I. Introduction and Context

Country Context

1. Colombia’s main challenge related to disaster risk management (DRM) is to reduce some of the existing extremely high levels of vulnerability. The country is struggling to understand disaster risk at local and sectoral levels. Without this knowledge base, efficient disaster risk management is impossible. Furthermore, the reduction of vulnerability requires investments in structural mitigation or resettlement of people from high-risk areas. At the same time, improvement and application of risk management in planning tools are needed in order to decrease the constant regeneration of unacceptable high levels of vulnerability that to a great extent result from inadequate land use management and inappropriate building practices. Finding an institutional setup that is conducive to enabling subnational governments to effectively invest in risk reduction and improve the integration of understanding of hazard risk in their development planning will be a critical element.

2. Colombia has made some significant advances in disaster risk management over the past decades. Efforts have focused on improving the monitoring of natural hazards, the enforcement of building codes (since 1984), and organizing local disaster response capacity. This has led to a success in reducing the loss of lives. However, the damages and losses to property and livelihoods due to natural hazards are still growing every year. Over the last 40 years natural disasters have
produced losses that amount to US$7.1 billion, an average annual loss of US$177 million. There is an evident increase in the incidence of disastrous events, rising from 5,657 reports between 1970 and 1979 to 9,270 reports between 2000 and 2009.

3. One of the most important drivers of natural hazard risk is where people and assets are located. The dramatic increase in number of disaster events reported in Colombia over the past decade is not due to a change in the hazard patterns. It is a result of inadequate land use planning. Since 1997, the priority has therefore been to strengthen the incorporation of DRM in land use management plans (POTs-Planes de Ordenamiento Territorial) at the municipal level and developing associated risk management strategies. With financing from the World Bank through the Colombia Disaster Vulnerability Reduction Program (DVRP P082429), the Ministry of Housing, City and Territory (MVCT-Ministerio de Vivienda, Ciudad y Territorio) (then Ministry of Environment, Housing and Territorial Development, MAVDT-Ministerio de Ambiente, Vivienda y Desarrollo Territorial) and the National Unit for Disaster Risk Management (UNGRD-Unidad Nacional para la Gestión del Riesgo de Desastres) (then Risk Management Directorate, DGR-Dirección de Gestión del Riesgo) have provided support to 795 municipalities (out of a total of 1,102 municipalities in Colombia) to formulate risk management strategies and incorporate DRM in the POTs.

4. This process has advanced rapidly in some larger cities (of more than 100,000 inhabitants), which are among the leaders in DRM in Latin America. However, approximately 95% (1,050) of municipalities in Colombia have had significant difficulties in making any progress on disaster risk management due to low technical capacities and lack of investments (less than 2.3% of their total investments for the period 2002–2008, equivalent to US$6.90 per capita each year).

5. The risk management strategies have in some cases been integrated into municipal development plans and led to municipal investment projects with specific DRM objectives such as risk analysis and monitoring networks, landslide and flood mitigation works, resettlement of families living in high-risk areas, and structural reinforcement of essential buildings (hospitals, schools, etc.), among others. Cities like Bogota, Medellin, and Manizales have mature institutional systems and technical capacity in place to manage disaster risk. These cities’ development plans include important disaster risk management investments. Between 2002 and 2008, Bogota, Medellin, and Manizales together represented 43% of total investment on the municipal level (out of 1,102 cities). The annual DRM investment per capita is on average US$11.93 in Bogota, US$9.53 in Manizales, and US$8.26 in Medellin, compared with cities like Barranquilla where investments per capita were US$2.96.

6. At a sectoral level, DRM improvements have been sparse because of the lack of prioritization and resource allocation by ministries in charge of implementation. There are few sectoral diagnoses that indicate any real DRM advances. The only two studies which constitute a general overview of the National Disaster Prevention and Relief System across sectors was prepared by the Comptroller General’s Office in 2007 and by the Bank at the beginning of 2011, showing that the principal advances are in housing, health, education, and agriculture. The Ministry of Housing, City and Territory with the support of the Colombian Geological Service (SGC-Servicio Geológico Colombiano) (then INGEOMINAS), and the Colombian Association of Seismic Engineering (AIS-Asociación Colombiana de Ingeniería Sísmica) has updated the seismic building design and construction standards that are considered state-of-the-art at the international level and are widely implemented. The construction code establishes mandatory vulnerability studies and
retrofitting for essential buildings for disaster response and community service in case of not complying with the seismic standards, which has had a positive impact on the health sector, which has evaluated and reinforced some main hospitals, and in the education sector, which started the inventory of schools at the national level.

Sectoral and Institutional Context

7. Colombia is prone to a number of natural hazards that represent a serious challenge for its sustainable development. Annually Colombia suffers more than 600 natural disasters, having the highest rate of recurrent natural disasters in Latin America. Additionally, in the past three decades Colombia has suffered from six major earthquakes, four volcanic eruptions, major landslides, and extensive flooding. This vulnerability is further aggravated by continued population growth and a subsequent ever increasing concentration of settlements. Furthermore, recent trends in global climate change linked to increased climatic variability will likely exacerbate the country's exposure to floods, erosion, landslides, and drought.

