IEG Independent Evaluation Group | WORLD BANK GROUP
World Bank • IFC • MIGA

PROJECT PERFORMANCE ASSESSMENT REPORT

WHAT WORKS

COLOMBIA

Disaster Risk Management Development Policy Loan

Report No. 114745
JUNE 27, 2017

1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

Attribution—Please cite the work as follows: World Bank. 2017. Project Performance Assessment Report: Colombia— Disaster Risk Management Development Policy Loan. Washington, DC: World Bank.

Report No.: 114745

PROJECT PERFORMANCE ASSESSMENT REPORT

COLOMBIA

DISASTER RISK MANAGEMENT DEVELOPMENT POLICY LOAN (IBRD-76180)

June 27, 2017

Human Development and Economic Management
Independent Evaluation Group

Currency Equivalents (annual averages)

Currency Unit = Colombian peso

2004	US$1.00	Col$2,626
2005	US$1.00	Col$2,321
2006	US$1.00	Col$2,358
2007	US$1.00	Col$2,078
2008	US$1.00	Col$1,966
2009	US$1.00	Col$2,156
2010	US$1.00	Col$1,898
2011	US$1.00	Col$1,848
2012	US$1.00	Col$1,798
2013	US$1.00	Col$1,869
2014	US$1.00	Col$2,001
2015	US$1.00	Col$2,746

All dollar amounts are U.S. dollars unless otherwise indicated.

Abbreviations

APL	Adaptable Program Loan
CAT DDO	catastrophe deferred drawdown option
CONPES	Consejo Nacional de Política Económica y Social
CPS	country partnership strategy
DNP	Departamento Nacional de Planeación
DPL	development policy loan
DRM	disaster risk management
GDP	gross domestic product
IDB	Inter-American Development Bank
IEG	Independent Evaluation Group
MOF	Ministry of Finance
NDP	National Development Plan
PNPAD	Plan Nacional para la Prevención y Atención de Desastres
PPAR	Project Performance Assessment Report
SNPAD	Sistema Nacional para la Prevención y Atención de Desastres
UNGRD	Unidad Nacional para la Gestión del Riesgo de Desastres

Fiscal Year

Government: January 1–December 31

Director-General, Independent Evaluation:	Ms. Caroline Heider
Director, Human Development and Economic Management:	Mr. Auguste Tano Kouame
Manager, Country Programs and Economic Management:	Mr. Pablo Fajnzylber
Manager, Sustainable Development:	Ms. Midori Makino
Task Manager:	Ms. Xiaolun Sun

Contents

Tables

This report was prepared by Xiaolun Sun and Jorge Garcia-Garcia, who assessed the program in April 2016. The report was peer-reviewed by Stephen Hutton and panel-reviewed by Chad Leechor. Carla Fabiola Chacaltana and Yasmin Angeles provided administrative support.

Principal Ratings

	ICR*	ICR Review*	PPAR
Outcome	Satisfactory	Moderately satisfactory	Satisfactory
Risk to Development Outcome	Moderate	Moderate	Negligible to low
World Bank Performance	Satisfactory	Moderately satisfactory	Moderately Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

* The Implementation Completion and Results Report (ICR) is a self-evaluation by the responsible World Bank department. The ICR Review is an intermediate Independent Evaluation Group (IEG) World Bank product that seeks to independently verify the findings of the ICR.
Note: PPAR = Project Performance Assessment Report.

Key Staff Responsible

Project	Task Manager or Leader	Sector Manager	Country Director
Appraisal	Niels B. Holm-Nielsen	Guang Zhe Chen	Axel van Trotsenburg
Completion	Niels B. Holm-Nielsen	Anna Wellenstein	Gloria Grandolini

IEG Mission: Improving World Bank Group development results through excellence in independent evaluation.

About this Report

The Independent Evaluation Group (IEG) assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the World Bank's self-evaluation process and to verify that the World Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20–25 percent of the World Bank's lending operations through fieldwork. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or World Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examine project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, interview World Bank staff and other donor agency staff both at headquarters and in local offices as appropriate, and apply other evaluative methods as needed.

Each PPAR is subject to technical peer review, internal IEG panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible World Bank country management unit. The PPAR is also sent to the borrower for review. IEG incorporates both World Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the World Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the IEG Rating System for Public Sector Evaluations

IEG's use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEG evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEG website: http://ieg.worldbankgroup.org).

Outcome: The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current World Bank country and sectoral assistance strategies and corporate goals (expressed in poverty reduction strategy papers, Country Assistance Strategies, sector strategy papers, and operational policies). *Relevance of design* is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared with alternatives. The efficiency dimension is not applied to development policy operations, which provide general budget support. *Possible ratings for outcome:* highly satisfactory, satisfactory, moderately satisfactory, moderately unsatisfactory, unsatisfactory, highly unsatisfactory.

Risk to Development Outcome: The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for risk to development outcome:* high, significant, moderate, negligible to low, and not evaluable.

World Bank Performance: The extent to which services provided by the World Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan or credit closing, toward the achievement of development outcomes). The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for World Bank performance:* highly satisfactory, satisfactory, moderately satisfactory, moderately unsatisfactory, unsatisfactory, and highly unsatisfactory.

Borrower Performance: The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency(ies) performance. *Possible ratings for borrower performance:* highly satisfactory, satisfactory, moderately satisfactory, moderately unsatisfactory, unsatisfactory, and highly unsatisfactory.

Preface

This is the Project Performance Assessment Report (PPAR) of the Colombia Disaster Risk Management Development Policy Loan with a catastrophe deferred drawdown option (CAT DDO). The loan of $150 million was approved on December 18, 2008 and closed on January 31, 2012.

This report presents findings from an in-depth review of the project documents, discussions with World Bank country teams in Washington, DC and Bogotá, and interviews with government officials and other stakeholders during an evaluation mission to Colombia in April 2016. The cooperation and assistance of all parties consulted are gratefully acknowledged, as is support of the World Bank office in Bogotá.

The assessment aims first to serve an accountability purpose by verifying the project's success in achieving the intended outcomes. Secondly, as part of a cluster of PPARs on development policy loans with deferred drawdown option (DDO), including catastrophic risk (CAT) DDO, the evaluation draws lessons to inform the design and implementation of this type of instrument in Colombia and other World Bank Group client countries.

Following standard Independent Evaluation Group (IEG) procedures, the report is sent to government officials and agencies in Colombia for review and feedback. Comments received will be attached as appendix D.

Summary

This Project Performance Assessment Report (PPAR) evaluates the Colombia Disaster Risk Management Development Policy Loan with a catastrophe deferred drawdown option (CAT DDO). The loan of $150 million was approved on December 18, 2008, became effective on June 25, 2009, and closed on January 31, 2012. The PPAR reviews the performance of the operation based on Independent Evaluation Group (IEG) and Operations Policy and Country Services guidelines on program evaluations.

The loan sought to strengthen the government's program for reducing risks resulting from adverse natural events. More specifically, it aimed to support advances in four action areas to

- improve risk identification and monitoring, and increase awareness of risk;
- increase prevention and mitigation measures for risk reduction;
- strengthen the national system for disaster management and prevention; and
- reduce the fiscal vulnerability of the state to natural disasters.

These objectives were highly relevant to country conditions both at the time of program entry and closing. They were well aligned with the government's development plans and World Bank Group strategies.

The design of the program had modest relevance. Although the four action areas were consistent with the key building blocks of a sound disaster risk management system in Colombia as identified through the World Bank's analytical work, the results framework did not provide a plausible logical chain linking inputs, outputs, and outcomes. The program had one prior action—inclusion of disaster risk reduction and disaster risk management as part of the government's National Development Plan for 2006–10—which was a necessary but an insufficient condition for achieving the four-program objectives. The lack of details on the specific actions to be supported under the program made it difficult to see the relevance of the program for delivering the expected results.

The overall outcome is rated satisfactory, reflecting high relevance of the program's objectives, modest relevance of program design, and substantial progress in all action areas. The significantly expanded disaster monitoring stations provided better and more timely information on seismic and hydro meteorological conditions around the country, making it possible to know more precisely who was at risk and what risks they faced. The national disaster risk management (DRM) authority assisted an increasing number of local governments to strengthen their DRM capacity, which led to 627 municipalities having DRM plans. DRM investments increased across all levels of government. Colombia made significant strides in improving the legal and institutional framework for DRM, but encountered various difficulties in the resettlement of the residents from the Galeras volcano zone. To reduce the fiscal vulnerability of the states to natural disasters, the government has advanced in gathering information to analyze the quality of insurance, calculating the contingent liabilities from associated with an earthquake returning every 250 years, defining a framework for contingent financing, assessing technical and legal options to improve public insurance, and improving the legal framework for infrastructure concession contracts.

Risk to development outcome is rated negligible to low. Colombia has built a strong system for managing disaster risk in a gradual but steady way. This gradual approach is likely to persist as the authorities and the public are keenly aware of the importance of having a good DRM system given its high exposure to natural disasters.

