysical events for COSEFIN countries	Finance parametric climate risk insurance for COSEFIN countries	Finance parametric climate risk insurance for CARICOM countries	Technical assistance and capacity building for Disaster Risk Financing and Insurance (DRFI) and Project supervision	Payment of annual insurance premiums to the CCRIF and Nicaragua
Funding CCRIF SPC operating costs, training and technical assistance activities including, participation fees to join CCRIF, reinsurance costs, payouts (within CCRIF's risk retention), capacity building, and the development, modification and implementation of insurance products.			Objective 1: Strengthen the financial capacity to respond to disasters Objective 2: Promote efficiency and transparency of post – disaster public spending	Financing of CCRIF SPC premiums for Nicaragua
Implemented by CCRIF			Implemented by the World Bank	Implemented by the Ministry of Finance

Theory of Change (Results Chain)

10. The Project Appraisal Document (PAD) did not include a Theory of Change (ToC). However, for the purposes of this Implementation Completion and Results Report (ICR), a ToC is derived from the project description in the PAD. The problem statement envisaged at appraisal was that Honduras and Nicaragua were highly exposed and vulnerable to natural hazards and fiscally vulnerable to disasters. The overall intent of the Project was for Honduras and Nicaragua to increase its disaster resilience by benefiting from access to critical risk transfer instruments within its comprehensive budget protection strategy against natural hazards to safeguard fiscal and account balances, while allowing for rapid mobilization of liquidity in the wake of a disaster. This would be achieved through providing them the entrance fees to join the CCRIF SPC and to provide them assistance to purchase the catastrophe insurance coverage offered by the CCRIF-SPC. For the Project, the outcomes intend to measure (i) optimized insurance coverage coming from a better understanding of the product and better understanding of hazard risk (based on the premise that CCRIF SPC offered one of the only affordable options for sovereign risk transfer and that the coverage selected in the first year of membership was inadequate relative to the financial gap); and (ii) at the beginning of the Project, it was expected that, with the diversification and pooling, Government of Nicaragua (GoN) can receive a better product for the same premium.

Activities	Outputs	Outcomes	PDO	Long-term Outcome
Component 1 Payment of entrance fee to the CCRIF for Honduras and Nicaragua	Access of Honduras and Nicaragua to CCRIF Policies for insurance coverage for earthquakes and tropical cyclones	<ul style="list-style-type: none"> Honduras and Nicaragua as members of CCRIF are eligible for catastrophe risk coverage 	Enabled access of Honduras and Nicaragua to efficient sovereign risk insurance	Increased Government Financial capacity to apply comprehensive budget allocation to



<p>Component 2 Payment of annual insurance premium to the CCRIF for Honduras and Nicaragua</p>	<p>Access to lower premium rates than the simulated price for comparable risk insurance purchased individually in the market</p>	<ul style="list-style-type: none"> • CCRIF premiums are lower premiums for Honduras and Nicaragua are lower than the simulated price for comparable earthquake and tropical cyclone risks insurance purchased individually in the market • Quick access to liquidity with payment within a month of the occurrence of a covered (insured) event • CCRIF policies provide higher levels of insurance coverage and/or lower attachment point (insurance deductible) for a given premium amount 	<p>associated with tropical cyclones, earthquakes, and/or excess rainfall</p>	<p>respond quickly and effectively to the impacts of disaster and climate related shocks.</p>
---	--	---	---	---

Critical Assumptions: (i) Procurement processes advance smoothly and have adequate market response, and in particular, the CCRIF SPC is able to place reinsurance contracts without substantial cost increases compared to budget projections; (ii) countries honor their participation agreements once signed and there are no subsequent regulatory or legal changes that impede their continued ability to purchase insurance from the CCRIF SPC, and (iii) some outcomes are contingent on the occurrence of eligible triggering events that are beyond the control of the proposed project (for example, some events may cause damage and no payout is triggered because the event did not meet the pre-agreed threshold).

Project Development Objectives (PDOs)

11. **The Project Development Objective (PDO),** as stated in the PAD was to enable the access of Honduras and Nicaragua to efficient sovereign risk insurance associated with tropical cyclones, earthquakes, and/or excess rainfall.

Key Expected Outcomes and Outcome Indicators

12. **The Project had one outcome indicator linked to coverage:** Honduras and Nicaragua are eligible for catastrophe risk coverage and have received payment in the case of a covered (insured) event.



Components

13. Component 1: Payment of the entrance fee to the CCRIF for Honduras and Nicaragua. The objective of this component was to assist Honduras and Nicaragua to join the CCRIF by financing their entrance fees. This fee was equivalent to the first year's insurance premium for each of the two participating countries.

14. Component 2: Payment of annual insurance premium to the CCRIF for Honduras and Nicaragua. The objective of this component was to assist Honduras and Nicaragua to purchase the catastrophe insurance coverage offered by the CCRIF during the first three years of membership. Annual insurance premiums would initially cover risk associated with tropical cyclone (wind and storm surge) and earthquake during Year 1. Upon availability of an additional excess rainfall product in Year 2, Component 2 may also be used towards financing annual insurance premiums meant to cover against excess rainfall. Every year, members would have the choice of selecting the exact mix of insurance coverage (i.e., how much coverage for which event) depending on country prioritization

B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)

15. The Nicaragua Catastrophe Risk Insurance Project underwent two restructurings:

- **A Level one restructuring was approved in May 2017 (Report No.RES24760).** This restructuring was requested to reflect the withdrawal of the credit offer to the Republic of Honduras (Credit No. 55300-HN) as of January 18, 2017, and extend the closing date from June 30, 2019, to June 30, 2021. This required an adjustment to the PDO, effectively removing Honduras from the PDO. The restructuring also made changes to the PDO referring to geophysical events more broadly (initially the PDO included only references to earthquake).
- **A Level two restructuring was approved in July 2019 (Report No.RES37073)** to increase the percentage of expenditures to be financed under Category 2 to enable the project to finance 80 percent of the payment for insurance premiums in Year 5 and 70 percent in Year 6 of project implementation, and to update the disbursement estimates.

Revised PDOs and Outcome Targets

Changes under the first restructuring

16. **Changes in PDO.** The revised PDO, as approved in the first restructuring, was to enable access of Nicaragua to efficient sovereign risk insurance associated with geophysical and climate-related events.

17. **Change of Project Name.** The name of the Project was changed to "Nicaragua Catastrophe Risk Insurance Project" to reflect that Honduras is no longer part of the Project.



18. **Change in Financing Plan.** The Financing plan was modified to reflect the withdrawal of IDA Credit No. 55300-HN to Honduras in the amount of SDR 7.8 (US\$12 million equivalent). The new total amount of the Project was changed to US\$12 million.

Revised PDO Indicators

19. **Change in Results Framework.** The Project's Results Framework was adjusted under the first restructuring to reflect the change in the PDO and the extension of the closing date. The wording of the PDO indicator and intermediate indicators was modified to reflect that Honduras was no longer a part of the Project. The end target dates were aligned with the proposed closing date of June 30, 2021.

Revised Components

20. **Change in components and costs.** Under the first restructuring, Component 2 was modified to: (i) allow for the financing of annual insurance premiums for Nicaragua for two additional years (premiums would be financed on a decreasing basis for Nicaragua in the final two years); and (ii) expand the coverage from only earthquake to geophysical events more broadly. Depending on the country's risk profile and priority needs, Nicaragua had the option to select the amount of insurance coverage per type of risk annually.

Revised Component 1: Payment of the entrance fee to the CCRIF for Nicaragua (US\$3.0 million). The objective of this component was to assist Nicaragua to join the CCRIF SPC by financing their entrance fee. The fee is equivalent to the first year's insurance premium, which was estimated to be US\$3.0 million.

