



SUSTAINABLE DEVELOPMENT UNIT ■ LATIN AMERICA AND THE CARIBBEAN

Disaster Risk Management in Latin America and the Caribbean Region: GFDRR Country Notes

Colombia



THE WORLD BANK



GFDRR

Global Facility for Disaster Reduction and Recovery



**COUNTRIES AT HIGH
ECONOMIC RISK FROM
MULTIPLE HAZARDS**
(Top 33 Based on GDP
with 3 or more hazards)^a

1. Taiwan, China
3. Jamaica
4. El Salvador
5. Guatemala
7. Japan
8. Costa Rica

10. COLOMBIA

12. Chile
14. Turkey
15. Barbados
18. Ecuador
19. Venezuela
20. Peru
24. Honduras
27. Mexico

^a Dilley et al. (2005). Table 7.2.

Colombia has the 10th highest economic risk to three or more hazards in the world, according to the Natural Disaster Hotspot study by the World Bank.

COLOMBIA

Natural Disasters from 1980 - 2008^b

Affected People

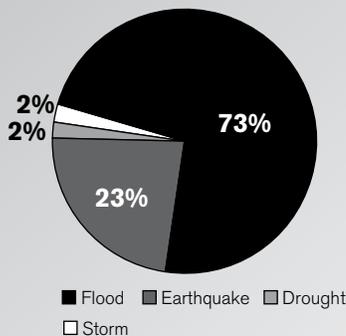
Disaster	Date	Affected (Number of People)
Earthquake*	1999	1,205,933
Flood	2008	1,200,091
Flood	2007	1,162,135
Flood	2005	474,607
Flood	2007	443,173
Flood	2004	345,386
Flood	1986	250,000
Flood	2006	221,465
Flood	2004	186,096
Flood	1996	180,000

Economic Damages

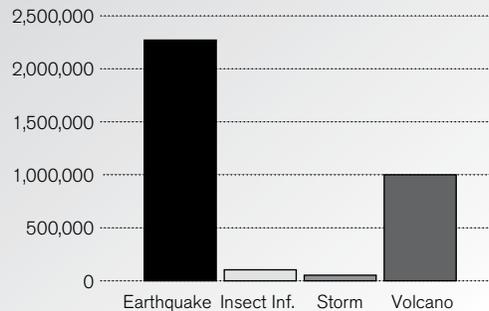
Disaster	Date	Cost (US\$ x 1,000)
Earthquake*	1999	1,857,366
Volcano	1985	1,000,000
Earthquake*	1983	410,900
Insect Inf.	1995	104,000
Storm	1988	50,000
Flood	2005	10,000
Flood	1981	5,000
Flood	1997	3,000
Storm	1986	2,500
Earthquake*	1994	2,400

Statistics by Disaster Type^b

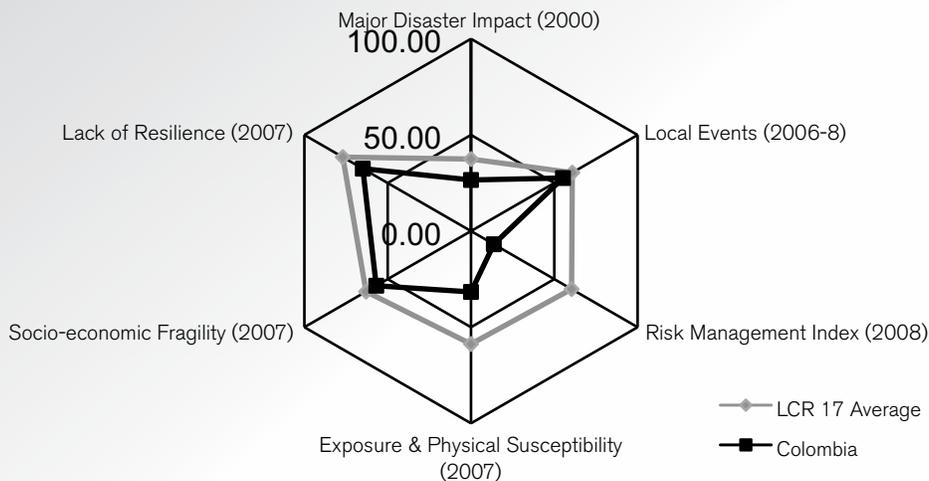
Population Affected by Disaster Type



Economic Damages / Disaster Type (1000s US\$)



Relative Vulnerability and Risk Indicators^c



^b UN (2009). <http://www.preventionweb.net/english/countries/statistics/?cid=37>. Source data from EM-DAT. Data displayed does not imply national endorsement.