Key Findings

- **The CAT DDO can help advance the DRM reform agenda and strengthen the clients' system to respond to disaster risks.** The Colombia experience shows that as a budget support operation, the CAT DDO shifted the World Bank's counterpart on DRM issues from the Ministry of the Interior and Justice to the Ministry of Finance and the National Planning Department. This allowed the World Bank to have a dialogue with the government at a higher more strategic level than in the past, and to ensure that financial dimensions of disaster risks are fully incorporated in the DRM system. With its renewal feature, the CAT DDO provided a platform for the World Bank and the government to maintain a long-term dialogue.
- **The CAT DDO can complement other World Bank instruments for supporting DRM reforms.** In Colombia, the CAT DDO was part of a substantial DRM portfolio and culminated an engagement that included both knowledge and financial support over a long time. Even so, it took time for the World Bank's ideas to be accepted, but when the government was ready to take action, the World Bank was ready to assist. The common understanding of what needed to be done helped to ensure good implementation of the program despite lack of experience with this new instrument on the part of both the World Bank and the government.
- **The design and implementation of the CAT DDO in Colombia raised some issues that deserve further clarification.** There was tension between the loosely defined requirement that "the borrower must implement a DRM program" and the government's concern over maintaining access to the CAT DDO funds at all times. This concern led the government to opt for modest results indicators to ensure it would not lose access to the contingent line of credit due to missing program targets. It would be very useful for the World Bank to clarify further how this disbursement condition would be assessed and how it relates to the DRM program results monitoring.

Auguste Tano Kouame
Director
Human Development and Economic Management
Independent Evaluation Group

1. Background and Context

1.1 Natural hazards strike Colombia frequently and incur much cost to the country.[1] According to the Center for Research on the Epidemiology of Disasters, 155 events hit Colombia between 1970 and 2015, affecting 17.8 million people and causing damages of $7 billion (in nominal terms). Of these, the 10 biggest disasters affected 15.3 million people; 6 of these accounted for damages estimated at $6.9 billion. An assessment of the fiscal risks of disaster in Colombia by the World Bank arrives at a similar estimate, putting the total economic losses from natural disasters at $7.1 billion between 1970 and 2010 (at constant prices of 2010), equivalent to 2.5 percent of the gross domestic product (GDP) in 2010 (World Bank 2012, vol. 2, table 1.9).

1.2 Four types of disaster account for 90 percent of all reported events in Colombia between 1970 and 2010. Floods constituted the most frequent disasters (72 events), affecting 16 million people and leading to damages of $3.7 billion. Earthquakes occurred less frequently (21 events), but each event affects more people and causes greater damages. The Popayán earthquake of 1979, for example, produced damages estimated at 1 percent of GDP, and the 1999 earthquake in Eje Cafetero (Colombia's coffee-growing region) cost 1.8 percent of GDP. Volcanic activities (10 events) are also very destructive. In 1985, the eruption of the Nevado del Ruiz volcano destroyed the town of Armero, killing more than 20,000 people and causing damages equivalent to 0.7 percent of GDP. Landslides, the second most frequent event (39 events), affect a relatively small number of people (32,495) and cause more limited damages ($400 million).

Disaster Risk Management

1.3 The frequency of natural hazards and the (underestimated) size of the damages suggest that much could be gained from efforts to prevent and mitigate natural hazards and deal efficiently with their consequences when they strike. Colombia has gone through three phases to manage disaster risks. In the 1980s (phase I), it dealt directly with disasters and emergencies, and created the Fondo Nacional de Calamidades (Decree 1547 of 1984). However, two events that shook the country (the Popayán earthquake in 1979 and the Nevado del Ruiz volcano eruption in 1985) showed that the approach was inadequate for protecting the people and too costly for the country.

1.4 A first attempt to deal with risks in a systemic manner was Law 46 of 1988, whereby the congress authorized the government to create a national system to prevent and respond to disasters (Sistema Nacional para la Prevención y Atención de Desastres—SNPAD). Decree Law 919 of 1989 provided the necessary regulations and defined the responsibilities, organizational structure, coordinating mechanisms, and tools to plan and finance the SNPAD. Local authorities are responsible for dealing with the risks, but receive support from regional and national governments.[2] Public and private entities participate in the system and are responsible for preventing and mitigating risks, responding to emergencies, and rehabilitating the towns and regions hit by natural disasters.

1.5 In the 1990s (phase II), the focus of disaster risk management (DRM) efforts moved to prevention of, response to, and recovery from disasters and emergencies. In

1998, the Sistema Nacional para la Atención y Prevención de Desastres (SNPAD) adopted the (PNPAD) through Decree 93 of 1998, which sought to incorporate risk management as an investment as well as a cross-cutting element for development activities. The PNPAD set the policy framework for managing disaster risks, but it did not define the time and space elements of disaster prevention and response actions, nor the parties responsible for implementing the actions required. As such, it was not a plan for action.

1.6 Finally, in the 2000s (Phase III), Colombia adopted an integral approach for managing disaster risks when it incorporated physical and financial risks into the DRM system. In 2001, the Consejo Nacional de Política Económica y Social (Council on Economic and Social Policy; CONPES) defined the strategy to consolidate the PNPAD (Document 3146 of 2001). A subsequent CONPES Document 3318 of 2004 set the basis for financing the program to reduce the fiscal vulnerability to natural disasters and authorized the government to contract external credit with multilateral banks to fund the program. Specifically, the CONPES authorized the government to contract the First Adaptable Program Loan (APL1) with the World Bank for $260 million. The loan would be the first of four expected loans to cover issues at the national (APLs 1 and 4) and subnational levels (APLs 2 and 3). With financial and technical support from the World Bank, the government sought to strengthen its capacity in four areas: (i) risk identification and monitoring, (ii) risk reduction, (iii) policy and institutional development, and (iv) awareness and preparedness.

1.7 These efforts were part of the National Development Plans (NDPs) of 2002–06 and 2006–10, which included reducing fiscal vulnerability from natural hazards and addressing DRM in a comprehensive manner, respectively. The process culminated in 2012, when the congress approved Law 1523 defining the policy and the system for DRM in Colombia. The system follows the international standards defined in the Hyogo Framework for Action and aims to build resilience to disasters at national and community levels. The new system consists of three pillars: (i) knowledge of risks (identification, analysis, monitoring, and education); (ii) risk reduction (corrective and prospective interventions, and financial protection); and (iii) disaster management (preparation and execution of response and recovery). Measured by the Index of Disaster Risk Management and the Index of Deficit of Disasters of the Inter-American Development Bank (IDB), Colombia achieved substantial improvement in its DRM institutional capacity and disaster resilience between 1985 and 2008 (BID 2010b).

World Bank Engagement

1.8 Over the last 30 years, the World Bank provided considerable knowledge and financial support to Colombia on DRM. It directed or redirected a total of $265 million to disaster reconstruction activities. In 2004, the government requested the preparation of a Natural Disaster Vulnerability Reduction APL series to support the implementation of its new DRM policies. The first loan (APL1) was followed in 2006 by the Natural Disaster Vulnerability Reduction to Bogotá (APL2) aimed at reducing the city's exposure to human and economic losses from natural disasters.

1.9 The APL1 consisted of standard investment project components, as well as a risk-financing component that sought to develop a strategy for risk financing and provide financial assistance of up to $150 million that the government could use if a major natural disaster happened. The funds "would be disbursed against a positive list of critical imports made by the public or private sector and incurred up to two months before, and six months after the declaration of a national disaster emergency" (World Bank 2005, 15).[3] The contingent fund responded to the Colombian government's request for a more agile financial instrument to increase its ability to respond to natural disasters quickly. Still, its disbursement would be too slow to meet the immediate needs following a disaster because the government could only access the funds several months after a disaster occurred.

1.10 During the implementation of the APL1, the World Bank Group's Board approved in January 2008 the development policy loan for DRM with a catastrophe deferred drawdown option (CAT DDO) "in response to the request from the [middle-income countries] for loans that better address countries' immediate liquidity needs in the aftermath of natural disasters" (World Bank 2008c). When this option became available, the Colombian government asked the World Bank to cancel the contingent component of the APL1 and use the released resources to fund a CAT DDO. The World Bank agreed, and approved a CAT DDO for $150 million in December 2008. After the government declared a national emergency, a requirement of the operation, the loan was fully disbursed in December 2010 at the government's request, and the program was closed as scheduled on January 31, 2012. Based on the good experience with this operation, the government requested a second CAT DDO for $250 million, which the World Bank's Board approved in July 2012.

2. Objectives, Design, and Their Relevance

Objectives

2.1 As stated in the program document, the CAT DDO aimed to strengthen the government's program for reducing the fiscal risks resulting from adverse natural events. Specifically, it supported the execution of the government's DRM program to

- improve risk identification and monitoring, and increase awareness of risk;
- increase prevention and mitigation measures for risk reduction;
- strengthen the national system for disaster management and prevention; and
- reduce the fiscal vulnerability of the state to natural disasters.

2.2 The operation had one prior action: inclusion of disaster risk reduction and DRM strategy as specific and prominent elements in the 2006–10 NDP.

Relevance of Objectives

2.3 The relevance of objectives is rated high.

2.4 The objectives addressed a serious problem in Colombia: the high human and economic costs of natural disasters. The four policy areas were aligned with the government's long-term development plan (Visión Colombia 2019) and the 2006–10 NDP (table 2.1). They continued to be important elements in the government's subsequent development plans. The 2010-2014 NDP establishes the need to develop a strategy to reduce the fiscal vulnerability arising from natural disasters. The 2014–18 NDP, for instance, identified three strategic pillars: (i) preventing and mitigating disaster risk, (ii) reducing fiscal vulnerability to natural hazards, and (iii) improving decentralization and strengthening land-use planning.