8. Recognizing the importance of dealing with disasters before they happen, Colombia has for the past two decades institutionalized a system for comprehensive disaster risk management. The Government’s commitment to institutionalize disaster risk dates back to 1989 when, in the aftermath of the Popayan earthquake, it established the National System for Disaster Management and Prevention. The increasing awareness of the importance of establishing a comprehensive disaster risk management strategy is reflected in the inclusion of this subject in the 2002-2006 and 2006-2010 National Development Plans NDP. The 2002-2010 NDP included the reduction of fiscal vulnerability due to natural disasters and the 2006-2010 NDP outlined a strategy with four specific areas of action to improve the effectiveness of reducing risk associated with adverse natural events. These action outlined in the 2006-2010 plan were: (i) to improve risk identification and monitoring and augment awareness, (ii) to increase measures for risk reduction (prevention and mitigation), (iii) to strengthen policies and institutions of the Nation System for Disaster Management and Prevention, and (iv) to reduce the fiscal vulnerability of the state to natural events.

9. In April, 2012, President Juan Manuel Santos signed into law the National Disaster Risk Management Act. The enactment of Law 1523 of 2012 creates the National Disaster Risk Management System which provides Colombia with coordinated national policies on risk reduction and disaster management. The new Act replaces a system previously focused entirely on disaster response, that is, all emergency systems were mobilized in the event of a disaster. Risk management in Colombia will now be organized according to four key pillars: i) a new national framework led by the Disaster Risk Management Unit, as a subordinate to the Office of the President, ii) territorial planning which mandates local authorities to incorporate risk and hazard analysis in regional land-use plans to prevent further construction in areas unsuitable for human habitation, iii) funding from the newly established National Disaster Risk Management Fund, and iv) special procedures which allow for faster and more effective response to natural emergencies and natural disasters.

Relationship to CAS

10. Colombia has been working on a number of policy reforms and institutional strengthening processes related to disaster risk management. The World Bank has been supporting these in the context of three specific business lines: (i) generation of knowledge, (ii) provision of financial services, and (iii) convening and coordination of key institutions and stakeholders.
11. As in the past three national development plans, Colombia has included disaster risk management as a priority in the NDP 2010-2014. The Plan recognizes that disaster risk management is essential to consolidate the objectives of poverty reduction. It further requires sector polices to identify hazards and analyze vulnerability and risk levels, and to devise appropriate risk mitigation strategies. The National Plan establishes that the National Planning Department (DNP-Departamento Nacional de Planeación), in coordination with the UNGRD and the Ministries of Finance and Public Credit (MHCP-Ministerio de Hacienda y Crédito Público) and the MVCT, will design the second phase of the Program for the Reduction of National Vulnerability to Disasters, in order to continue the process of strengthening disaster risk management processes in the country.

12. The disaster risk management framework of the proposed National Disaster Vulnerability Reduction Project Phase Two falls under the Sustainable Growth with Enhanced Climate Change Resilience theme of the Country Partnership Strategy for FY12-FY16 between Colombia and the World Bank. The key objective under this thematic area of engagement is to continue addressing the needs of Colombia’s highly urbanized population – through better land management, improved services, and governance – while maintaining Colombia’s position as an international leader in environmental management. The proposed operation would also directly contribute to two outcomes sought by CPS, namely the strengthened technical capacity for disaster risk management at national and regional levels and the National Policy for Disaster Risk Management formulated.

II. Proposed Development Objective(s)

Proposed Development Objective(s) (From PCN)

13. The objective is to further strengthen Colombia's disaster risk management framework through: (a) the application of disaster risk analysis and management in policy making at the sectoral and territorial levels, and (b) strengthening of risk reduction at subnational levels.

Key Results (From PCN)

14. Key results achieved through the implementation of the proposed operation will include the consolidation of technical capacities across key national agencies and ministries, such as MVCT and MADS, for disaster risk management with specific emphasis on strengthening the institutional capacity of the National Unit for Disaster Risk Management (UNGRD) to coordinate, monitor, and evaluate an integrated disaster risk reduction program. Secondary key results will include supporting the streamlining of disaster risk reduction at sector and subnational levels through the inclusion of a number of newly selected agencies, ministries and urban conglomerations that are not currently participating in the APL1 or APL2.

III. Preliminary Description

Concept Description

A. Concept

15. The project concept is founded on the acknowledged need to design a project which promotes a more integrated approach to disaster risk management in Colombia, and which seeks to promote institutional and sectoral coordination with the objective of strengthening of the newly established National System for Disaster Risk Management, passed into law on April 24, 2012 (see paragraph 9 above). The preliminary components and activities were identified based on the overall conclusions, recommendations and analytical approach of the Colombia Country Disaster Risk
Management Analysis (CCDRMA – P129542). The CCDRMA is a first of its kind national level analysis completed by the Bank, and in coordination with Government of Colombia through the National Planning Department (DNP) and the National Unit for Disaster Risk Management (UNGRD), which comprehensively evaluates disaster risk management at the country level.