Revised Component 2: Payment of annual insurance premium to the CCRIF for (US\$9 million). The objective of this component was to assist Nicaragua to purchase the catastrophe Insurance coverage offered by the CCRIF SPC for four years. Annual insurance premiums were to be financed on a decreasing basis for Nicaragua in the final two years. Risk coverage could be associated with tropical cyclone and/or earthquake risk in the first years. Upon availability of an additional excess rainfall product offered by the CCRIF SPC, financing may also be used towards coverage against excess rainfall. Every year, Nicaragua had the choice of selecting the amount of insurance coverage per peril, depending on country risk profile and priority needs.

21. **Reallocation between disbursement categories.** Under the first restructuring, credit funds were reallocated between disbursement categories to finance annual insurance premiums for Nicaragua. Component one was originally envisaged to fund the entrance fees for two countries. After Nicaragua's entry fee was paid and given that no additional disbursements were anticipated under Category 1, the remaining balance (SDR1.23 million) was reallocated to Category 2. The percentage of expenditures to be financed were also modified to allow financing of 100 percent of premiums during Years 3 and 4, and financing of 50 percent of premiums during Years 5 and 6.

22. **Change in disbursement estimates.** Due to the extension of the closing date and taking into account changes in the SDR exchange rate, the disbursement estimates were revised.



23. **Change in the percentage of expenditures to be financed under the disbursement categories.** The percentage of expenditures to be financed from the Credit was modified under the second restructuring to allow for financing of 80 percent of premiums during Year 5 and 70 percent during Year 6, based on the remaining funds available under the Credit. The revised disbursement estimates were calculated, assuming a constant premium of US\$2.3 million for years five and six. In case there was an increase in the premium during Year six, the amount available to finance the premium costs would be limited to the undisbursed balance in the Credit account at the time of payment. Any difference would be covered by government budget allocations.

Other Changes

24. **Change in implementing agency.** Under the first restructuring, the Ministry of Finance of Honduras was removed as an implementing agency under the Project.

25. **Change in implementation schedule.** The Project's implementation schedule was revised under the first restructuring to reflect the extension of the closing date from June 30, 2019 to June 30, 2021.

Rationale for Changes and Their Implication on the Original Theory of Change

26. **Rationale for the first restructuring.** The rationale for this restructuring was to reflect: (i) the withdrawal of the Credit offer to Honduras; and (ii) the availability of additional sovereign risk insurance products for Nicaragua to account for the development of new risk insurance products. The project did not have a theory of change at appraisal.

27. **Rationale for second restructuring.** As part of the renewal process, Nicaragua conducted a review of the policies offered by CCRIF SPC to: (i) select parameters allowing it to balance affordability and frequency of payouts; (ii) limit insurance coverage to a fraction of its potential losses, using CCRIF SPC as a safety net, rather than full insurance; and (iii) ensure that parametric contracts clearly explain the terms of the insurance policy provided. In parallel, CCRIF SPC's technical assistance helped Nicaragua to fully understand the risk models, products, policy benefits and limitations, particularly that the policies are not meant to cover entire losses faced, but rather to guarantee a minimum level of liquidity in the case of a major adverse natural event. As agreed during appraisal, the Ministry of Finance allocated funds from the national budget towards a portion of the premium; however, Nicaragua is unable to cover the required 50% of the premium for the selected insurance policies. Without an increase in the percentage financed from Credit proceeds, the Ministry of Finance would have to reduce coverage and/or limit the number of policies purchased from the funding available under the IDA Credit.

II. OUTCOME

A. RELEVANCE OF PDOs

Assessment of Relevance of PDOs and Rating

Rating: High



28. The Project was consistent with the World Bank Group’s Country Partnership Strategy 2013-17 for Nicaragua, in which DRM is a critical theme for both countries. The Project also aligns with the World Bank’s Country Partnership Framework (CPF) for the period FY18 to FY22.⁴ One of the CPF objectives is improved resilience to macroeconomic volatility, with an indicator of an increase in the number of instruments that provide access to liquidity to immediate response after a disaster on time. Project components were also designed in the context of the broader Central America and the Caribbean Catastrophe Risk Insurance Project (P149670) and fully complement its objectives and activities. The Project contributed the World Bank’s dual goals of ending extreme poverty and promoting shared prosperity, by helping the GoN achieve its priority to reduce and better manage the fiscal effects of catastrophic events arising from tropical cyclones, earthquakes, and excess rainfall. Strengthening the capacity of Ministries of Finance to fiscally manage disaster risk will safeguard efforts which work towards achieving the World Bank Group’s dual goals. Similarly, it furthers the World Bank’s approach of Maximizing Finance for Development (MFD) by systematically leveraging private capital mobilization for CCRIF reinsurance costs to support Nicaragua’s development goals.

29. The objective of the Project was to enable access of Nicaragua and Honduras to efficient sovereign risk insurance associated with geophysical and climate-related event, then later revised to only include Nicaragua. For the PDO, sovereign risk insurance included the CCRIF SPC. As Nicaragua is engaged in finalizing a Disaster Risk Financing (DRF) strategy with a risk layering approach of various instruments—including sovereign risk insurance—to strengthen its financial protection to shocks, and the World Bank is committed to strengthening financial protection in Nicaragua’s Country partnership framework (2013-17 and 2018-22), the relevance of the PDO is considered substantial.

30. Nicaragua maintained access to efficient sovereign risk insurance associated with geophysical and climate-related events in a way that is in-line with the country’s proposed National Strategy for DRF. In 2020 Nicaragua prepared its Strategy for Financial Protection against Disaster Risk and the Adverse Effects of Climate Change. The Strategy is currently undergoing approvals and it expected to be published and adopted during 2022. For the Ministry of Finance, maintaining fiscal and public debt sustainability has been a priority, in particularly in relation to disaster risk and the adverse effects of climate change. The Strategy aims at defining a framework on the planning and access to financial instruments to DRM, to reduce fiscal vulnerability and promote the recovery of the post-disaster economy. Its four strategic objectives are to: i) Assess and quantify disaster risk and the adverse effects of climate change; ii) Evaluate and implement financial instruments for disaster risk retention and transfer and climate finance; iii) Promote the inclusion of disaster risk analysis and climate change adaptation in budgetary processes and public expenditure monitoring; and iv) Strengthen the legal and institutional framework for Disaster Risk Management, including the development and implementation of an operational plan. The strategy includes a mix of instruments including financial instruments for disaster risk retention (budget resources, The National Disaster Fund, Contingent Credit lines, reallocation of resources from credit lines, and external credits) and for risk transfer (systematic insurance of public assets, parametric insurance), as well as climate finance instruments.

31. Nicaragua became the first COSEFIN member country to join the CCRIF SPC after signing the Participation Agreement with CCRIF on April 18, 2015 and purchased tropical cyclone and earthquake policies. Since then, Nicaragua has been a steady member and the GoN has not only increased its financial commitment to the facility by purchasing higher levels of coverage, but it has also enhanced its knowledge of the risk models, products, and policy benefits and

⁴ Report No. 123026-NI , Issued February 12, 2018



limitations. As a result, disaster risk financing remains one of the government's top priorities, as evidenced by the last two years' decreases in the percentage of the premium financed by the credit and the consistent budgeting by the Ministry of Finance of the balance. Although the PDO was largely focused on accessing insurance products, it also helped Nicaragua toward a more proactive approach focused on planning financial responses in advance, rather than relying on fundraising efforts in the aftermath of disasters.

32. The Project also contributed to Nicaragua's efforts to achieve its national priorities set out in the regional Central America Integration System (SICA) agreements reflected in the Comprehensive Central American Disaster Risk Management Policy (PCGIR). Project outcomes are important to Nicaragua's Climate Change and Disaster Risk Reduction Policy (2016-2030), by ensuring timely access to disaster response and recovery funds, and to the National Sustainable Development Plan (2016-2030) in support of its policy objectives to: (i) institutionalize climate change and disaster risk governance, and build institutional capacity and awareness; (ii) strengthen post-disaster systems in planning, preparedness, response and recovery; (iii) promote and ensure strengthened resilience and adaptive capacity to climate related, natural and man-made hazards.