Table 2.1. Alignment of the CAT DDO with the National Development Plan

CAT DDO Action Areas	Disaster Risk Management Elements in National Development Plan
Improved risk identification and monitoring, and increased awareness	Risk identification and monitoring, awareness, and dissemination • Updated networks for monitoring and early warning (seismic, volcanic, hydrological) and knowledge creation • Integrated information system for the SNPAD • Culture, education, and research to manage risk in an integral manner
Increased prevention and mitigation measures for risk reduction	Risk reduction (prevention and mitigation) • Incorporating risk reduction in development planning • Follow up of public investments and exchange of experiences in risk management
Strengthened policies and institutions of the National System for Disaster Management and Prevention	Development of policies and institutional strengthening
Reduced fiscal vulnerability of the state to natural events	Financial strategy to reduce fiscal vulnerability and risk transfer

Sources: World Bank 2008a, 34–35; Colombia, DNP, 2006, vol. 1, 369–74.
Note: SNPAD = Sistema Nacional para la Atención y Prevención de Desastres.

2.5 The objectives were consistent with the World Bank Group's country partnership strategies (CPSs) for Colombia. In CPS 2008–11, DRM issues straddled pillar I on Sustained Equitable Growth under financial sector development and pillar III on Environment and Natural Resource Management in relation to providing input to national policy and strengthening capacity (World Bank 2008b). The issues acquired prominence in CPS fiscal year 12–16, with enhancing DRM capacity becoming a clearly defined objective under pillar II, Sustainable Growth with Enhanced Climate Resilience (World Bank 2011).

Relevance of Design

2.6 Relevance of design is rated modest.

2.7 The CAT DDO's design relevance is assessed on the basis of the choice of instrument and the policy program for achieving the objectives. This operation was one of the first CAT DDO programs that the World Bank has designed and implemented.[4] There were no prior lessons to draw from. Access to fast-releasing resources in the event of catastrophic natural disasters was a primary concern for the government in requesting this loan. This concern was reflected in the program's conservative design and modest targets as the government wanted to be sure that the disbursement conditions would be met so that the CAT DDO fund would be released when needed.

CHOICE OF INSTRUMENT

2.8 As noted in the Independent Evaluation Group's natural disaster study, rapid and flexible financing is critical for early recovery (World Bank 2007). Designed as bridge financing until other funding could be mobilized, the CAT DDO allowed Colombia to tap into untied resources quickly for postdisaster relief and recovery. To ensure faster disbursement of funds to meet urgent needs, the CAT DDO improved over the contingent portion of the APL1 by removing the requirement to disburse against a list of expenses incurred around a natural disaster. By shifting the disbursement condition from ex post verification of imports to ex ante monitoring of DRM reform progress, the CAT DDO gave the government full discretion over the use of the resources and allowed the government to better organize its relief response than other financing instruments. The requirement of the government to declare a national emergency for fund disbursement ensured that the CAT DDO resources were used for its intended purposes, and that the funds could be deployed faster because such declaration permitted using simplified procedures to contract public works in the zones affected by the disaster.

Being a DPL, and as such administered through the Ministry of Finance (MOF), this loan allowed the World Bank to have a seat at the table in the government's DRM discussions and contribute its expertise at a higher, more strategic level than in the past. Traditionally, the Ministry of Interior and Justice was the main agency for managing disasters, whereas the MOF was not involved except when it had to fund postdisaster recovery and rehabilitation. Having the MOF as counterpart was a powerful game changer because it allowed DRM to be addressed in an integrated manner with the involvement of many entities: the MOF on disaster insurance and financing strategy; the Departamento Nacional de Planeación (National Planning Department; DNP) on DRM policy and program monitoring; the Unidad Nacional para la Gestión del Riesgo de Desastres (National Unit for Disaster Risk Management; UNGRD) on disaster risk prevention, mitigation, and response through the national fund for disaster risk; and the Fondo de Adaptación, created to manage the recovery of La Niña in 2010–11, on reconstruction.[5]

POLICY PROGRAM

2.9 The four action areas focused on the steps that the government had to take to build its DRM system. They were consistent with the key building blocks of a sound DRM system in Colombia as identified through the World Bank's analytical work, the World Bank's hazard risk management framework (World Bank 2008c), the IDB's work in DRM, and the Hyogo Framework for Action to Build the Resilience of Nations and Communities to Disasters.[6] They also reflected the hard-won lessons from experience with frequent natural disasters, especially the country's growing awareness of what was lacking in its DRM capacities.

2.10 However, the design was deficient for achieving the highly relevant objectives in the four well-chosen areas. It defined only one prior action (inclusion of disaster risk reduction and DRM strategy in the NDP). While this high-level reform was necessary for achieving all DRM outcomes, many intermediate actions would be required to achieve the specific objectives in the four action areas. These intermediate actions were not spelled out (table 2.2).

Table 2.2. Policy Matrix

Action Areas	Prior Action	Gov. Benchmarks for 2011	Expected Outcomes
Improved risk identification and monitoring, and increased awareness	The inclusion, as specific and prominent elements in Colombia's 2006–10 National Development Plan, enacted as Law 1151 of July 2007, of (i) disaster risk reduction and (ii) disaster risk management strategy	Expand coverage of hazard monitoring network from 18 seismic stations, 95 volcanic monitoring stations, and 249 automatic hydro meteorological stations.	The National System for Disaster Management and Prevention will continue to address the needs of, on average, 80 percent of people in disaster-affected areas that request support.
Increased prevention and mitigation measures for risk reduction		Expand the number of municipalities that have action plans for inclusion of risk reduction in territorial development plans, from 20 that have action plans by July 1, 2008.	Expand the number of municipalities that have disaster risk management plans. On October 1, 2008, 10 municipalities had disaster risk management plans.
Strengthened policies and institutions of the National System for Disaster Management and Prevention		Definition and validation of the objectives and instruments for the relocation of people living in the disaster impact zone of the Galeras volcano.	There will be a reduction in the number of people living in the high hazard zone of the Galeras volcano; on October 1 2008, 7,935 people lived in the high hazard zone.
Reduced fiscal vulnerability of the state to natural events		Consolidate national catastrophe risk financing strategy, which facilitates public sector risk transfer and generates incentives for private sector risk transfer.	The government will have defined a framework for contingent financing. On October 24, 2008, the government passed a policy document (CONPES 3545) providing the basis for such a framework.

2.11 An example of this design deficiency is in the third action area, where the goal was to strengthen policies and institutions of the National System for Disaster Management and Prevention. The program document clearly identified the challenges facing Colombia, which were to upgrade, integrate, and consolidate the system put in place since 2006 to link the local level with the national level, and the executive functions with the information-generating functions. However, there was no mention of the reforms that the CAT DDO would support to achieve the objective in this area. As it turned out, the actions focused on the definition and validation of the objectives and instruments for relocating people living in the disaster impact zone of the Galeras volcano. Without any information on the reforms to be supported under the program, nor the rationale for their selection, it is unclear how the objective would be achieved. The gap between the broad objective at national level and the narrowly defined outcome (reduced number of people living in one disaster zone) makes it even more difficult to conclude that the program was relevant for achieving its objectives.

2.12 In addition to a lack of a plausible logical chain linking the one policy action supported under the program to the four objectives, the results framework also suffered from deficiencies in the outcome indicators, which measured mostly outputs (such as the number of municipalities that had disaster management plans), rather than outcomes (such as the measures implemented to prevent and mitigate risks). Besides, some indicators had a tenuous relationship with the objectives for which they would be used to measure progress (such as the number of people relocated and strengthened policies and institutions for risk management and prevention).

3. Implementation

3.1 The prior action was completed in 2010 when the NDP was issued as law. Three agencies were involved in coordinating and monitoring the program. The MOF was the main counterpart of the World Bank for the DPL, whereas the DNP and the Directorate for Disaster Prevention and Attention in the Ministry of Interior and Justice coordinated the implementation of the program. The implementation arrangements rested on conducting a dialogue between the World Bank and Colombian authorities guided by the benchmarks that the government had defined for its DRM system.

3.2 The World Bank carried out supervision missions as planned and the supervision team produced five implementation status reports between February 2009 and August 2011. In addition to monitoring the progress in building the institutions to manage disaster risk and in achieving the results indicators, the supervision missions provided technical assistance to the government, such as exploring options to institutionalize a risk-financing framework for catastrophe risk within the MOF.

3.3 To ensure smooth implementation of the program, the World Bank and the government prepared an operational manual, which defined responsibilities for reporting on monitoring indicators and the procedures for loan disbursement. It assigned each agency specific roles and responsibilities in the loan disbursement process and stipulated that the government would carry out a simulation exercise at least once a year. One simulation was carried out in 2010 and may have helped with the eventual fast disbursement of the loan.

4. Achievement of the Objectives

4.1 The Colombian government carried out substantive work in the four action areas. In assessing the CAT DDO's achievement, this evaluation considers both the program's simple but deficient results matrix and additional sources of information relevant to World Bank support for DRM reforms in Colombia.

Objective 1: Improved Risk Identification and Monitoring and Increased Awareness

4.2 Efficacy of objective 1 is rated high.

4.3 Identifying risk constitutes the basis for any early warning system. Because the main risks of disasters in Colombia arise from earthquakes and floods, the government sought to expand its data collection capacity to better assess the risks in these areas. The plan was to increase its monitoring networks of 18 seismic stations and 80 hydrometeorological stations in place as of July 2008. The government succeeded in expanding the monitoring network. By program close (January 31, 2012), it had 35 seismic stations, 303 permanent stations for volcanic monitoring, and 270 hydrometeorological, of which 234 had satellite transmission.