^c Relative Vulnerability and risk Indicators are adapted from IADB-IDEA-ERN (2009). Values are normalized on scale of 0 – 100 and presented against the average for 17 LCR countries. Major disaster Impact taken from disaster deficit Index: the ratio of economic losses which a country could suffer during a Maximum Considered event and its economic resilience. Local events taken from Local disaster Index: the propensity of a country to experience recurrent, small-scale disasters and their cumulative impact on local development. risk Management Index is presented as the negative (i.e. 0 = optimal, 100 = incipient) of IADB's risk Management Index: measures a country's risk management capability in (i) risk identification, (ii) risk reduction, (iii) disaster management, and (iv) financial protection. resilience, Fragility and exposure are taken from the component indices of Prevalent Vulnerability Index. Date for local event data depends on information available for each country. Data, and the respective LCR 17 average, from 2000 is used for Dominican Republic, El Salvador, Guatemala, Jamaica and Nicaragua. Data, and the respective LCR 17 average, from 2006-08 is used for Bolivia, Colombia, Costa Rica, Ecuador, Panama and Peru. All LCR 17 averages are calculated based on available data.

DISASTER RISK PROFILE

Colombia has the 10th highest economic risk to three or more hazards in the world, according to the Natural Disaster Hotspot study by the World Bank. 84.7% of Colombia's population and 86.6% of its assets are located in areas exposed to two or more natural hazards.² The exposure is to both low-frequency/high-impact events such as earthquakes, volcanic eruption, and an occasional Atlantic hurricane, and to high-frequency but lower-impact events, such as floods and landslides. Climate change is already thought to exacerbate flooding and landslides in large parts of the country.

Geological Hazards

Most of Colombia, including all major urban areas, is located in zones of high or very high seismic activity. Colombia is situated on the confluence of three tectonic plates—the Nazca Plate, the Caribbean Plate, and the South American plate—and is traversed by various geological fault lines: the Romeral fault line, Cauca and Magdalena, and Palestina and Frontal de la Cordillera Oriental.³

There are six very active volcanoes in Colombia distributed along the central mountain range of the country. The six active volcanoes are: Nevado de Ruiz, Galeras, Dona Juana, Purace, Tolima, and Huila. Galera and Huila have had eruptions in the last five years causing severe damages and forcing significant evacuations.

Floods and Landslides

Large parts of Colombia's territory are susceptible to flooding, especially in the lower basins and valleys of the principal rivers: the Magdalena, Cauca, Sinnu, Atrato, and Putumayo. These regions are susceptible to flooding, as demonstrated by the area's topography and previous events that have occurred.

Landslides are the most frequently occurring disasters in the country. These are most frequently attributed to hydrological phenomena. The main causes stem from the softening of the ground from heavy rains and the flooding of bodies of water. The Natural Disaster Hotspot study by the World Bank⁴ indicates that Colombia has the highest landslide risk in the South American region, in terms of the number of fatalities per year per square kilometer.

Determinants of Vulnerability to Adverse Natural Events in Colombia

Rapidly increasing urban population has concentrated exposure to adverse natural events. As is the case in most Latin American countries, Colombia has seen a large increase in its urban population in the last fifty years. From 1950 to 2005, the percentage of Colombia's population living in urban areas increased from 39% to 73%⁵, and it is projected that by 2020, 80% of the population, or approximately 43 million people, will live in cities. This trend will bring with it important economic, social, and environmental challenges.⁶ In Colombia, the seven most important cities house 40% of the country's households and 60%

² Dilley et al. (2005). Table 7.2.

³ IADB-IDEA (2004).