B. ACHIEVEMENT OF PDOs (EFFICACY)

Rating: Substantial

33. The primary objective of the Project was to enable access of Honduras and Nicaragua to efficient sovereign risk insurance. The achievement of the PDO is evaluated against one outcome indicator: Honduras and Nicaragua as members of CCRIF are eligible for catastrophe risk coverage and have received payment within a month of the occurrence of a covered (insured) event. Supporting the objective were intermediate outcomes measured by two indicators: (i) policies provide increasing insurance coverage and/or lower attachment point (insurance deductible) for a given premium amount; and (ii) CCRIF premiums for Honduras and Nicaragua are lower than the simulated price for a comparable purchased individually in the market.

34. Despite the initial delays in implementation activities, the Project achieved its stated objectives as measured by the key outcome and intermediate indicators. In 2016, progress towards achieving overall implementation was delayed due to the lack of progress in the implementation of Project activities in Honduras due to delays in Honduras signing the Financial Agreement 18 months after Project approval by the Board, which eventually led to the notification to the Recipient of the withdrawal of offer of the IDA Credit. Following the withdrawal of the Credit to Honduras on January 18, 2017, through a Level one Restructuring, overall implementation was reassessed based on progress achieved in Nicaragua. A split rating is used to assess achievement across the entire project life against both, the original and revised PDOs and outcomes. Table 1 presents PDO achievements at the time of the first restructuring in 2017 against achievements at the end of the Project.

Table 1. Overview of PDO Achievements

	Original Objectives and targets without restructuring			Revised objectives and/or targets with restructuring		
	Baseline	Target	At time of Restructuring	Baseline	Target	End of Project
PDO indicator						
Honduras and Nicaragua as members of CCRIF are eligible for catastrophe risk coverage and have received payment within a month of the occurrence of a covered (insured) event	Honduras	0	100%	0		
	Nicaragua	0	100%	100%	0	100
Intermediate Indicators						
Policies provide increasing insurance coverage and/or lower attachment point (insurance deductible) for a given premium amount	Honduras	N	Y	N		
	Nicaragua	N	Y	Y	N	Y
CCRIF premiums are lower than the simulated price for a comparable coverage purchased individually in the market	Honduras	Y	Y	Y		
	Nicaragua	Y	Y	Y	N	Y

35. **The Project achieved its PDO and intermediate outcomes.** Nicaragua achieved its outcome of accessing efficient sovereign risk insurance associated with geophysical and climate-related events. Efficient sovereign risk insurance is defined as cost effective in comparison to other market-based insurance products. At the time of restructuring, implementation activities towards achievement of the PDO for Nicaragua were achieved. However, due to the lack of progress in the implementation activities, since Honduras did not sign the Financing Agreement, full achievement of the PDO was not met. Therefore, without restructuring, the achievement of the PDO is rated **Negligible**. After the Level one restructuring, once Honduras was dropped from the Project, overall implementation was reassessed based only on progress for Nicaragua, which was fully achieved throughout the Project life. Therefore, after the Level two restructuring, the achievement of the PDO is rated **Substantial**.

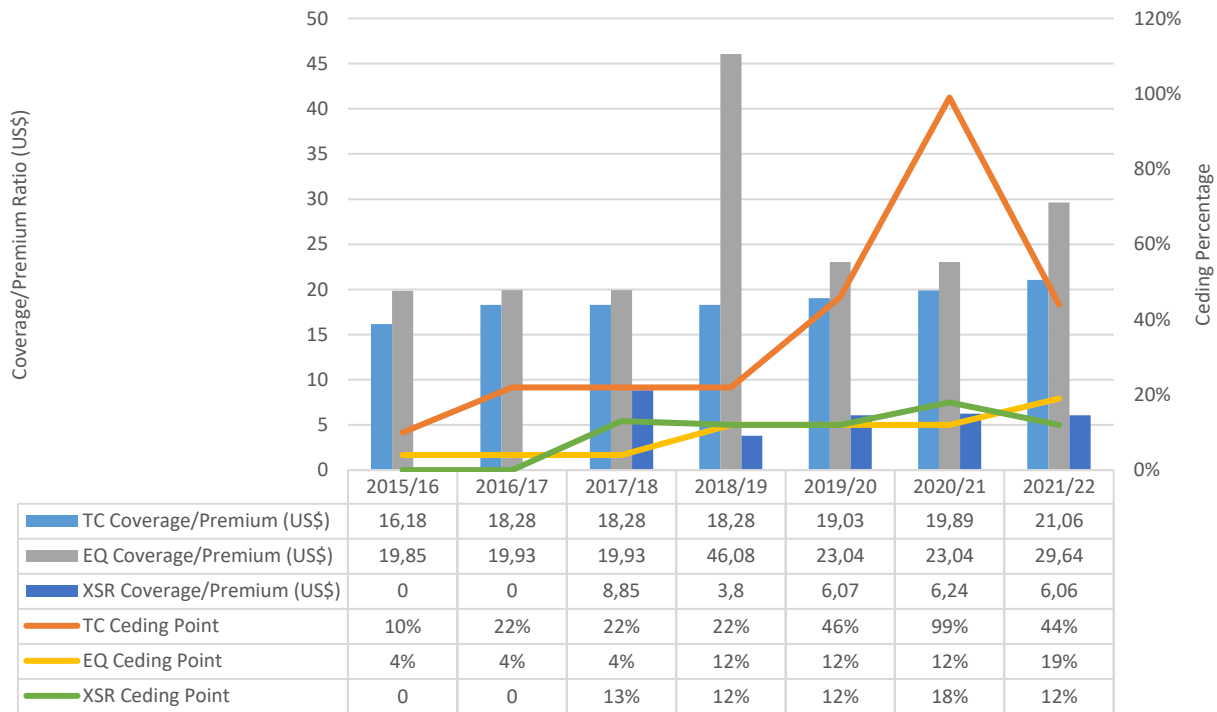
36. Nicaragua became the first COSEFIN country to join the CCRIF SPC after signing the Participation Agreement on April 18, 2015. Nicaragua decided to subscribe to an annual insurance policy starting July 1, 2015 for US\$1 million, equally divided between earthquake and tropical cyclone coverage. At that time Nicaragua requested: (i) a payment of US\$1 million to the CCRIF SPC from Component 1 of the Credit to cover the cost of the Entrance Fee to the CCRIF SPC; (ii) and a payment of US\$1 million to the CCRIF SPC from Component 2 of the Credit to cover the cost of the annual insurance premium.

37. During the life of the Project, the GoN renewed its CCRIF SPC policy for earthquake and tropical cyclone policies for seven consecutive years and for the excess rainfall policy coverage for five years. By the end of the Project in June



2021, the excess rainfall policy choice provided a coverage limit of US\$3 million, with a premium of US\$0.5 million. The earthquake coverage limit increased by 29 percent from US\$23 million to US\$29.6 million. For the tropical cyclone policy, the government chose to increase the exhaustion point while reducing the premium to the 2019/20 level. This resulted in a decrease in coverage limit by 48 percent (from US\$32.3 million to US\$16.8 million) and an increase in the exhaustion point by 16 percent (from US\$34.6 million to US\$40.2 million).

Nicaragua Risk Insurance Coverage and Ceding Point 2015-2022



38. On June 1, 2020, the GoN renewed the earthquake, tropical cyclone, and excess rainfall policies for the policy year 2020/21. Nicaragua benefitted from the 50 percent discount offered by the CCRIF SPC to support its members’ COVID-19 response. As such, Nicaragua received coverage equivalent to a premium of US\$3.35 million for a premium payment of US\$2.3 million (a 45.8 percent increase in total coverage). The ability of the CCRIF SPC to provide coordinated assistance to policyholders for an unanticipated covariate risk was widely appreciated by members who were struggling to maintain CCRIF coverage amidst tightening fiscal space and from COVID-19 impacts.