4.4 The substantially expanded monitoring stations provide better and more timely information on seismic and hydrometeorological conditions around the country, making it possible for the government to know more precisely who is at risk and what risks they face. As reported by the Colombian Geological Service in 2000, when the first wide band monitoring station was established, the service identified fewer than 6,000 earthquakes; but in 2012, the enhanced monitoring system could identify more than 12,000 earthquakes. The expanded and improved system also produced information of better quality (such as fewer errors in the depth of earthquakes). The UNGRD reported that through evaluations of the impact of disasters by departments and cities, it could identify the municipalities most in need of help and the investment required to manage the risks, and establish priorities for interventions arising from multiple threats from landslides, earthquakes, and floods for the period 2014–18 (Colombia UNGRD 2014, 17–27).

4.5 The program's expected outcome from these actions was for the government to be ready to address the needs of at least 80 percent of the people in disaster-affected areas that requested support. This target was exceeded: more than 97 percent of the people in affected areas were supported on request.

4.6 Since closing the CAT DDO, the Fondo de Calamidades evolved into the Fondo Nacional de Riesgo de Desastres, with broader functions and objectives, to provide resources for risk prevention and disaster response. The single register of people affected by disasters (Evaluación de Daños y Análisis de Necesidades—EDAN) allows the government and other relief workers to have better information on who is affected by disasters and where it must direct its efforts.

OBJECTIVE 2: INCREASED PREVENTION AND MITIGATION MEASURES FOR RISK REDUCTION

4.7 Efficacy of objective 2 is rated substantial.

4.8 Most of the prevention and mitigation measures must be undertaken at the local level. To this end, the program sought to expand the number of municipalities with DRM plans. Law 1523 of 2012, which created the National System for Disaster Risk Management, made the elaboration of municipal DRM plans mandatory for municipalities. It also integrated the preparation of municipal and departmental DRM plans by making mayors and governors responsible for formulating the plans. Furthermore, it adopted a unified methodology to prepare the plans using the information gathered by the seismic and meteorological stations.

4.9 The Directorate for National Disaster Prevention and Response under the Ministry of Interior and Justice was responsible for providing technical assistance to the municipalities in identifying risk scenarios, establishing priorities, and improving their understanding of risk and DRM strategies to prepare the plans. Since 2012, the UNGRD under the Office of the President succeeded the Directorate for National Disaster Prevention and Response in supporting the preparation of these plans. This led to 674 municipalities receiving assistance and the elaboration of 627 municipal DRM plans. In addition, the Ministry of Environment, Housing, and Territorial Development provided technical assistance to 1,007 municipalities by mid-2013, of which 542 had prepared action plans incorporating risk management into their Territorial Land Use Plans. These actions represent significant progress from the baseline of just 10 municipalities with DRM plans in 2008.

4.10 The CAT DDO's results matrix tracked only the preparation of DRM plans, but there are indications that investment to prevent and mitigate disaster risks also increased, although data remain sketchy. By DNP estimates, DRM investment rose between 2006 and 2015 across all levels of government. For entities at the national level, the share of DRM investment in total investment grew from 0.22 percent in 2006–08 to 1.1 percent in 2012–15. The lion's share (92 percent) of the DRM investment went to disaster management, reflecting the large investment to recover from the floods caused by La Niña in 2011, while risk reduction and risk knowledge accounted for 6 percent and 2 percent, respectively. At subnational levels, DRM investment represented 0.6 percent of total investment in 2011–15 among the states (departamentos) and reached $1.7 billion dollars in the 1,032 municipalities during 2002–15, of which about 20 percent was executed in 2015. The five largest cities in Colombia (Bogotá, Medellín, Bucaramanga, Cali, and Barranquilla) accounted for 57 percent of the total (Colombia, DNP 2016).

OBJECTIVE 3: STRENGTHENED POLICIES AND INSTITUTIONS OF THE NATIONAL SYSTEM FOR DISASTER MANAGEMENT AND PREVENTION

4.11 Efficacy of Objective 3 is rated substantial.

4.12 In December 2007, the government adopted a policy to reduce disaster risks in the Galeras volcano area (CONPES Document 3501; Colombia, DNP 2007). This involved relocating the residents in the municipalities of La Florida, Nariño, and Pasto, which could be affected by an eruption of the Galeras volcano. The CONPES Document 3501 defined the related responsibilities of more than 30 organizations at national, regional, and local levels to facilitate coordination in the resettlement process. This initiative was the first of its kind in Colombia's DRM history, where the government combined actions ranging from socioeconomic studies, shelter management, education, and social assistance, to land management and resettlement with the purpose of preventing a disaster.[7]

4.13 The World Bank supported the definition and validation of the objectives and instruments to implement the relocation defined in CONPES Document 3501. Since there was little international experience in benchmarking a country's policy and institutional capacity for risk management and prevention, a reduction in the number of people living in the high hazard zone of the Galeras volcano—no target defined—was chosen to indicate improved policy and institutional environment for disaster management and reduction because resettlement on such a large scale would not be possible otherwise.

The Implementation Completion and Results Report reported that by the end of 2011, 7.7 percent of the people living in the Galeras volcano danger zone had been relocated, but noted issues in the resettlement process (such as negative perception of the local population and communication problems between entities).

4.14 In December 2014, the DNP reviewed the progress in implementing the recommendations of CONPES Document 3501. Even though both the NDP of 2010–14 and the action plan of the UNGRD highlighted the process as a priority, there was a delay in implementing the agreed actions, such as analysis of the norms to develop the resettlement process and gathering the information to identify risks and define the plans supporting the entire process. Consequently, the target of completing all the actions by 2010 was missed. At the national level, 25 of the recommendations had been carried out, 6 were ongoing, and 7 remained pending (Colombia, DNP 2014). The review led the government to conclude that it should carry out individual instead of collective resettlements going forward.

4.15 Beyond the CAT DDO's support for implementing CONPES Document 3501, the program contributed in other ways to enhancing the Colombia's legal and institutional framework for DRM. The IDB's Index of Governance and Public Policies in Disaster Risk Management, for example, shows that Colombia substantially improved its DRM system, especially in terms of general framework for DRM, during 2000–13 (table 4.1).[8] In particular, Law 1523 of April 24, 2012, which benefited from discussions between the government and World Bank staff during the implementation of the CAT DDO, strengthened the legal basis for the DRM system as well as the authority of the UNGRD. As the main agency in charge of DRM in Colombia, the UNGRD moved from a dependency of the Ministry of Interior and Justice to an administrative department under the Office of the President. The law also authorized the MOF to carry out the necessary actions to improve the financial protection against disaster risk.

Table 4.1. Index of Governance and Public Policies in Disaster Risk Management, 2000–13

Components	**Year**				
	2000	**2005**	**2008**	**2010**	**2013**
Overall index	**26**	**36**	**36**	**39**	**58**
General framework	4	7	7	9	15
Identifying and knowing the risks	6	7	7	7	8
Reducing risk	7	8	8	8	12
Preparing the response	5	6	6	6	10
Planning recovery postdisaster	1	5	5	5	8
Financial protection	4	4	4	4	6

Source: BID 2015.
Note: numbers may not add up due to rounding.

4.16 Although this kind of support was not articulated as part of the CAT DDO program and was not captured in its results framework, stakeholders interviewed for this evaluation gave credit to the program because without it the World Bank could not have had a dialogue with Colombian authorities on DRM issues at such a level, nor could it have influenced Colombia's DRM policies as much. Over the past decade, as shown in several reports on DRM in Latin America, Colombia moved from being one of the least prepared countries in the region for natural disasters to having one of the most advanced DRM systems (BID 2010; Cardona 2008; IDEA 2005). The National Progress Reports that Colombia submitted to the United Nations Office for Disaster Risk Reduction on the implementation of the Hyogo Framework for Action show that between 2009 and 2013, Colombia improved in 9 of the 22 indicators of the framework and slipped in 1.[9]

OBJECTIVE 4: REDUCED FISCAL VULNERABILITY OF THE STATE TO NATURAL EVENTS

4.17 Efficacy of objective 4 is rated substantial.

4.18 In the 2006–10 NDP, the government referred explicitly to the need for defining appropriate strategies to finance risk transfer and to reduce fiscal vulnerability of the state to natural disasters. The 2010–14 NDP explicitly assigned to the Ministry of Finance the competency to design the strategy. This meant taking measures to reduce risk and improve physical and financial planning. The first step was to calculate the contingent liabilities from disaster risks. With support from the World Bank, the MOF prepared a study to estimate the costs of contingent liabilities, including those from natural disasters (Colombia MHCP 2011; World Bank 2012). The review defined a framework for contingent financing and recommended the use of a set of instruments to achieve maximum risk coverage at minimum cost.

4.19 In 2012, the MOF issued a framework for public financial management of natural disaster risk. It identified three priority policy areas and the actions for assessing, reducing, and managing the fiscal risk arising from natural disasters: (i) identification and understanding of fiscal risk due to natural disasters; (ii) financial management of disaster risk, including the implementation of innovative financial instruments; and (iii) catastrophe risk insurance for public assets. To enhance its use of additional financial protection instruments, the MOF evaluated the validity of a National Fund for Disaster Risk Management, risk transfer instruments, contingent credits, and a catastrophe risk derivative.