⁴ Dilley et al. (2005).

⁵ Departamento Administrativo Nacional de Estadística (2005).

⁶ Departamento Nacional de Planeación (2006).

of total household income.⁷ The biggest city is by far Bogotá, accounting for 18% of households and 30% of the nation's household income generation.

Unplanned urban growth has disproportionately increased Colombia's vulnerability to adverse natural events. Most Colombian cities have followed an unplanned growth pattern. Some of the most important challenges in urban areas include: the predominance of unplanned expansions, a sharp increase in informal settlements, lack of adequate construction practices, environmental degradation, poor transport infrastructure, and a lack of adequate public spaces.

Informal settlements are a physical and spatial manifestation of poverty and inequality in cities. According to the latest census conducted in 2005, in four of Colombia's main cities, 18% of the residential area corresponds to informal settlements. These areas usually suffer from a lack of basic and social services and from prevalent unemployment. Currently close to 1.3 million homes in the country are in this situation (affecting 16% of the total urban families in Colombia). Of these homes, 63% suffer from poor construction quality, and 20% are located in high-risk areas. It has been estimated that 17% of homes are in such inadequate quality or high risk that it is not possible to retrofit them.

Colombia has made substantial progress through important urban reforms and comprehensive legislation on territorial planning,⁸ but implementation of these laws has been weak. For example, by 2005, eight years after the Territorial Planning Law # 388 passed in 1997, 97% of all the municipalities in the country and every major city with more than 100,000 inhabitants had adopted a Territorial Organization Plan (POT in Spanish). The quality of the POTs varies substantially—there are a few very high-quality plans, but most are

weak. Only a few of these plans have implemented the management and financial tools made available by the legislation. For most, the relation between the POTs and the Municipal Development Plans is not very clear. The Government of Colombia is working to change the perception of the POTs so that they are understood as a valuable tool for long-term planning and not just another document to comply with.

DISASTER RISK MANAGEMENT FRAMEWORK

Colombia is widely considered a leader in instituting a policy and legal framework that enables a comprehensive, multi-sectoral approach to disaster risk management. Colombia has built a National System for Disaster Management and Prevention, articulated around a comprehensive National Disaster Prevention and Attention Plan. Since the early 2000s, Colombia has decentralized disaster risk management responsibilities and made disaster risk management a national development priority.

Under the presidency of Álvaro Uribe, the Government of Colombia has integrated disaster risk management into its development plans. Chapter 5 of the National Development Plan 2006-2010 presents and describes the areas of actions for disaster risk management: (i) to develop policies and strengthen institutions, (ii) to identify and monitor risk and to disseminate its knowledge, (iii) to reduce and prevent risk, and (iv) to reduce fiscal vulnerability using risk transfer instruments. These efforts need to continue to be supported and enhanced to ensure long-term, effective disaster risk management in Colombia.

⁷ Including Bogotá, Medellín, Cali, Barranquilla, Cartagena, Bucaramanga, and Pereira.

⁸ Law 9 on Urban Reform, 1989, and Law 388 on Territorial Development, 1997.

Investments in disaster risk management, including risk reduction, are done at three levels in Colombia involving the national government, departmental governments, and municipal governments. Significant investments are also carried out by the agencies dedicated to infrastructure.

For both hydrometeorological and geological hazards, Colombia is probably the most densely monitored country in Latin America.

At the same time Colombian experts and their graduate-level trainees in disaster risk management have played an important role in developing a knowledge base and a political space for disaster prevention. The country is a leader in such risk-reduction approaches and measures as the introduction of building codes and enforcement, municipal programs, and the integration of science and technology with public policy making.

In spite of great progress, the task remains to address existing disaster risk through corrective actions, while simultaneously improving planning processes to avoid unreasonable accumulation of new vulnerability. For a country with more than 600 declared natural disasters every year, this is a daunting task that will require continued and improved attention by the Colombian Government.

For both hydrometeorological and geological hazards, Colombia is probably the most densely monitored country in Latin America.