39. The two intermediate results were achieved: (i) CCRIF policy premiums for Nicaragua provided increasing insurance coverage and/or lower attachment point for a given premium amount; and (ii) CCRIF premiums for Nicaragua are lower than the simulated price for a comparable policy purchased individually in the market. To show this for Policy Year 2020/2021, the values were calculated using the parameters for years 2015 for earthquake (EQ), tropical cyclone (TC), Excess Rainfall (XSR) as a baseline. Results show that for two (EQ and XSR) of the three policies, the insurance provides higher coverage and lower attachment points:



- For TC, the change in coverage for Policy Year 2020/21 (based on the premiums of Policy Year 2015/16) is -5.95 percent (i.e., a decrease), and the change in the attachment point for Policy Year 2020/21 (based on the premiums of Policy Year 2015/16) is 52 percent (i.e., an increase).
- For EQ, the change in coverage for Policy Year 2020/21 (based on the premiums of Policy Year 2015/16) is 45.056 percent (i.e., an increase), and the change in the attachment point for Policy Year 2020/21 (based on the premiums of Policy Year 2015/16) is -62.84 percent (i.e., a decrease).
- For XSR, the change in coverage for Policy Year 2020/21 (based on the premiums of Policy Year 2015/16) is -31.4 percent (a decrease), and the change in the attachment point for Policy Year 2019/20 (based on the premiums of Policy Year 2015/16) is 122.89 percent (i.e., an increase).

40. The CCRIF SPC has made five payouts to Nicaragua, allowing the country to respond effectively to the effects of disasters. In 2016, the GoN benefited from the first payout from the CCRIF SPC for US\$500,000 related to the magnitude 6.1 earthquake that occurred on June 9, 114 km (71 miles) NW of Managua. That same year, Nicaragua received another payout of US\$1.1 million following Hurricane Otto, which hit Nicaragua on November 25, 2016. In November 2020, after Hurricane Eta, the CCRIF SPC made payouts totaling US\$10.7 million to Nicaragua under the tropical cyclone (US\$7.8 million) and excess rainfall (US\$2.9 million) policies. In addition, after Hurricane Iota, CCRIF SPC paid out US\$19.9 million under the tropical cyclone policy. All payments were made within 14 days of the event, evidencing that efficient sovereign insurance is an important instrument to ensure short-term liquidity in the aftermath of a disaster, thus enabling the government to respond to the emergency until other funding is secured.

41. Nicaragua's tropical cyclone and excess rainfall policies played a key role in obtaining resources to respond to the emergency after Hurricanes Eta and Iota. Resources from the CCRIF SPC were used to: (i) provide hygiene kits, blankets, food and other relief materials to 38,117 families that were placed in shelters; (ii) remove soil and trees from main roads and highways; (iii) rehabilitate the main sections of the national road network to facilitate transit of people and trade flows; (iv) finance logistics costs to mobilize personnel to carry out the damage and loss assessment; and (v) rehabilitate the "Nuevo Amanecer" Hospital in the Bilwi area located in the North Caribbean Autonomous Region, which was one of the most affected areas.

42. The second indicator target, namely that CCRIF premiums for Nicaragua were lower than the simulated price for a comparable policy purchased individually in the market, was also achieved. The cost of risk transfer to international markets depends on many factors, including the risk level of the portfolio as a fraction of the size of the portfolio. The pooling of risks generates diversification benefits that are reflected in reduced insurance premia. The real price of insurance coverage (insurance premium rate) accessed by Nicaragua under the Project through the CCRIF SPC resulted in 41 percent savings on average, compared to the simulated market price that Nicaragua would have been able to obtain had it secured disaster insurance individually.

43. During the final year of the Project's implementation, the GoN covered 30 percent of the premium payment, and the IDA credit covered the remaining 70 percent (after applying the 50 percent discount), bringing disbursements to 97 percent.⁵ As part of the Project's sustainability measures, the percentage of the premium financed by the IDA credit has

⁵ The 3 percent remaining balance (US\$336,602.61) is due to the fact that Nicaragua completed its 6-year eligibility for the Project in Year 20/21.



decreased over the last two years, with the Ministry of Finance consistently budgeting for the balance. The most recent renewal for year 2021/22 was 100 percent financed by the GoN, because of its continued commitment to disaster risk management, which also underscores the Project's sustainability. The GoN has indicated that it plans to continue purchasing the CCRIF SPC coverage.

Justification of Overall Efficacy Rating

44. The Project provided financing to allow Nicaragua to join the CCRIF SPC and for the payment of insurance premiums to enable access to efficient sovereign risk insurance associated with geophysical and climate-related events. Continuous insurance coverage was provided without a lapse in payments throughout project implementation. The payouts were received within 14 days of the events following the insured events, demonstrating the effectiveness of the CCRIF SPC insurance in reducing Nicaragua's financial vulnerability to natural hazards. Moreover, it demonstrates that Catastrophe Risk pooling at the regional level is a cost-efficient means to safeguard against extreme events, as it enables the aggregation of risk into larger, more diversified portfolios and thereby resulting in more affordable premiums and wider access to international reinsurance and capital markets. While the original targets were not met due to Honduras not signing the Project, the outcome for Nicaragua was fully achieved before and after restructuring. Therefore, the Project Efficacy is rated moderately unsatisfactory before restructuring and satisfactory after restructuring.

C. EFFICIENCY

Assessment of Efficiency and Rating

Rating: Substantial

45. The analysis of economic efficiency undertaken at appraisal focused on the benefits resulting from Central American countries pooling risk, showing that Honduras and Nicaragua could reduce the cost of catastrophe risk insurance by 27 percent or 41 percent when transferring catastrophe risk with other COSEFIN states to the international reinsurance market – without and with joint reserves respectively. As a group, COSEFIN countries could reduce indicative commercial premiums paid by close to 45 percent should they chose to transfer risk through the CCRIF SPC.
46. However, since the economic analysis at appraisal stage focused mainly on outlining the benefits of risk pooling, and not for Nicaragua specifically, the economic analysis for the ICR focused its assessment on the benefits to Nicaragua specifically, as the revised PDO no longer included multiple countries. As Nicaragua received several payouts from the CCRIF SPC throughout the Project, the ICR analysis was able to outline an ex-post assessment of the economic benefits to Nicaragua as a result of the Project.
47. Since 2015, Nicaragua has purchased a total of 17 policies for three different types of hazards (tropical cyclones, earthquakes, and excessive rainfall) from the CCRIF SPC. Total payments in terms of gross premiums to CCRIF SPC have been close to US\$12 million, of which US\$4 million was financed by this project (Annex 4). In this period, four pay out triggering natural hazard events impacted Nicaragua. These events were the M6.1 earthquake in



June 2016, Hurricane Otto in November 2016, and Hurricanes Eta and Iota in November 2020. However, the direct payout benefit was manifold. The total amount of payouts received by the country within the indicated period amounts to approximately US\$32.3 million (Annex 4).

- 48. An ex-post economic analysis of the Project for the 2015-2021 period also indicates a very high internal rate of return. The results of the economic analysis conducted during project preparation are summarized in the Table 2 and in Annex 4. Several options have been considered including different discount rates. Initially a four percent discount rate was applied as recommended by Berrada, Mahul and Gollier (2017) for IDA countries. The analysis shows a baseline net present value of US\$16.1 million and shows that valuations at six and eight percent discount rates and other scenarios are also economically viable.
- 49. Based on the Internal rate of return at 61 percent for a long-term average, the project converted inputs (insurance premia) into results (financial protection) economically and the costs involved were reasonable. Sovereign catastrophe risk insurance can protect against sudden macroeconomic shocks that impact fiscal performance and a country’s long-term economic development with negative consequences. Catastrophe risk pooling at the regional level aggregates risk into larger and more diversified portfolios, with participants benefitting from cost savings through reduced insurance premia and access to international markets, which would not have otherwise been possible. The cost of risk transfer to international markets depends on many factors, including the risk level of the portfolio as a fraction of the size of the portfolio. The pooling of risks generates diversification benefits that are reflected in reduced insurance premia.