4.20 For insurance of public assets, the government has started assessing technical and legal options to improve public insurance. An immediate result of this was the preparation of a Manual for Good Practices of Public Insurance, which describes the procedures required to transfer risk through indemnity risk–based insurance. It also sought to improve the information system on public buildings, improve the insurance of road infrastructure through public-private partnership schemes, and encourage subnational entities to use ex ante financial protection against natural disasters. The government has built a database with information on public properties and their insurance policies, and has prepared the guidelines and established the objectives for insuring public property against natural disaster risks. For subnational entities, the government has sought to build their financial and technical knowledge to improve their management of insurance tools. To reduce the risk posed by the $46 billion contingent liabilities in its infrastructure concession contracts, which were not properly insured, for example, the government amended the law regulating its infrastructure concessions and adopted Law 1508 on public-private partnerships in 2012.

4.21 In December 2010, the CAT DDO funds were disbursed in three days following the established procedures. Although the injected liquidity covered just 1 percent of the estimated cost ($5 billion) for emergency response, rehabilitation, and reconstruction (World Bank 2012, vol. 2), it financed the initial recovery efforts and helped to reduce the risk perception of the country in the aftermath of a major disaster, thus protecting the government's access to financial markets for reconstruction financing. To ensure that assistance reach the affected population as quickly as possible, the CAT DDO prompted the government to develop and fine-tune the information system, organizational setup, and administrative procedures and processes so that each agency knew exactly what to do in case of emergency. This has long-lasting impact for Colombia and provides lessons for neighboring countries.

4.22 Since the closing of the CAT DDO, Colombia has continued to make progress in this area. The government has begun to use insurance to protect its financial position. To this end, the MOF has established a Risk Sub-Directorate in the Budget Directorate in charge of developing disaster risk financing and insurance instruments. The government has discharged contingent liabilities to infrastructure concessionaires by making it mandatory for them to insure against financial and natural risks. It has also become mandatory for government agencies to purchase insurance for their assets. In coordination with the MOF and the DNP, the Agencia Nacional de Contratación—a government agency in charge of government procurement—has issued guidelines on what to consider when government agencies buy insurance to protect their assets. The government is building a database of public properties, with information on age of buildings, materials used, quality of materials, and insurance, among other things.

5. Ratings

Overall Outcome

5.1 The overall outcome is rated satisfactory.

5.2 This rating reflects high relevance of the objectives, modest relevance of program design, and substantial achievement of the expected outcomes. There is evidence of significant improvement in the legal, institutional, and organizational framework for managing disaster risk in Colombia. As intended, the CAT DDO loan proceeds were released very quickly, providing critical liquidity in the initial phase of the government's postdisaster response.

5.3 Much of the contribution of the CAT DDO to strengthening the government's program for reducing natural disaster risk, however, was not captured by the program's results framework. In addition to important advances in each of the action areas supported under the program—which were amply documented in various World Bank, IDB, and government reports but poorly tracked through the program's results monitoring system—the CAT DDO allowed for a paradigm shift in the World Bank's dialogue with the government on DRM, and thereby permitting the World Bank to support the government's DRM agenda in a comprehensive way. This had not been possible before the CAT DDO.

5.4 However, the program as presented in the program document suffered from a serious lack of detail. The one and only prior action was not very demanding, the logical chain between the prior action and the expected outcomes was undefined, and the relevance of the results indicators was often unclear. This was partially explained by the newness of the CAT DDO instrument when it was deployed, so there were no good practice examples to follow and no past lessons to draw from. Another reason was that in the context of Colombia's high exposure to natural disasters, the government was very concerned about being able to satisfy the requirement that "the borrower must implement a DRM program" so as to maintain access to the contingent funds at all times. The indicators came from the government's own monitoring system, which could have been appropriate except that without any details of the program supported by the CAT DDO, their relevance to the program objectives could not be easily established.

Risk to Development Outcome

5.5 Risk to development outcome is rated negligible to low.

5.6 Colombia has built a strong system for managing disaster risks, which makes the country stand out among developing countries. The development has been gradual but steady. Thanks to heightened awareness of disaster risks and their human and financial costs, improvement in the legal, institutional, and organizational framework is likely to continue.

5.7 Colombia faces a pressing short-term fiscal situation now, which may affect the speed at which the system can change to improve its performance. However, the slowdown, if it happens, is unlikely to reverse the advances achieved in understanding, preventing, preparing for, and responding to natural disasters.

World Bank Performance

5.8 World Bank performance is rated moderately satisfactory.

Quality at Entry

5.9 The World Bank's long-term engagement with Colombia on DRM matters informed the design of the CAT DDO. The experience with implementing the Earthquake Recovery Project following the Eje Cafetero earthquake in 1999 and the two APLs in the 2000s was useful for defining the policy programs to move DRM-focus from rebuilding infrastructure ex post to preventing disasters and reducing financial risks ex ante. The contingent loan facility piloted under APL1 offered valuable lessons for determining the criteria for CAT DDO disbursement. The loan's four action areas followed the Comprehensive Approach to the Probabilistic Risk Assessment that the World Bank used to manage the risks of natural disasters.[10]

5.10 Colombia's experience with APL1 implementation informed the implementation arrangement of the CAT DDO. Under the APL1, the implementing agency was the Ministry of Interior, which lacked the power to influence other agencies to ensure smooth progress of project implementation. The MOF was the executing agency for the CAT

DDO.[11] Together with the DNP, the MOF elevated DRM issues to a strategic policy level and was more effective in ensuring collaboration of the relevant agencies.

5.11 The design fell short, however, in its lack of clarity and detail, as well as in the quality of the results indicators and the monitoring and evaluation arrangements. Because the program was one of the first CAT DDOs implemented by the World Bank, it was not clear at the onset what had to be done for the program to be considered on track. Concerns about the speed of disbursement led to selecting indicators that would ensure fast disbursement.

5.12 Quality at entry is rated moderately satisfactory.

QUALITY OF SUPERVISION

5.13 The World Bank carried out five supervision missions between 2009 and mid-2011, which was adequate because the loan was fully disbursed in December 2010. Supervision focused on improving the institutional quality of the DRM framework and on ensuring that the targets were met so that the funds could be disbursed when needed. To these ends, the World Bank worked closely with the MOF and the DNP to develop an operational manual. The manual established clear and step-by-step procedures that the World Bank and the government would follow for disbursing the loan, and defined the reporting mechanism that the government would use to communicate to the World Bank its progress on the Development Policy Letter and the Project Development Indicators. The World Bank and the government organized simulation exercises to ensure that both sides were ready to process disbursement applications when disasters materialized. Assistance from the World Bank was essential to impose a certain pace in developing the policy on DRM. Finally, the World Bank was able to process and disburse the loan within three days of receiving the government's request to access the CAT DDO funds.

5.14 Quality of supervision is rated satisfactory.

Borrower Performance

5.15 Borrower performance is rated satisfactory.

5.16 The government, represented by the MOF (the executing agency) and the DNP (the technical agency in charge of design) fully owned the program supported by the CAT DDO. Given the frequency of natural disasters in Colombia, the MOF had strong interest in strengthening the financial aspects of DRM, while the DNP was interested in developing the institutional and legal framework to support the DRM system. These interests determined the division of labor in the loan. The MOF focused on the financial risks and raised the profile of disaster risk management in government policy up to the presidential level. The DNP, as a clearinghouse of information from all agencies, worked on designing and developing the policies and preparing the operations manual that supported the reform program, as well as the loan's disbursement procedures. Having the two entities working on this loan helped to develop the legal framework for DRM in Colombia (Law 1523 of 2012) and to create a high-level agency to manage disaster risk (the Unidad Nacional para la Gestión del Riesgo de Desastres [National Unit for Disaster Risk Management] under the Office of the President).

5.17 In addition, the government created an adaptation fund under the MOF in charge of the reconstruction of damaged infrastructure. This fund was originally created to help deal with La Niña of 2010–11 and it was supposed to close after the recovery was completed; it continues to exist and it is not clear how it fits into the institutional structure of DRM in Colombia.

Monitoring and Evaluation

5.18 Monitoring and evaluation is rated modest.

5.19 **Monitoring and evaluation design.** The design of the monitoring and evaluation framework failed to take stock of the literature on disaster risk indicators in Latin America, to which Colombia had contributed—for example, IDB as well as the references therein (BID 2005). The outcome indicators consisted mostly of inputs and intermediate outputs. Meeting the targets was necessary but not sufficient for achieving the objectives. For example, building monitoring stations may or may not lead to better identification, prevention, and mitigation of disaster risk unless the information generated by the stations is used effectively. Similarly, it is unclear why the number of people resettled from the Galeras volcano area would indicate strengthened policies and institutions to manage disaster risks in Colombia.

5.20 **Monitoring and evaluation implementation.** Monitoring and evaluation was carried out through frequent visits to the country and regular communications with the MOF, DNP, and the Directorate for Disaster Prevention and Attention in the Ministry of Interior and Justice. The DNP and the MOF collected the data required in the program results matrix. DNP worked to ensure that the evidence be reliable and of good quality. Neither the World Bank nor the government considered it necessary to revise the indicators during program implementation to measure its achievements properly.

5.21 **Monitoring and evaluation utilization.** As the results indicators measured outputs and application of inputs, they provided insufficient information for decision making. There is no evidence of an attempt to verify the logic and causality between inputs, outputs, and outcomes and to rethink the results. The overall limited attention to program monitoring and evaluation suggests that it did not affect the direction of the operation.