16. Three different levels of analysis were included in the CCDRMA; of national government entities, of the Regional Autonomous Environmental Corporations (CARs), and of sub-national case studies. The process involved the Ministries of: Finance and Public Credit, Transport, Energy, Agriculture, Education, Environment and Sustainable Development, Social Protection; and Housing, City and Territory. Additionally, analysis was carried out in partnerships with the Colombian Federation of Municipalities, the Autonomous Regional Corporations Association, the Colombian Society of Farmers, the Colombian Chamber of Construction (Camacol), and the Colombian Chamber of Infrastructure, with the participation through surveys of representatives from 173 municipalities, 12 departmental governments, 23 CARs, 17 national entities, and 1,150 community persons in eight cities.

B. Description

17. During an inter-institutional workshop (March 5-9, 2012) which was attended by 17 agencies and ministries as part of project identification, a project framework was agreed upon and includes four mutually reinforcing components of disaster risk management (see Figure 1): (i) understanding disaster risk, (ii) disaster risk reduction (planning and territorial development), (iii) disaster risk management, and (iv) governance which was identified as a central crosscutting component.

Figure 1: Proposed Components of Project Framework

18. All preliminary activities defined below are in line with the National Development Plan 2010-2014, however, the subcomponents and related activities represent a long-list that must be further refined through further discussion with the Government of Colombia. It is important to note that the definition of the final set of components and activities can be politically sensitive given the high degree of interest in the field of disaster risk management from Colombia’s national, sectoral and subnational entities.

19. Component A: Governance (~US$5 million). The objective of this component is to consolidate disaster risk management as a priority in public policies, to strengthen institutional and financial capacity in order to promote and guide investments in disaster risk management. This component will develop activities for:

Subcomponent Description
A1. Policy formulation Consolidation of national policies on disaster risk management including strategies for flood and landslide management, settlements in high-risk areas, risk financing, safe reconstruction.
A2. Institutional capacity strengthening Support the institutionalization of disaster risk management as defined in Law 1523 through the formulation and strengthening of: i) national commissions, ii) sectoral offices, iii) regional/municipal committees and offices.
A3. Sectoral DRM policies and plans  Formulation and consolidation of DRM policies and plans, definition of M&E/Impact Evaluation framework in priority sectors (e.g. agriculture, transport, water, education, health).


20. Component B: Understanding risk (~US$45 million). The objective of this component is to strengthen risk assessment and monitoring and to promote greater awareness that supports decision making for risk reduction and disaster management. This component will develop activities for:

Subcomponent  Description

B2. Risk mapping  Strengthening risk mapping through: i) formulation of technical guidelines for construction of risk scenarios, ii) development of municipal/urban risk and hazard maps, iii) implementation of the national inventory of settlements in high-risk areas, and iv) data collection in priority sectors for exposure, vulnerability and risk.

B3. Strengthening of information management  Improve quality and applicability of data management systems and spatial data infrastructure through: i) the definition of standards, ii) collection of metadata, iii) strengthening of interoperability of distinct institutional systems and iv) procurement of required software and hardware.

B4. Strengthening DRM awareness  Design and implementation of communication strategies, evaluation of risk perception, incorporation of DRM in environmental education and in schools curricula.

21. Component C: Risk Reduction (~US$47 million). The objective of this component is to decrease conditions of existing and future risk through specific interventions. This component will develop activities for:

Subcomponent  Description
C1: Technical assistance in land use planning and zoning  Support municipalities and environmental corporations for the inclusion of hazard and risk assessment in watershed management and urban planning and land use controls.

C2: Co-financing of projects for disaster risk management and climate change adaptation activities  Definition of incentives and monitoring frameworks that support results based financing for implementation of municipal DRM plans. Retrofitting, adaptive and mitigation works for priority infrastructure.

C3: Incorporation of risk assessment in public investments  Inclusion of risk assessment in formulation of public projects:
  i) formulation of sectoral guidelines for inclusion of risk analysis within the project cycle, ii) staff training.

22. Component D: Disaster Management (~US$3 million). Given that the construction of risk is based on the historic accumulation of failed development practices and that despite efforts for its reduction a degree of residual risk remains, it is necessary that Colombia strengthen its ability to react to the occurrence of a disaster through a phased approach to response, rehabilitation and reconstruction. This component will develop activities for:
Subcomponent Description
D1: Damage and loss reporting system  Formulation of methodologies for damage and loss evaluation and reporting system (general, sectoral), protocols for data collection.
D2: Design and implementation of emergency and recovery plans  Definition of protocols, emergency and contingency plans, guidelines for definition of Specific Action Plans for Recovery.

IV. Safeguard Policies that might apply

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