Table 2. Summary of Economic and financial analysis

	Discount rate (Percent)			Internal rate of return
	4	6	8	
Net Present Value	US\$16,106,400	US\$14,364,829	US\$12,818,702	0.6110

D. JUSTIFICATION OF OVERALL OUTCOME RATING

50. Formal approval was obtained for a change in the Project objectives for the Project with a credit of US\$24 million (US\$12 million for Honduras and US\$12 million for Nicaragua) when US\$3.5 million were disbursed. With the restructuring, the US\$12 million credit to Honduras was cancelled. The Project’s objective between 2014 and 2016 was negligibly achieved given that Honduras did not signed the Financing Agreement. After the first restructuring, the Project’s objective was changed to remove Honduras and only reflect Nicaragua: Enable access of Nicaragua to efficient sovereign risk insurance associated with geophysical and climate-related events.

Table 3. Split Rating and Overall Outcome Rating

	Original Objectives and targets without restructuring	Revised objectives and/or targets with restructuring
Relevance of PDO		High



Efficacy (PDO)	Modest	Substantial
Efficiency	Substantial	
Outcome ratings	Moderately Unsatisfactory	Satisfactory
Numerical value of ratings	3	5
Disbursement	US\$3.50 million	US\$7.05 million
Share of Disbursement (disbursement/final disbursement)	3.50/10.55 = 0.33 (or 33%)	7.05/10.55 = 0.67 (or 67%)
Weighted value of outcome rating (numerical value of ratings x share of disb.)	0.99	3.35
Final Outcome rating	Moderately Satisfactory (0.99 + 3.35 = 4.34, rounding it to 4)	

51. The objective of Nicaragua maintaining continuous insurance coverage without any lapse in payment of insurance premia was achieved fully throughout project implementation. Additionally, when the CCRIF SPC payouts were triggered, all payments were made within 14 days of the event, demonstrating sovereign insurance is an important instrument to ensure short-term liquidity in the aftermath of a disaster and enabling the GoN to respond to the emergency until other funding is secured. With the Relevance of the PDO rated High, Efficacy rated Substantial after restructuring, and the application of weights according to the share of disbursement, and Efficiency rated Substantial, the overall outcome is rated Moderately Satisfactory.

E. OTHER OUTCOMES AND IMPACTS (IF ANY)

Gender

52. Activities financed by the Project were not gender informed, however enabling Nicaragua to access catastrophe risk insurance through this Project benefited both women and men.

Institutional Strengthening

53. The Project contributed to an increased awareness in the Ministry of Finance of the economic and fiscal impacts of disasters in Nicaragua and the role that financial risk transfer can play as part of a broader national disaster risk reduction and management strategy. Each year government officials were presented with choices for CCRIF policy coverage, and a team of experts and stakeholders convened to study the risk models and make risk-informed decisions on coverage. The ongoing dialogue between CCRIF and officials from the Ministry of Finance, particularly at the time of policy renewal, helped to inform it of the country’s exposure to adverse natural events. These practices and the subsequent capacity building were a direct result of the project interventions. Through the Project, Nicaragua also got access to the complementary World Bank-executed Disaster Risk Financing Technical Assistance (DRF-TA), through which government stakeholders were able to strengthen their knowledge base of general DRF concepts, such as public financial management, data management and coordination, and deepening of the insurance sector to better reach vulnerable populations. Government officials have also had opportunities to participate in workshops and events organized or co-organized by the CCRIF on comprehensive disaster risk management and climate change adaptation that covered topics such as rainfall modeling and the economics of climate adaptation.



54. The DRF-TA helped implementation support efforts in Nicaragua to focus on ensuring the country's understanding of the risk models, products and policy benefits and limitations of CCRIF SPC products and other financial instruments. The Bank has supported Nicaragua in conducting public financial management assessments, implementing a budget classifier, and improving reporting requirements to promote the efficiency and transparency of post-disaster public spending. Post-project, the CCRIF SPC has and will continue providing technical assistance to Nicaragua to enhance its knowledge of the risk models, products, and policy benefits and limitations. In parallel, the World Bank's DRF TA will continue to support the diversification of instruments as part of its disaster risk financing strategy.

Mobilizing Private Sector Financing and Expertise

55. **Financing from this operation helped to establish the CCRIF SPC's new Central America portfolio**, which enabled Nicaragua to access private sector financing from the international reinsurance and capital markets. After the initial years during which Nicaragua was the only participant, there are now three active members and two more countries are in the final stage of joining. The CCRIF SPC participating countries, as part of a regional risk pooling and transfer initiative, provide greater diversification benefits, thereby gaining better access to more cost-effective coverage to better leverage market-based financing. The private insurance industry has been involved in the preparation and implementation of sovereign catastrophe risk pools, including CCRIF SPC. As such, the role of the private sector has contributed to making catastrophe risk pools cost-effective and has also contributed technical expertise to inform the design of effective risk pools.

Poverty Reduction and Shared Prosperity

56. Budget shortfalls and competing demands on limited resources following a disaster lead to emergency budget reallocations at the expense of public and social service delivery to citizens. Such reallocations threaten long-term development agendas and disproportionately affect the most vulnerable populations. The Project supported Nicaragua to achieve its priority of reducing and better managing the fiscal effects of catastrophic events arising from tropical cyclones, earthquakes, and excess rainfall. Quick access to liquidity following a covered event enabled the GoN to start response and recovery efforts quickly and reduce the risk of having to interrupt the delivery of social services to its population. As a result of the further DRF TA that Nicaragua has requested to build its national strategy for DRF, it has been working to conduct public financial management assessments, implement a budget classifier, and improve reporting requirements. Nicaragua has broadened the scope of its financial toolkit and has begun implementing a DRM and climate change budget classifier in 14 entities and critical sectors. This has helped the country trace and monitor resources allocated to DRM, providing valuable information for future budget allocations and the efficient use of public funding. Strengthening the capacity of the GoN to fiscally manage disaster risk through the Project is a step towards achieving the World Bank Group's twin goals.

Other Unintended Outcomes and Impacts

57. **Climate co-benefits.** The development and availability of climate-related products for tropical cyclones and excess rainfall contribute to climate adaptation action at the regional and national levels. For Nicaragua, as climate impacts are projected to intensify, climate considerations were incorporated in the project design and were sustained through the



constant improvement of climate related models. Focusing on climate finance through insurance products strengthened the integration of disaster and climate risk into broader financial protection strategies for vulnerable people, and to set expectations on the role of catastrophe risk pools as meaningful, cost-effective instruments to that end. As a result, Nicaragua can complement its ongoing physical risk reduction and adaptation program with financial protection mechanisms to strengthen climate resilience.

III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PREPARATION

58. **Regional approach.** Project implementation included Honduras in design as part of a regional approach because Honduras and Nicaragua were the only two IDA countries in Central America, and this approach helped the countries leverage Regional IDA. The two countries are also some of the most vulnerable in the region to hurricane and earthquake events. Secondly, this approach also promoted risk pooling benefits in parametric insurance and responded to client demand and interest to join CCRIF benefited from the preparation of the CCRIF Project, complementing efforts to support the expansion of CCRIF SPC to Central America. Additional support to countries such as the financing of the participation fee, proved be effective in increasing the participation of countries, ultimately benefiting Nicaragua’s own participation.

59. **Quality of project design.** The project design benefited from the World Bank’s experience in supporting the implementation of similar Projects for the Caribbean. The Project was designed to provide complementary technical assistance to offer an integrated financial protection strategy beyond parametric insurance. In addition, countries welcomed the availability an additional instrument, with the understanding that parametric insurance should be combined with other financial solutions as part of a comprehensive package for financial protection against natural disasters.