ACTIVITIES UNDER THE HYOGO FRAMEWORK FOR ACTION

Hyogo Framework for Action (HFA) Priority #1: Policy, institutional capacity and consensus building for disaster risk management

Colombia has built a National System for Disaster Management and Prevention, articulated around a National Disaster Prevention and Attention Plan. The system (SNPAD in Spanish) has its mandate in Law 46 from 1988 and includes both public and private agencies with responsibilities for risk mitigation and prevention as well as emergency response and rehabilitation. The system is coordinated by the Directorate of Disaster Prevention and Management presided over by the Minister of Government. Furthermore, the system has an operative arm coordinated by a National Operative Committee and a technical/scientific arm coordinated by the National Technical Committee. Vertically, the system has regional committees presided over by the provincial governors and local committees presided by mayors. SNPAD is responsible for (a) the prevention and mitigation of risk, (b) attention to emergencies, and (c) the rehabilitation of territories affected by disasters.

Colombia, through its National System for Disaster Management and Prevention, has been a leader in instituting a policy and legal framework that enables a comprehensive, multi-sectoral approach to disaster risk management. The role of Colombian experts and graduate-level trainees in disaster risk management in the country has been important in this shift and in the effectiveness of this consolidated framework.⁹ The country is a leader in such risk reduction approaches

⁹ See resources under La Red at <http://www.desinventar.org>.

and measures as the introduction of building codes and enforcement, municipal programs, and the integration of science and technology with public policy making.

Since the early 2000s, Colombia has decentralized disaster risk management responsibilities and made disaster risk management a national development priority.

In 2001, recognizing the high cost that disasters extract from local authorities and the need to encourage investment in disaster mitigation, the national government created an investment category¹⁰ for disaster prevention and response in the list of investments permitted under the national revenue-sharing system. According to Law 715/2001, Articles 76.5, 76.9, and 79, municipalities can now elect to spend budgetary transfers on disaster prevention and response. At the close of the Pastrana administration, a National Policy Statement¹¹ (CONPES, 3146 of December, 2001) followed up on the earlier decree, raising disaster vulnerability reduction to the level of national development priority for the first time, and stipulating its inclusion in the National Development Plan.

One institutional challenge for Colombia is to resist pressures to fall back into an emergency focus. To resist these pressures implies the need to upgrade, integrate, and further consolidate the National System for Disaster Management and Prevention. Though good work is being done in most institutions in the system, technical capacity is a limiting factor in several institutions, particularly at local levels, and institutional coordination remains a challenge. The World Bank, through a disaster vulnerability reduction investment loan, is supporting improved inter-institutional coordination and strengthening capacity building for risk management at local levels.

Despite great progress, the task remains to address existing disaster risk through corrective actions, while simultaneously improving planning processes to avoid unreasonable accumulation of new vulnerability. This remains a difficult challenge and will require continued and improved attention by the Colombian Government.

HFA Priority #2: Disaster risk assessment and monitoring

Colombia has strengthened information collection and analytic capacity for early warning and risk mapping related to hydrological, seismic and volcano events. With national budget and technical as well as financial support from the World Bank, the Colombian Institute for Geology and Mining (*Instituto Colombiano de Geología y Minería* – INGEOMINAS) and the Colombian Institute for Hydrology, Meteorology and Environment Studies (*Instituto de Hidrología, Meteorología y Estudios Ambientales de Colombia* – IDEAM) have purchased and installed equipment to update existing systems for monitoring catastrophic events. The three regional volcanic observatories and the national earthquake monitoring network managed by INGEOMINAS are fully operational and provide real-time information and early warnings also available via the Internet. IDEAM has recently modernized the hydrometeorological monitoring network, installing close to 500 new automatic stations, in addition to the 2,500 existing conventional stations. This likely positions Colombia as the most densely monitored country in Latin America. The new stations provide real-time information on river levels and rainfall through satellite communication used with daily satellite imagery to provide early warnings on flooding, forest fires land slides. Over the next three years, both

¹⁰ Indexing numbers in parentheses refer to the categories assigned in the DNP publication, “*Sistema General de Participaciones— Informe de Ejecución Presupuestal Municipal Vigencia 2003.*”

¹¹ *Consejo Nacional de Política Económica y Social* (National Council of Social and Economic Policy, CONPES) are policy statements issued by the *Departamento Nacional de Planeación* (National Planning Department, DNP).

agencies will continue to update and expand their monitoring capacity seeking to enhance coverage by an additional 5-10 percent.