Social and Environmental Impacts

5.22 Natural disasters in Colombia affect mostly poor people. The operation sought to reduce disaster risks and improve disaster mitigation, so was likely to benefit poor people in particular. The program document did not specify where that benefit would come from, and only noted that since the "CAT DDO reduces the risk of interruption and diversion of resources from the other pillars of the NDP, the prior action taken by the government is expected to have indirect positive poverty and social impacts" (World Bank 2008a). The program is likely to benefit the poor by helping build institutions that lead to a faster response when disaster strikes, and by preventing or reducing the magnitude of disasters, which the improved institutions will make it possible. The better institutions will be reflected, among other things, on “better environmental management in territorial planning, through improving security of water supply and sanitation, and through strengthened integrated watershed management” (World Bank 2008a).

5.23 The program document noted that the loan fell under the Environment Sustainability pillar of the CPS, the objective of which was to support the government’s NDP and the Millennium Development Goal objective of ensuring environmental sustainability. Loan preparation included various policy notes for the Uribe administration (2006–10) and a country environmental analysis, which identified that natural disasters (such as flooding and landslides) constituted one of the costliest environmental problems, and together with urban air pollution, land degradation, sanitation, and hygiene, cost about 3.7 percent of GDP. The operation sought to improve the country’s ability to prevent the risks and mitigate the damages of natural disasters, which was “likely to have a significant positive impact on the environment” (World Bank 2008a). The document did not specify the type of impacts and their corresponding benefits.

6. Lessons

6.1 **The experience with the CAT DDO in Colombia shows that the instrument can help advance the DRM reform agenda and strengthen the system to respond to disaster risks**. As a DPL, the loan shifted the World Bank’s counterpart on DRM issues from the Ministry of the Interior and Justice to the MOF and the DNP. This allowed the World Bank to have a dialogue with the government at a higher, more strategic level than in the past, and to ensure that financial dimensions of disaster risk are fully incorporated in the DRM system and the costs and benefits of the proposed solutions are assessed appropriately. Moreover, with its renewal feature, the CAT DDO provided a platform for the World Bank to engage with and support the government over the long term.

6.2 Naturally, **a CAT DDO alone is likely to be insufficient to build a system to manage disaster risks**. In Colombia, the CAT DDO was part of a substantial DRM portfolio and culminated an engagement that included both knowledge and financial support over a long time. Even so, it took time for the World Bank’s ideas to be accepted, and costly disasters had to occur for the government to seriously consider the ideas and take action. But when the government did come around, the World Bank was ready to assist. The common understanding of what needed to be done helped to ensure good implementation of the program despite lack of experience with this new instrument on the part of both the World Bank and the government.

6.3 At the same time, **the design and implementation of the CAT DDO in Colombia raised some issues that deserve further clarification**. There was a tension between the loosely defined requirement that “the borrower must implement a DRM program” and the government’s concern over maintaining access to the CAT DDO funds at all time. This concern was a key reason why the government opted for modest results indicators to be sure that it would not lose access to the contingent credit for missing program targets. Obviously, having a secure access to a contingent line of credit is an important part of any disaster financing strategy. It would thus be very useful for the World Bank to provide further clarity on how the requirement to implement a DRM program would be assessed as a disbursement condition and how it relates to CAT DDO results monitoring.

Bibliography

BID (Banco Interamericano de Desarrollo). 2005. *Sistema de Indicadores para la Gestión del Riesgo de Desastre*, Programa para América Latina y el Caribe, Informe Técnico Principal, Estudio coordinado por Instituto de Estudios Ambientales, Universidad Nacional de Colombia en Manizales. Washington, DC: BID-División del Medio Ambiente, Departamento de Desarrollo Sostenible.

———. 2010. "Indicators of Disaster Risk and Risk Management, Program for Latin America and the Caribbean–Summary Report." Technical Notes IDB-TN-169, BID, Washington, DC. https://publications.iadb.org/handle/11319/.

———. 2015a. "Indicadores de Riesgo de Desastre y de Gestión de Riesgos Programa para América Latina y el Caribe: Colombia." Nota Técnica IDB-TN-792, BID, Washington, DC. http://saludmesoamerica2015.org/es/publicaciones/detalle,7101.html?id=78804&dcLanguage=es&dcType=Technical%20Notes.

———. 2015b. "Índice de Gobernabilidad y Políticas Públicas en Gestión de Riesgo de Desastres (iGOPP) Informe Nacional Colombia." División de Medio Ambiente, Desarrollo Rural y Gestión del Riesgo por Desastres, Nota Técnica IDB-TN 855 BID, Washington, DC. https://publications.iadb.org/bitstream/handle/11319/7245/iGOPP_Colombia.PDF?sequence=1&isAllowed=y.

Cardona O.D. 2008. "Indicadores de Riesgo de Desastre y Gestión de Riesgos: Informe resumido." BID/IDEA Programa de Indicadores para la Gestión de Riesgos para América Latina y el Caribe, Banco Interamericano de Desarrollo, BID, Washington, DC. http://idea.unalmzl.edu.co.

Colombia. 2012. "Contingent Liability Management in Colombia and the Financial Strategy Associated with Natural Disasters." In Improving the Assessment of Disaster Risks to Strengthen Financial Resilience: A Special Joint G20 Publication by the Government of Mexico and the World Bank, 132-41. Washington, DC: World Bank. http://documents.worldbank.org/curated/en/606131468149390170/Improving-the-assessment-of-disaster-risks-to-strengthen-financial-resilience.

Colombia, DNP (Departamento Nacional de Planeación). 2006. *National Development Plan 2006–2010: Estado Comunitario: Desarrollo para Todos*. Bogotá, D.C.

———. 2007. Lineamientos de política para implementar un proceso de gestión integral del riesgo en la zona de amenaza volcánica alta del Volcán Galeras–Documento CONPES 3501. Bogotá, D.C.

———. 2008. Concepto favorable a la nación para contratar empréstitos externos programáticos de libre destinación y líneas de crédito contingentes con entidades financieras internacionales incluyendo la banca multilateral de acuerdo a los montos establecidos por el CONFIS. Bogotá, D.C.

———. 2010a. Lineamientos de política para la reducción del riesgo ante la amenaza de flujo de lodo (avalancha) en el Volcán Nevado del Huila–Documento CONPES 3667. Bogotá, D.C.

———. 2010b. *National Development Plan 2011–2014: Prosperity for All*. Bogotá, D.C.

———. 2014. Seguimiento: CONPES 3501: Lineamientos de política para implementar un proceso de gestión integral del riesgo en la zona de amenaza volcánica alta del volcán Galeras; CONPES 3667 Lineamientos de política para la reducción del riesgo ante la amenaza de flujo de lodo (Avalancha) en el volcán nevado del Huila.

——— 2015. *National Development Plan 2014–2018: Prosperity for All for a New Country*. Bogotá, D.C.

———. 2016. Informe del Gobierno de Colombia-Préstamo de política de desarrollo con opción de desembolso diferido ante riesgo catastrófico CAT DDO II–Contrato de préstamo BIRF 8184-CO, Bogotá.

Colombia, MHCP (Ministerio de Hacienda y Crédito Público). 2011. *Contingent Liabilities: The Colombian Experience.* Republic of Colombia Ministry of Finance and Public Credit, Bogotá. http://treasury.worldbank.org/bdm/pdf/Contingent_Liabilities_Colombian_Experience.pdf.

———. 2012. *Colombia: Policy Strategy for Public Financial Management of Natural Disaster Risk.* Minhacienda, The World Bank–GFDRR, and Switzerland-Federal Department of Economic Affairs. https://www.gfdrr.org/sites/gfdrr/files/Colombia_Policy_Strategy_for_Public_Financial_Management_of_Natural_Disaster_Risk.pdf.

Colombia, SGC (Servicio Geológico Colombiano). No date. Resultados Proceso de Ampliación y Modernización de las Redes de Monitoreo de la Actividad Sísmica del País. Red sismológica nacional de Colombia.

Colombia, UNGRD (Unidad Nacional para la Gestión del Riesgo de Desastres). 2012. Líneas estratégicas y avances de priorización de zonas de intervención. Bogotá.

———. 2014. Documento de priorización de líneas estratégicas y zonas de intervención en gestión del riesgo de desastres en Colombia 2014–2018. Bogotá.

Econometría, Consultores. 2013. Evaluación institucional y de resultados del Programa de reducción de la vulnerabilidad fiscal del Estado frente a desastres naturales (APL-1). Informe Final. Bogotá D.C. Ministerio de Vivienda, Ciudad y Territorio.

IDEA. 2005. "Sistema de Indicadores para la Gestión del Riesgo de Desastres: Informe Técnico Principal." Programa de Indicadores para la Gestión de Riesgos BID-IDEA, Instituto de Estudios Ambientales, Universidad Nacional de Colombia, Manizales. http://idea.unalmzl.edu.co.

Tsuneki, Hori. 2014. "Estructura de los Indicadores de Riesgo de Desastre y de Gestión de Riesgos, Medio Ambiente, Desarrollo Rural y GRD (INE/RND) Banco Interamericano de Desarrollo." Presentation at a conference in Buenos Aires, 14 de octubre de 2014. http://www.iirsa.org/admin_iirsa_web/Uploads/Documents/catastrofes_buenosaires_14_anexo3_Hori.pdf.