60. **Simple design.** The Project focused on facilitating accessibility to CCRIF products, putting in place mechanisms that facilitated the direct payment of premiums each year. It was designed to allow flexibility in the selection of the parameters and products to adjust to changing priorities and needs. It also incorporated sustainability measures such as... that proved to be effective in creating fiscal discipline for the budgeting of premium payments post-project.

61. **Selection of instrument.** At the time of appraisal, catastrophe risk insurance was determined to be the most appropriate post disaster financing instrument for Central American countries. It was also advantageous for Nicaragua to continue its participation in the CCRIF SPC with other member countries—since regional pooling leveraged opportunities for Nicaragua to engage in dialogue on improved risk insurance products—which helped the GoN to decide whether the insurance would continue to be the most appropriate instrument once other post disaster financing instruments became available.

62. **Readiness for implementation.** Annual disbursements were made on time, indicating that critical measures were already in place before the Project was approved. During preparation, the relevant procurement arrangements, capacity building and decision-making processes were put in place to select the desired insurance coverage. These mechanisms were maintained throughout project implementation, leading to the timely implementation of the Project.



63. **Consultations.** Constant communication and regular consultations with experts and stakeholders were critical to ensure understanding of the instrument. Early consultations with decision makers in Central America to ensure understanding and ownership of the initiative facilitated the early participation in the CCRIF SPC. Local knowledge and private sector expertise were also vital for the project preparation and CCRIF SPC in guiding geographical and product expansion, selection of service providers, insurance policy terms and conditions, as well as pricing, which benefitted this Project and contributed to its successful implementation.

64. **Long term engagement with the CCRIF SPC.** The World Bank has been a strategic partner of the CCRIF SPC since 2007 in the Caribbean and in Central America since 2014. In addition to providing financial support by channeling donor contributions, risk pools need strong political commitment. The World Bank has been able to use its convening power to help build political momentum and coordination among the participating countries, which was critical for project preparation in Nicaragua and Honduras. The CCRIF SPC and WB partnership with COSEFIN has been particularly important in Central America to facilitate political and policy coordination between participating governments, which supported risk-based decision-making needed in project preparation and implementation. In addition, the CCRIF SPC has served as an effective entry point to foster policy dialogue on risk management and risk ownership as part of the complementary World Bank technical assistance.

B. KEY FACTORS DURING IMPLEMENTATION

65. **Withdrawal of Honduras from the Credit.** The Government of Honduras' evaluation of its fiscal situation and competing political priorities delayed its decision to join the CCRIF SPC and sign the Credit Agreement for this IDA Project. Honduras' hesitation to move forward with CCRIF membership can also be partially attributed to the delayed availability of excess rainfall coverage, which later became available for the 2016/2017 policy period. Because of this delay, the Bank lowered the rating of overall implementation progress from Satisfactory to Moderately Unsatisfactory. However, after the withdrawal of Honduras, the Project was restructured, and implementation progress was measured only for Nicaragua. A satisfactory rating was maintained throughout the remainder of the project.

66. **Benefits of Expanded Membership.** When analyzing options for catastrophe risk transfer, an analysis showed that Honduras and Nicaragua could reduce the cost of catastrophe risk when pooling their risk with other COSEFIN members, compared to approaching the reinsurance market individually. In any case, the analysis took into consideration the prospect of other countries joining, so the participation of Honduras was used as an assumption. With Honduras' withdrawal, Nicaragua was the only member country for three years and played an important role in ensuring that the Central America SPC continued to be active, allowing other countries to join a well-established SPC: Panama in 2019 and Guatemala in 2020. Once these countries joined, Nicaragua was able to receive the diversification benefits.

67. High-level dialogue with COSEFIN helped to build understanding of the vital role of insurance as part of a broader DRF strategy to mitigate potential adverse political and fiscal positions toward the insurance. Furthermore, during the implementation of the Project, the effective coordination between the COSEFIN Secretariat and CCRIF's management committee for Central America ensured that proper governance was in place in the CCRIF SPC to support the expansion of CCRIF SPC to Central America.



68. **Knowledge Dissemination on Risk Transfer Products.** The innovative nature of the instrument required extensive technical discussions with various national entities to ensure that the models, features, benefits, and limitations are well understood. In parallel, the World Bank continued to support countries through technical assistance to improve their understanding of the nature of risk transfer products and their fit within the countries' overall strategies.

69. Nicaragua is aware of the need to increase/acquire additional coverage, but is constrained by its high debt-to-GDP levels and tightening fiscal conditions. During project implementation, discussions with technical national entities helped them to make informed decisions to select the best coverage for the country, keeping in mind the fiscal constraints. Ultimately, it was understood by the country that through the purchase of affordable insurance products, it could increase its disaster and climate resilience by protecting fiscal space for immediate disaster response without having to acquire an additional debt.

IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

Rating: Substantial

M&E Design

70. The PDO and intermediate indicators were appropriate for measuring the achievement of the PDO and the intermediate results. The M&E system was designed to be in line with standard Bank reporting procedures. The Bank coordinated with the Ministries of Finance and the CCRIF SPC to ensure that premium payments were made on time and that the countries made policy parameter selections in that were communicated to the CCRIF SPC well in advance of annual June 1 CCRIF SPC renewal deadlines.

M&E Implementation

71. The World Bank met with the GoN, Ministry of Finance and the CCRIF SPC on an annual basis to assess if the premium payment had been made on time and that the risks selected by the country were covered by the Facility. The CCRIF SPC provided its annual reports, including its unaudited and audited financial statements, for Bank review. Findings from M&E activities were duly reflected in the Implementation Status and Results Reports (ISRs).

M&E Utilization

72. The Project monitored insurance payouts to the participating countries following significant disaster events. The time taken for and amounts of the payouts helped to assess the performance of the regional risk pool and to inform continual refinements of the insurance products and their coverage.



Justification of Overall Rating of Quality of M&E

73. The M&E design was appropriate, functioned as designed, and was utilized to monitor implementation and the achievement of project objectives. As such, the quality of M&E is rated Substantial.

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

74. **Environmental and Social.** The Project was classified as Category C. Project activities did not include any physical investments, and no Bank environmental or social safeguard policies were triggered. Overall, the Project's social and environmental impacts were positive, as it contributed to the GoN efforts to manage residual risk and strengthen its capacity to respond to and recover from disasters.

75. **Financial Management.** The Financial Management rating was Satisfactory throughout project Implementation. The Ministry of Finance maintained adequate accounting records of all transactions with the CCRIF SPC and maintained a qualified accountant, in addition to support staff. Annual audited financial statements were furnished on time and there are no significant audit observations that have remained unaddressed.

76. **Procurement.** Procurement as rated Satisfactory throughout project Implementation. No works, goods or consulting services were procured under this Project. The only contracts financed by the Project were the Participation Agreements and the Insurance Agreements between Nicaragua and the CCRIF SPC for the provision of insurance services by the CCRIF SPC. The selection of the CCRIF SPC to provide the insurance coverage was made on a single-source basis using a modified version of the direct contracting method prescribed by Bank procurement guidelines. This direct contracting of the CCRIF SPC was justified on the grounds that the CCRIF was the only provider of the specific insurance coverage that the Project is intended to finance.

C. BANK PERFORMANCE

Rating: Highly Satisfactory

Quality at Entry

77. The Bank played a catalytic role in supporting fiscal resilience to disasters in Central America and the Caribbean. The Bank responded efficiently to a request from the CARICOM Heads of State to gain access to an affordable and effective disaster risk financing instrument, mobilizing and coordinating highly specialized expertise to design and implement the CCRIF. Implementation arrangements selected and the establishment of the regional catastrophe risk insurance pool reflected lessons learned from past engagements in this sector. Despite the cancellation of the Honduras credit and subsequent restructurings, the Bank assessed political will and institutional capacity adequately during preparation in the risk assessment and undertook mitigation measures to address potential shortcomings.