Colombia has improved and organized information and information flows for disaster vulnerability, risk evaluation, and risk reduction programs. At a national scale, risk maps for the main river basins and for Galeras volcano have been updated. At the local level, earthquake risk maps have been produced for more than 15 cities (including Bogotá, Medellín, Cali, and Manizales). Urban landslide and flooding maps have been produced for Bogotá, Medellín, Manizales and Bucaramanga. This information is publicly available and has been used for prioritizing investment in risk reduction, such as relocating communities and retrofitting hospitals in Bogota, conducting land planning and urban slope stabilization in Manizales, and protecting urban streams in Medellín.

Colombia has worked to build a culture of risk reduction through integration of disaster risk management in education and research. DGR has worked with Colciencia and the National System of Science and Technology (*Sistema Nacional de Ciencia y Tecnología*, SNCyT) to develop a strategy to strengthen science and technology for disaster risk management. The strategy was adopted in 2002. DGR has also worked with the Ministry of Education to include risk management into environmental education.

The National Planning Department (DNP in Spanish) is with support from the World Bank and financing from GFDRR working to develop decision making support tools based on Probabilistic Risk Assessment platforms¹². The platform will help establish standards for sharing data and a common language for understanding risk. Initially four tools will be developed for volcano, tsunami, flood and earthquake risk. The transparent nature of the models and open architecture of the platform ensure

that future users can understand, adjust, and continue to evolve their tools as their needs change.

HFA Priority #3: Use of knowledge, innovation, and education to build a culture of safety and resilience at all levels

One of the reasons for Colombia's relative success in moving towards a proactive disaster risk management institutional environment is the existence of a human capital base with the appropriate technical training. There are at least 10 higher-education institutions in Colombia that offer post-graduate training and specialization in risk management. At primary and secondary school levels, the curricula include concepts and good practices for risk management. The legal basis for the inclusion of disaster risk management in school curricula is the 1991 Constitution. The school curricula have gradually been improved, in particular since the promulgation of the National Policy for Environmental Education (2002). The Government of Colombia has developed and implemented various tools and strategies to train teachers and community leaders to incorporate disaster risk management into the school curriculum.

HFA Priority #4: Reduction of the underlying risk factors (reduction of exposure and vulnerability and increase of resilience)

Corrective action to address existing disaster risk is one of Colombia's main disaster risk challenges. Investments in risk reduction can involve both structural mitigation works, such as seismic retrofitting, and nonstructural investments, such as relocating people from high-risk areas. Most often these decisions should be made at a

¹² <http://ecapra.org>.

decentralized level, as close as possible to the assets and people at risk. Given that the legal responsibility for disaster risk reduction has been placed with the municipalities and the relatively high quality of its risk identification information, the basic conditions then exist for municipalities to make significant and efficient investments in disaster risk reduction. With such a high exposure to natural hazards, the political challenge is to define the acceptable level of risk and to finance the mitigation of the unacceptable risk.

Investments in disaster risk management, including risk reduction, are done at three levels in Colombia involving the national government, departmental governments, and municipal governments. Compared to the national government, municipalities invest a larger share of their total disaster risk management budgets in preventive work. The highest volume of investments in risk reduction is also done by municipalities through their regular budgets.

In addition to investments by the three levels of core public administration, agencies dedicated to infrastructure also invest significantly in risk reduction. The Colombian National Institute for Roads (*Instituto Nacional de Vías* – INVIAS) is responsible for risk mitigation work related to roads, ports, and riverine infrastructure. With financing from the World Bank, INVIAS invested more than US\$30 million in risk mitigation works in 2007 and US\$35 million in 2008. The Colombian Oil Company (ECOPETROL) recently finalized a large program retrofitting all its critical installations to become seismic-resistant.¹³

Most of the investments in risk reduction in Colombia at the municipal level are done by a handful of the larger municipal entities. This is a logical consequence of the larger municipalities bearing most of the natural hazard exposure and possessing the capacity to address the issue. Due

to the combination of legal responsibility, capacity and needs to invest in disaster risk reduction, the larger municipalities in Colombia are currently a good entry point for promoting risk reduction investments. Both the Bogotá River Management Project and the proposed Barranquilla Flood Mitigation Projects. GFDRR financing is playing an important role for integration of disaster risk reduction in the Barranquilla project and thereby potentially will leverage significant amounts of additional resources for reducing disaster risk.