United Nations–ISDR (International Strategy for Disaster Reduction). 2007. *Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters*. Geneva.

Universidad Nacional de Colombia-Manizales, Instituto de Estudios Ambientales. 2004. BID, Indicadores para la Gestión de Riesgo, Indicadores para la Gestión de Riesgos-Resultados de la Aplicación del Sistema de Indicadores en Doce Países de las Américas. octubre 2004, Figuras 35–39 for 1985, 1990, 1995, 2000.

World Bank. 2005. "Colombia—Natural Disaster Vulnerability Reduction Project." Project Appraisal Document Report 30123, World Bank, Washington, DC. https://hubs.worldbank.org/docs/imagebank/pages/docprofile.aspx?nodeid=5812539.

———. 2007. *Development Actions and the Rising Incidence of Disasters*. Independent Evaluation Group, Evaluation Brief 4. Washington, DC: World Bank. http://ieg.worldbankgroup.org/Data/reports/developing_actions.pdf.

———. 2008a. "Colombia—Disaster Risk Management Development Policy Loan with Catastrophe Deferred Draw Down Option Project." Program Document Report 46133-CO, World Bank, Washington, DC. https://hubs.worldbank.org/docs/imagebank/pages/docprofile.aspx?nodeid=10051007.

———. 2008b. "Colombia—Country Partnership Strategies, FY08–11." World Bank, Washington, DC.

———. 2008c. "Memorandum to Executive Directors: Proposal to Enhance the IBRD Deferred Drawdown Option (DDO) and to Introduce a DDO Option for Catastrophic Risk." World Bank, Washington, DC.

———. 2011. "Colombia—Country Partnership Strategies, FY12–16." World Bank, Washington, DC.

———. 2012. *Análisis de la gestión del riesgo de desastres en Colombia: Un aporte para la construcción de políticas públicas, Volumen 1-Resument ejecutivo, y Volumen 2, Texto principal*. Washington, DC: World Bank. Coordinated by Ana Campos G., Niels Holm-Nielsen, Carolina Díaz G., Diana M. Rubiano V., Carlos R. Costa P., Fernando Ramírez C, and Eric Dickson.

World Bank and Swiss Confederation. 2012. *Fiscal Risk Assessment of Contingent Liabilities Associated with Natural Disasters: The Colombian Experience.* World Bank–GFDRR and Swiss Confederation–Federal Department of Economic Affairs.

---

[1] This report distinguishes between natural hazards and unnatural disasters following the distinction presented in *Natural Hazards, UnNatural Disasters: The Economics of Effective Prevention* (World Bank and United Nations 2010), https://openknowledge.worldbank.org/handle/10986/2512.

[2] The SNPAD is led by a Comité Nacional, at which the president of Colombia presides. SNPAD has a technical committee (Comité Técnico Nacional), an operations committee (Comité Operativo Nacional), and advisory commissions (Comisiones Nacionales Asesoras) that advise on specific topics. The national coordination is in the disaster prevention response to disasters directorate (Dirección General para la Prevención y Atención de Desastres), affiliated with the Interior Ministry (Ministerio del Interior). Each department and municipal administration has a regional or local committee to prevent and respond to disasters, at which the respective governor or major presides as head of the SNPAD in its territory.

[3] In describing the contingent component, the project appraisal document for the APL1 said the subcomponent would be "under the purview of the Ministerio de Hacienda, which would provide the basic information on imports based on customs declarations, with supporting documentation maintained at the Dirección de Impuestos y Aduanas Nacionales (the National Customs and Tax Office is part of the Ministry of Finance). The component would finance 50 percent of the delivered cost of eligible imports, excluding import duties and taxes…. The subcomponent would have as a disbursement condition the declaration of a natural disaster of national amplitude by the President of the Republic of Colombia [sic] as specified in Article 19 in Decree 919 of May 1, 1989. Upon declaration of a disaster, the Borrower will submit to the World Bank an initial recovery plan documenting the disaster declaration, the related budget appropriation and the proposed use of the funds" (World Bank 2005, 49).

[4] A CAT DDO was prepared for Costa Rica at the same time and approved in September 2008.

[5] Fondo de Adaptación is still active, has large amounts of money, and operates in parallel and independently of the UNGRD, an odd institutional arrangement.

[6] The Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters (HFA) is the first plan to explain, describe, and detail the work that is required from all different sectors and actors to reduce disaster losses.

[7] A second initiative was adopted in 2010 to protect the population living on the banks of the Paez River from the threat of mud flows coming from the Volcán Nevado del Huila (Colombia, DNP 2010a).

[8] The Index of Governance and Public Policies in Disaster Risk Management provides "a qualitative measure of management based on predefined targets or benchmarks that risk management efforts should aim to achieve." It retains the Índice de gestión de riesgo de desastres's risk identification, risk reduction, and financial protection components; adds a new component—general governance framework for managing disaster risk, and splits in two the component of managing disasters—preparation for response and planning recovery.

[9] Ratings reported by Colombia for the periods 2009–11, 2011–13, and 2013–15 can be found at https://www.unisdr.org/we/coordinate/hfa.

[10] The Comprehensive Approach to the Probabilistic Risk Assessment covers (i) risk identification; (ii) risk reduction, by generating land planning tools and conducting cost-benefit analysis; (iii) managing disasters in the stages of response, rehabilitation, and recovery; and (iv) financial protection.

[11] The Directorate of Risk in the Direction of Public Credit managed the CAT DDO.

Appendix A. Basic Data Sheet

Key Project Data (amounts in US$, millions)

	Appraisal estimate	Actual or current estimate	Actual as % of appraisal estimate
Total project costs	150	150	100
Loan amount	150	150	100

Cumulative Estimated and Actual Disbursements

	FY12
Appraisal estimate (US$, millions)	150
Actual (US$, millions)	150
Actual as percent of appraisal	100
Date of final disbursement	June 25, 2009

Project Dates

	Original	Actual
Initiating memorandum	11/24/2008	10/09/2008
Negotiations	3/23/2009	11/04/2008
Board approval	12/18/2008	12/18/2008
Signing	6/12/2009	6/11/2009
Effectiveness	06/25/2009	06/25/2009
Closing date	1/31/2012	01/31/2012

Staff Time and Cost

	Staff Time and Cost (World Bank Budget Only)	
Stage	**No. of staff weeks**	**US$, thousands (including travel and consultant costs)**
Lending		
FY 2009	2.4	28.0
Total:	2.4	28.0
Supervision/ICR		
FY 2009	5.03	19.7
FY 2010	8.89	34.2
FY 2011	7.32	18.0
FY 2012	19.38	59.8
Total:	**40.62**	**131.7**

Task Team members

Names	Title	Unit
Lending		
Niels B. Holm-Nielsen	TTL – Senior Disaster Risk Management Specialist	LCSUW
Francis Ghesquiere	Lead Urban Specialist	LCSUW
Carlos Costa	Consultant	LCSUW
Edward Anderson	ET Consultant	LCSUW
Ana Maria Torres	Consultant	LCSUW
Armando Guzman	Senior Disaster Risk Management Specialist	LCSUW
Emma Phillips	Consultant	LCSUW
Joaquin Toro	Disaster Risk Management Specialist	LCSUW
Ana Daza	Program Assistant	LCSUW
Maricarmen Esquivel	Consultant	LCSUW
Christian Yves Gonzalez	Economist	LCSPE
David Rosenblatt	Lead Economist and Sector Leader	LCSPE
Manuel Vargas	Senior Financial Management Specialist	LCSFM
Supervision		
Eric Dickson	Disaster Risk Management Specialist	LCSUW
Ana Campos Garcia	ET Consultant	LCSUW
Francis Ghesquiere	Program Manager	SASDU
Olivier Mahul	Program Coordinator	FCMNB
Ulrich Cedric Myboto	Consultant	CCAVP-LVL
Ana Maria Torres	Consultant	BDM

Appendix B. Main Macroeconomic Indicators and Other Indicators

Table B.1. Main Macroeconomic Indicators, Colombia 2004–15

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
A. Growth and inflation												
1. GDP growth (percent)	5.3	4.7	6.7	6.9	3.5	1.7	4.0	6.6	4.0	4.9	4.4	3.1
2. Inflation (percent GDP deflator)	7.3	5.6	5.8	5.0	7.6	3.4	3.9	6.7	3.0	2.0	2.1	2.6
B. Fiscal (percent of GDP)												
1. Consolidated nonfinancial public sector												
a. Expenditure	26.2	25.9	28.1	28.2	26.3	29.1	29.2	28.6	27.9	28.9	31.3	
b. Fiscal balance	-1.0	-0.2	-0.8	-1.0	0.1	-2.4	-3.1	-1.8	0.4	-0.8	-2.0	
2. Central government												
a. Expenditure (total payments)	17.4	17.5	18.1	17.7	17.8	18.4	17.6	18.0	18.4	19.2	19.1	19.2
b. Fiscal Balance (total)	-4.5	-4.0	-3.4	-2.7	-2.3	-4.1	-3.9	-2.8	-2.3	-2.3	-2.4	-3.0
C. Money and interest rates												
1. Monetary base (% change end of year)	19	18	19	20	17	10	13	14	10	14	15	17
2. M1 (% change – end of year)	16	18	18	12	12	8	18	11	6	17	12	10
3. Nominal interest rates – implicit (percent)												
a. Lending rate	12.6	9.5	8.6	10.6	12.5	12.3	9.1	10.8	12.7	12.1		
b. Deposit rate	5.5	4.5	4.2	5.2	6.3	5.3	2.9	3.5	4.7	3.8		
4. Real interest rates (percent)												
a. Lending rate	4.9	3.7	2.7	5.2	4.6	8.6	5.1	3.9	9.4	9.9		
b. Deposit rate	-1.7	-1.0	-1.5	0.1	-1.2	1.8	-0.9	-3.1	1.6	1.8		
5. Loan loss provision costs (percent)	-2.72	0.7	0.63	1.41	2.87	2.53	1.45	1.57	2.32	2.11		
D. Trade and exchange rate												
1. Exchange rate (pesos per US dollar)	2,626	2,321	2,358	2,078	1,966	2,156	1,898	1,848	1,798	1,869	2,001	2,746
2. Terms of trade	111	126	132	139	147	139	161	185	174	162	148	111
3. International reserves (months of imports)	5.5	5.1	4.6	4.8	4.7	5.7	5.1	4.5	4.6	5.5	5.9	7.5
4. Current account (percent of GDP)	-0.7	-1.3	-1.8	-2.9	-2.6	-2.0	-3.0	-2.9	-3.1	-3.2	-5.1	-6.4
E. External debt and operations with IMF and World Bank												
1. Public (percent of GDP)	22	17	16	14	12	16	14	13	13	14	16	23