Quality of Supervision

78. The Bank held regular consultations with the Ministry of Finance and other entities involved, and with the CCRIF SPC. It carried out the two restructurings in a timely manner to address project requirements. The Bank participated in training workshops conducted by the CCRIF SPC on its different financial instruments, specifically on parametric insurance models with coverage for earthquakes, hurricanes, and excessive rainfall. The Bank reviewed reports prepared by the CCRIF SPC and the GoN. The Bank conducted supervision missions with the CCRIF SPC, government entities, and other relevant stakeholders. The supervision team comprised relevant technical experts in disaster risk management and financial protection, as well as a small team of fiduciary and safeguards specialists commensurate with the level of effort needed to support the simplified project implementation. ISRs were prepared regularly (every six months) and the project ratings were assessed and reported candidly, based on reports and mission findings.

Justification of Overall Rating of Bank Performance

79. Bank performance is rated Highly Satisfactory based on the above assessment of its contribution to quality at entry and the quality of supervision.

D. RISK TO DEVELOPMENT OUTCOME

80. At the time of completion, Nicaragua achieved the objective of strengthening its financial protection from disasters through access to timely post disaster financing. As part of the Project's sustainability measures, the percentage of the premium financed by the IDA credit decreased over the last two years, with the Ministry of Finance consistently budgeting for the balance; during the final year of the Project, the GoN covered 30 percent of the premium payment. The most recent renewal for year 2021/22 was fully financed by the GoN, demonstrating its continued commitment to disaster risk management and underscoring the Project's sustainability.

81. The project outcomes are sustainable for Nicaragua and the region after project closure. The GoN has demonstrated commitment to the CCRIF SPC with its intention to finance its 2021/22 policies with its own budget funding. Neighboring countries have verbally referenced the precedence set by Nicaragua in joining the facility and used it to rally internal policy and technical support for their own entry into the CCRIF SPC. In 2018 Panama joined the CCRIF SPC as a new member, and Guatemala joined in 2019. In the 2021/22 policy year, membership among the COSEFIN countries is likely to increase with El Salvador and Honduras expected to finalize their membership, further underscoring the facility's long-term sustainability as a disaster risk insurance mechanism.

V. LESSONS AND RECOMMENDATIONS

82. **Catastrophe multi-risk pooling at the regional level is a cost-efficient means to enable countries to access quick**



liquidity following a disaster event. Insurance mobilizes additional capital from outside the country and contributes to the overall reduction of the gap between a government's contingent liability to catastrophic events and the amount of readily available resources that can be mobilized. Effectively transferring part of their disaster risk to capital and reinsurance markets can help solve a significant portion of countries' immediate liquidity needs in the aftermath of a disaster.

83. **Catastrophe Risk insurance should be part of a multi-risk layering approach.** Presented with financial instruments that require country-level decisions on coverage choices, governments are best equipped to make those choices when also receiving technical assistance that guides decision-makers on how to position the instrument in their repertoire of financial instruments. Governments can optimize their financial coverage by combining different instruments to protect against events of different frequency and severity, either before or after a disaster strike. Determining the right mix of instruments depends on the financial liabilities the government may face and its risk appetite. International best practices suggest the adoption of a risk layering approach for disaster risk financing protection strategies that combine risk retention (such as budget allocations or contingent credit lines) and risk transfer (such as insurance, that passes on the risks of the government associated with certain event to another party) instruments.

84. **Capacity building is key to continue access to risk insurance and develop own financial protection strategies.** The GoN has increased its awareness of the country's exposure and vulnerability to disasters, as well as the general principles of DRF, beyond instruments. Knowledge on exposure, stemming from an understanding of risk profiles presented by the CCRIF SPC, has supported the GoN in making other risk-based decisions. As part of a comprehensive approach to disaster risk reduction, Nicaragua has taken essential steps to incorporate DRM and climate change adaptation in its urban and sectoral development policies. As a result of the DRF TA, Nicaragua has been working to conduct public financial management assessments, implement a budget classifier, and improve reporting requirements. Nicaragua has broadened the scope of its financial toolkit and has begun implementing a DRM and climate change budget classifier in 14 entities and critical sectors. This has helped the country trace and monitor resources allocated to DRM, providing valuable information for future budget allocations and efficient use of public funding.

85. **Honduras withdrawing early in the implementation was rooted on institutional barriers, including lack of understanding of the products, and hesitation to use IDA resources for premium payment rather than allocating it to other development projects due to ongoing fiscal challenges.** Since then, the disaster risk financing agenda in Honduras has evolved, including the development and adoption of a disaster risk financing strategy and an operational plan (2021). These documents are framing Honduras' current engagement with the CCRIF SPC, and the purchasing of an excess rainfall policy is one of the instruments under its layering approach. Country participation in risk-pooling insurance can be facilitated when complemented with tailored technical and analytical support to support clients in identifying an appropriate role for insurance within their broader financial risk management architecture.

..



ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS INDICATORS

A.1 PDO Indicators

Objective/Outcome: Improved access to efficient sovereign risk insurance

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Nicaragua as member of CCRIF is eligible for catastrophe risk coverage and has received payment within a month of the occurrence of a covered (insured) event	Percentage	0.00 01-Jun-2014	100.00 01-Jun-2014		100.00 28-Jun-2021

Comments (achievements against targets):

A.2 Intermediate Results Indicators

Component: Component 2: Payment of annual insurance premium to the CCRIF for Nicaragua



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Policies provide increasing insurance coverage and/or lower attachment point (insurance deductible) for a given premium amount	Yes/No	No 01-Jun-2014	Y 01-Jun-2014		Yes 28-Jun-2021
Comments (achievements against targets):					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
CCRIF premiums for Nicaragua are lower than the simulated price for a comparable coverage purchased individually in the market	Yes/No	Yes 01-Jun-2014	Y 01-Jun-2014		Yes 28-Jun-2021
Comments (achievements against targets):					



B. KEY OUTPUTS BY COMPONENT

Objective/Outcome Improved access to efficient sovereign risk insurance	
Outcome Indicators	Nicaragua as member of CCRIF is eligible for catastrophe risk coverage and has received payment within a month of the occurrence of a covered (insured) event
Intermediate Results Indicators	<ol style="list-style-type: none">1. Policies provide increasing insurance coverage and/or lower attachment point (insurance deductible) for a given premium amount2. CCRIF premiums for Nicaragua are lower than the simulated price for a comparable coverage purchased individually in the market
Key Outputs by Component (linked to the achievement of the Objective/Outcome 1)	<ol style="list-style-type: none">1. Access to CCRIF Policies for insurance coverage for earthquakes and tropical cyclones2. Access to lower premium rates than the simulated price for comparable risk insurance purchased individually in the market.



ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Preparation	
Ana Campos Garcia	Task Team Leader(s)
Jose Simon Rezk	Financial Management Specialist
Supervision/ICR	
Mirtha Liliana Escobar Saenz, Rashmin Gunasekera	Task Team Leader(s)
Leonel Jose Estrada Martinez, Carlos Lago Bouza	Procurement Specialist(s)
Sandra Lisette Flores De Mixco	Financial Management Specialist
Alvaro Gilberto Fernandez Trigoso	Financial Management Specialist
Haris Eduardo Sanahuja	Team Member
Linda Castillo	Procurement Team
Maria Virginia Hormazabal	Team Member
Patricia Rodrigues de Melo	Team Member
Dianna M. Pizarro	Social Specialist
Lelia Sampaio Werner	Team Member
Robert Hale Montgomery	Environmental Specialist
Claudia Patricia Pacheco Florez	Team Member
Rodrigo Andres Donoso Arias	Team Member



B. STAFF TIME AND COST

Stage of Project Cycle	Staff Time and Cost	
	No. of staff weeks	US\$ (including travel and consultant costs)
Preparation		
FY14	41.173	153,204.24
FY15	0	- 9.00
Total	41.17	153,195.24
Supervision/ICR		
FY15	41.967	156,366.54
FY16	20.652	78,415.12
FY17	17.195	100,655.03
FY18	20.943	143,409.47
FY19	11.418	84,370.44
FY20	20.820	147,083.59
Total	133.00	710,300.19

**ANNEX 3. PROJECT COST BY COMPONENT**

Before Restructuring

Components	Amount at Approval (US\$M)	Actual at Project Restructuring (US\$M)	Percentage of Approval (US\$M)
Component 1: Payment of the entrance fee to the CCRIF for Nicaragua	4.50	2.50	1%
Component 2: Payment of annual insurance premium to the CCRIF for Nicaragua	19.50	0	0
Total	24.00	2.50	

After Restructuring

¹ US \$10.6 = SDR 7.6. The remaining SDR 0.2 was not disbursed due to policy parameter choices

Components	Amount at Approval (US\$M)	Actual at Project Closing (US\$M)	Percentage of Approval (US\$M)
Component 1: Payment of the entrance fee to the CCRIF for Nicaragua	1.00	1.00	100%
Component 2: Payment of annual insurance premium to the CCRIF for Nicaragua	10.60	10.60 ¹	100%
Total	11.60	11.60	100%



ANNEX 4. EFFICIENCY ANALYSIS

Since 2015, Nicaragua has contracted a total of 17 policies for three different types of hazards (tropical cyclones, earthquakes, and excessive rainfall) with the CCRIF to acquire risk transfer instruments that allow the country to strengthen its resilience against disasters. Total payments in terms of gross premiums have been close to US\$12 million (Table 5), of which US\$4 million was financed by this project.

Table 5. Nicaragua Policies

Policy year	Peril type	Gross premium
2015-16	Tropical Cyclone	\$500,000
2015-16	Earthquake	\$500,000
2016-17	Tropical Cyclone	\$1,000,000
2016-17	Earthquake	\$500,000
2017-18	Excess Rainfall	\$800,000
2017-18	Tropical Cyclone	\$1,000,000
2017-18	Earthquake	\$500,000
2018-19	Tropical Cyclone	\$1,000,000
2018-19	Earthquake	\$500,000
2019-20	Excess Rainfall	\$500,000
2019-20	Tropical Cyclone	\$800,000
2019-20	Earthquake	\$1,000,000
2020-21	Earthquake	\$1,000,000
2020-21 (July 1, 2020 - May 31, 2021)	Excess Rainfall	\$688,356
2020-21 (July 1, 2020 - May 31, 2021)	Tropical Cyclone	\$1,560,274
2020-21 (June 1 - June 30, 2020)	Tropical Cyclone	\$65,753
2020-21 (June 1 - June 30, 2020)	Excess Rainfall	\$41,096
Total		\$11,955,479

In this period, four natural hazard events hit Nicaragua, generating respective payouts within the framework of the agreements with CCRIF. These corresponded to the earthquake in June 2016, Hurricane Otto in November 2016, and Hurricanes Eta and Iota in November 2020. The total amount of payouts received by the country within the indicated period amounts to approximately US\$32.3 million (Table 6).

Table 6. Nicaragua payouts

Event	Payout	Time to payout
E Earthquake, June 9, 2016	\$500,000	14 days
Tropical Cyclone Otto, November 2016	\$1,110,193	14 days
Tropical Cyclone Eta (TC policy), November 2020	\$7,793,524	14 days
Tropical Cyclone Eta (XSR policy), November 2020	\$2,956,021	14 days
Tropical Cyclone Iota (TC policy), November 2020	\$19,891,162	14 days
Total	\$32,250,900	

86. An ex-post economic and financial assessment for the 2015-2021 period indicates that the interventions were economically viable and beneficial for the country. The results of the economic



analysis conducted during project preparation are summarized in the Table 7. Several options have been considered including different discount rates. Initially a four percent discount rate was applied as recommended by Berrada, Mahul and Gollier (2017) for IDA countries. The analysis shows a baseline net present value of \$16.1 million and shows that valuations at six and eight percent discount rates and other scenarios are economically viable.

87. A sovereign parametric insurance product like CCRIF contributes to the longer-term outputs as outlined in the pending National Strategy for DRF. Nicaragua has committed to having a reserve fund capitalized at an amount comparable to its average annual losses from natural hazards that can respond to emergency expenses of events of all magnitudes, in addition to mindful budget reallocation if needed. As a second layer, the government will seek to access a flexible contingent line of credit from a development partner. In addition, the risk transfer layer is bolstered by a strong portfolio of insurance for public assets. CCRIF complements this risk transfer layout with an immediate payout that will arrive before traditional insurance and fill in financing gaps for unknown emergency costs for severe hydrometeorological and seismic events.

Table 7. Summary of Economic and financial analysis

	Discount rate (Percent)			Internal rate of return
	4	6	8	
Net Present Value	\$16,106,400	\$14,364,829	\$12,818,702	0.6110



ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

This ICR was shared with the Government of Nicaragua. No comments to the document were received from the Government. Minor suggestions to the text were incorporated.

The Government highlighted key aspects as a result of the Project:

- The importance of having adequate financial planning related to disaster risk management, which allows governments to organize strategic responses based on prospective approaches that facilitate successful reconstruction and offset costs related to disasters.
- The sovereign insurance offered by CCRIF SPC is currently one of the main disaster risk financing instruments that Nicaragua has to achieve short-term liquidity in the event of a disaster, which in turn allows an immediate response to the disaster while other types of financing can be mobilized.
- Through CCRIF, the Ministry of Finance increased, based on the technical recommendations of the Nicaraguan Institute for Territorial Studies (INETER), its insurance coverage against tropical cyclones. As a result, the country received US\$30.6 million contemplated in the policies against excess rainfall and tropical cyclones after Eta and Iota. This money provided short-term liquidity, and allowed the government to respond to the emergency while securing other types of financing.
- Although the Project closes this year, the government has established mechanisms for the evaluation and selection of policies, as well as fiscal discipline to incorporate provisions for the payment of the premium under the budget. For the year 2021/22 Nicaragua renewed the policies for excess rain, tropical cyclone and earthquake, becoming the sixth renewal of policies. Additionally, the Project was 100 percent disbursed and all the results were satisfactorily achieved. The Project successfully promoted the understanding of the role of parametric insurance and contributed to achieving a better combination of financial protection instruments against disasters.
- Through the Technical Assistance that accompanied the Project, it was possible to strengthen the capacities of the inter-institutional team on disaster risk management and the different financial instruments, including parametric insurance. After Eta and Iota, Nicaragua evaluated the damages and losses in the three weeks after the hurricanes, providing timely information on the mobilization of funds and acting quickly towards a recovery plan. The results of the Project and the improvement in the methodologies demonstrate the internal capacity that has been built to efficiently carry out the assessments of damages and losses due to disasters, an essential step to inform an efficient reconstruction process and that allows addressing the reduction of damages. pre-existing vulnerability factors.



ANNEX 6. SUPPORTING DOCUMENTS (IF ANY)

World Bank. 2021. Results Briefs. Pooling Catastrophe Risk to Protect Natural Hazards: Nicaragua's Experience in Disaster Risk Management and Finance.

World Bank. 2019. Restructuring Paper - Nicaragua Catastrophe Risk Insurance Project - P149895 (Report No.: RES37073). Washington, D.C.: World Bank Group.

World Bank. 2018. Country Partnership Framework for the Republic of Nicaragua for the Period FY18-FY22.

World Bank. 2017. Restructuring Paper – Honduras and Nicaragua Catastrophe Risk Insurance Project - P149895 (Report No.: RES24760). Washington, D.C.: World Bank Group.

World Bank. 2014. Project Appraisal Document Honduras and Nicaragua Catastrophe Risk Insurance Project - P149895 (Report No: PAD994). Washington, D.C.: World Bank Group.