Much work still needs to be done in terms of building awareness and capacities among local governments in smaller municipalities.

One indicator of the status is that only 20% of municipalities reporting floods in the period from 2004 to 2007 have invested in risk reduction measures for flood protection in the same period. This is likely to be linked to a generally weak capacity for territorial planning. Although 97% of all municipalities in the country have adopted a Territorial Organization Plan (POT), the quality of the POTs varies substantially—there are a few very high-quality plans, but most are weak. Only a few of these plans have implemented the management and financial tools made available by the legislation. For most, the relation between the POT and the Municipal Development Plans is not very clear. Both the Ministry of Environment, Housing and Territorial Development (MAVDT) and the National Directorate for Disaster Prevention and Management (DGR) have active programs in building capacity and awareness among municipalities for disaster risk reduction and in integrating risk reduction with the territorial and development planning processes which the Bank is supporting. These programs, supported by the World Bank through a loan with the National Government, will expand coverage to reach up to 40% of municipalities in the country over the next three years and thereby form the basis for

¹³ In accordance with the existing Colombian building code, all new construction must be seismic-resistant, and existing key public buildings must be retrofitted or rebuilt to be earthquake-resistant (Law 400 of 1997).

more widespread and more effective investments in risk reduction at the municipal level. In addition, the DNP (National Planning Department) is monitoring municipal investments in risk reduction to track if the capacity building efforts have any impact on municipal decision-making with regards to risk reduction.

HFA Priority #5: Disaster preparedness, recovery and reconstruction at national, regional, and local levels

In Colombia, the disaster response structure has four levels of organization. Response to a given natural event starts with the local level determining if the event is of a magnitude that the local response committee can manage or if help needs to be requested at the municipal, departmental or national level.

Since 2006, the National Directorate of Disaster Prevention and Response has been providing training at local, municipal, and departmental levels through the Local, Municipal and Departmental Committees for Disaster Prevention and Response. A new plan for training municipalities was approved in 2007 and is under implementation with support of the APL 1. In 2008, 60 municipalities were trained and another 150 in 2009.

To test existing capacity, simulations and drills have been carried out in major cities. The latest and largest exercise was an earthquake simulation in Bogotá supported by USAID/OFDA and UNDP in October 2009. First responders, national and district authorities, and the general population all participated in the exercise as part of the mass prevention campaign “with feet on the ground” (www.conlospiesenlatierra.gov.co). Bogotá has developed advanced disaster recovery plans based on

sophisticated and detailed risk assessment models.

The response capacity of all levels in the system activated at the same time has only been tested once since its creation. This was in 1999 after the Armenia earthquake, which caused thousands of deaths and a high level of structural damage. Immediately after the earthquake, the Government of Colombia established the Reconstruction Fund for the Coffee Region (FOREC). FOREC reported to the Office of the President with the National Planning Department (DNP) acting as secretariat. FOREC was to finance, execute and coordinate the economic, social and environmental reconstruction of the disaster-affected region. Judging from the response and reconstruction after the Armenia earthquake, Colombia has a well functioning response system.

With regard to disaster response, the main challenge for the Government of Colombia is to finance and rapidly initiate the recovery phase in the aftermath of a natural disaster. In June 2009 The World Bank and Colombia signed a Development Policy Loan (DPL) with a Catastrophe Deferred Draw Down Option (CAT DDO) which has been designed to provide a financing bridge—after a disaster of a scale that cannot be funded with the internal reserve—to other sources of relief as they become available. As part of a catastrophe risk-financing strategy, this instrument will provide the Government with bridge financing in response to adverse natural events generating losses beyond the capacity of the annual budget allocation to the Risk Management Directorate (DGR) for responding to disasters.