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
2. Private (percent of GDP)	11.7	9.8	8.5	7.6	6.9	7.1	8.8	9.9	8.8	10.5	11	15.2
3. Operations with the IMF (billion special drawing rights—dates arrangement was in place—SB in 2004–06 and flexible credit line thereafter)	1.55	0.41	0.41	0.00	0.00	6.97	6.97	2.32	3.87	3.87	3.87	3.87
4. World Bank loans (US$, billions)	0.58	0.95	0.58	0.65	2.17	0.67	0.78	0.69	0.61	0.67	1.60	1.40

Sources: Banco de la República, direct information for fiscal, and www.banrep.gov.co for all other values but lending and deposit rates, which come from table 1 of Daude Christian and J. Pascal (2015), "Efficiency and Contestability in the Colombian Banking System," OECD Economics Department Working Papers, No. 1203, OECD Publishing, Paris. http://dx.doi.org/10.1787/5js30twjgm6l-en.
Note: IMF = International Monetary Fund.

Table B.2. Municipalities that Received Support for Territorial Development and Disaster Risk Management Plans and Action Plans Elaborated, 2006–13

Product	**Scope**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013***	**Total**
Municipalities with TA	TA for POTs and DRM (MAVDT)	100	178	111	139	178	87	114	100	**1007**
	TA for PMDs and DRM (UNGRD)			42	80	167	150	121	114	**674**
Plans Elaborated	Action Plans integration of risks in POTs	97	33	45	164	40	27	22	114	**542**
	Municipal DRM Plans			39	70	152	131	121	114	**627**

Source: Econometría, Consultores (2013). "Evaluación institucional y de resultados del Programa de reducción de la vulnerabilidad fiscal del Estado frente a desastres naturales (APL-1)." Informe Final. Bogotá D.C. Ministerio de Vivienda, Ciudad y Territorio.
Note: Up to August 31, 2013. DRM = disaster risk management; MAVDT – Ministerio de Ambiente y Desarrollo Sostenible; PMD – Planes municipales de desarrollo; POT=Plan de ordenamiento territorial; TA = technical assistance; Unidad Nacional para la Gestión del Riesgo de Desastres (National Unit for Disaster Risk Management).

Appendix C. List of Persons Met

Name	*Title*	*Organization*
Issam A. Abousleiman	Country Manager	World Bank
Eduardo Somensato	former Country Manager	World Bank
Niels B. Holm-Nielsen	Lead Disaster Risk Management Specialist	World Bank
Eric Dickson	Senior Urban Specialist	World Bank
Anna Wellenstein	Sector manager	World Bank
Ana Campos Garcia	Senior Disaster Risk Management Specialist	World Bank
John Factora	Senior Operations Officer	World Bank
Paula Restrepo Cadavid	Senior Economist	World Bank
Francis Ghesquiere	Manager	World Bank
Ana Maria Torres	Consultant	World Bank
Carolina Renteria	former Director, DNP	World Bank
Viviana Lara Castilla	Former Directora General de Crédito Público y del Tesoro Nacional	Ministerio de Hacienda y Crédito Público
Carolina Rojas	former Deputy in Dirección de Crédito Público	Ministerio de Hacienda y Crédito Público
Lina Maria Mondragon	Subdirección de Crédito Público	Ministerio de Hacienda y Crédito Público
Fabian Diaz	Professional	Ministerio de Hacienda y Crédito Público
Dora Lucia Solano	Professional	Ministerio de Hacienda y Crédito Público
Ivan Villa	Professional	Ministerio de Hacienda y Crédito Público
Andres Quevedo	Professional	Subdirección de Riesgo en Dirección de Crédito Público
Andrea Barragan	Professional	Subdirección de Riesgo en Dirección de Crédito Público
Esteban Velasco	Professional	Subdirección de Riesgo en Dirección de Crédito Público
Carolina Diaz	Coordinator, Risk management group	Departamento Nacional de Planeación
Harold Mera	Professional – Division of External Financing	Departamento Nacional de Planeación
Julian Garcia	Professional	Departamento Nacional de Planeación
Carlos Iván Marquez	Director	National Unit for Disaster Risk Management, Presidency of the Republic

Name	*Title*	*Organization*
Gerardo Jaramillo	Secretario General	National Unit for Disaster Risk Management, Presidency of the Republic
Gina Pacheco	Dirección de Planeación	National Unit for Disaster Risk Management, Presidency of the Republic
Banjamin Collantes	Asesor Jurídico	National Unit for Disaster Risk Management, Presidency of the Republic
Daniela Villalba	Secretaria General	National Unit for Disaster Risk Management, Presidency of the Republic
Olga Lucia Bautista	Professional	Ministry of Environment
German Arce	Director, former Director de Crédito Público in Ministerio de Hacienda y Crédito Público	Fondo de Adaptación
Sandra Correa	Jefe de Planeación	Fondo de Adaptación
Doris Suaza		Fondo de Adaptación
Pedro Chavarro	former coordinator UNGRD	Econometria

Appendix D. Borrower Comments

Comments were provided by Lina María Mondragón Artunduaga, Subdirector Técnico, Subdirección de Financiamiento con Organismos Multilaterales y Gobiernos, Colombia.

Summary page xiii

- Four action areas bullet 4: Reduce the fiscal vulnerability of the state to natural disasters.
  - y mantener la sostenibilidad macroeconomica
- Paragraph 5: calculating the contingent liabilities from disaster risks.
  - El gobierno ha avanzado en la recopilación de información para analizar la calidad de aseguramiento y el calculo de un pasivo contingente se realizó para un terremoto con un retorno de 250 años.
- Among the key findings and lessons are:
  - Podría incluirse que también fue una ventana de oportunidad para evaluar otros instrumentos financieros catastróficos con el BM.

Background and Context

WORLD BANK ENGAGEMENT

- Paragraph 1.10: Government's request
  - Para complementar: Cumpliendo el requisito de declaratoria de emergencia nacional como se acordó dentro del contrato de préstamo.

Objectives, Design, and their Relevance

OBJECTIVES

- Paragraph 2.1: Government's program for reducing the fiscal risks resulting from adverse natural events.
  - Reducción del riesgo fiscal. No es preciso decir que es la reducción del riesgo del evento natural.
- Paragraph 2.4: The 2014-2018 NDP
  - El PND 2010-2014 es el plan en el cual se establece la necesidad de crear una estrategia para reducir la vulnerabilidad fiscal del estado ante desastres naturales.
- Table 2.1: Number 4: Fiscal vulnerability and risk transfer:
  - No solo establece la trasferencia del riesgo, consiste en una adecuada estrategia financiera para reducir la vulnerabilidad.

Relevance of Design

POLICY OF DESIGN

- Table 2.2 Policy of Matrix: The government will have defined a framework for contingent financing. On October 24, 2008, the government passed a policy document (CONPES 3545) providing the basis for such a framework.
  - En el 2012 el MHCP establece la estrategia de protección financiera ante desastres naturales

Achievement of Objectives

- Objective 1: Improved Risk Identification and Monitoring and Increased Awareness, paragraph 4.6: replaced
  - El Fondo de Calamidades no fue sustituido por el FNGRD. el FC se convirtió en el FNGRD ampliando las competencias y objetivo.

- Objective 4: Reduced Fiscal Vulnerability of the State to Natural Events
  - paragraph 4.18: In the 2016-2018 NDP
    - En el PND del 2010-2014 fue donde se hizo explícito y dio la competencia al Ministerio de Hacienda de diseñar la estrategia.
  - paragraph 4.20: and encourage subnational entities to use ex ante financial protection against natural disasters.
    - Además de estas acciones, se ha consolidado la información de bienes públicos con sus pólizas en una base de datos, se elaboraron los lineamientos y objetivos para el aseguramiento de los bienes fiscales ante la ocurrencia de desastres por fenómenos de la naturaleza, se estructuraron los AMP para intermediarios de seguros y se esta avanzando en la estructuración de AMP para aseguradores
    - Ademas de promover el aseguramiento en las subnacionales también se han capacitado en cuanto conocimientos técnicos y financieros para una buena gestión financiera en seguros.