CONPES¹⁴ 3146 of 1998 raised the issue of the fiscal vulnerability of the state to natural disasters and identified concerns for the financing of reconstruction should a major

¹⁴ A CONPES is a cross-sector socio-economic policy document.

catastrophic event occur. Cardona et al. (2005) estimate that the Government of Colombia would face a long-term resource gap, that is, a shortfall of funding available compared to funding needs, if confronted with a disaster with a return period of 100 years.¹⁵

The Government of Colombia is working on a series of policy documents related to the retention and transfer of the residual risk in Colombia. In Colombia, all public buildings are required by law to be insured (Law No. 42 of 1993). The Ministry of Finance (MHCP) is currently investigating options to design a cost-effective insurance program for public assets and a

catastrophe insurance program for private dwellings. The MHCP has conducted a series of technical studies on earthquake risk assessment to evaluate the physical damage caused by a major earthquake on public assets. This complements other studies carried out by the District of Bogotá on the impact of earthquakes on public buildings and private dwellings. These studies, based on state-of-the-art catastrophe risk-modeling techniques, provide the Government of Colombia with very detailed information on earthquake risk assessment.¹⁶

KEY DONOR ENGAGEMENTS

Existing Projects with Donors and International Financial Institutions	Funding Agency / International Partners	Allocated Budget and Period (US\$)	HFA Activity Area(s)
Colombia Disaster Vulnerability Reduction Project	World Bank	110 million 2005-2011	1, 2, 3, 4, 5
Bogota Disaster Vulnerability Reduction Project	World Bank	80 million 2006-2011	1, 2, 3, 4, 5
Colombia Disaster Risk Management Development Policy Loan	World Bank	150 million 2009-2012	1, 2, 3, 4, 5
Colombia Probabilistic Risk Assessment Platform	GFDRR/World Bank	500,000 2010-2011	1,2
Technical assistance for the preparation of Barranquilla Flood Mitigation Project	GFDRR/World Bank	150,000 2010-2011	4
Project preparation of Barranquilla Flood Mitigation Project	Spanish Trust Fund/World Bank	725,000 2010-2011	4
Support for DesInventar online disaster database creation of National online Disaster Prevention and Management Information System (SIAPAD)	European Commission through the PREDECAN project	140,000 ¹⁷ 2003-2009	2

¹⁵ See Annex 9, "Potential Economic Losses of Disasters in Colombia."

¹⁶ These studies include ERN (2005a), ERN (2005b), and CEDERI (2005).

¹⁷ Approximate amount to support Colombia directly, although broader program has larger resource allocations.



Cartagena

GLOBAL FACILITY FOR DISASTER REDUCTION AND RECOVERY (GFDRR): ACTION PLAN

Although there have been significant advances in disaster risk management, remaining challenges have been identified based on Colombia's risk profile and indicative program. Strategic actions are needed in the following areas to enhance disaster risk management in Colombia: (i) increase awareness and resilience at local levels, (ii) mainstream disaster risk management (DRM) in priority sectors, and (iii) institutionalize disaster risk financing.

In spite of the important advances in data gathering and knowledge production and some advances in awareness raising, Colombia still has significant challenges. The main challenge lies in knowledge creation among decision-makers and

citizens at local levels. This is critical for improving urban planning processes that will avoid development patterns that exacerbate vulnerability. Successful implementation of the probabilistic risk assessment platform will help address this challenge. GFDRR support for the platform is essential for its success.

Due to the combination of legal responsibility, capacity and needs to invest in disaster risk reduction, the larger municipalities in Colombia are currently a good entry point for promoting risk reduction investments. GFDRR could continue to play an important role by providing grant funds for integration of disaster risk reduction in urban development projects and thereby leverage significant amounts of additional resources for reducing disaster risk.

While progress has been made to institutionalize disaster risk management in general, work remains for Colombia to institutionalize its disaster risk financing. A

main challenge relates to the risk to private housing. Legally this is private risk, but in the event of a major disaster, the Government is likely to be called upon as the insurer of last resort. A solution is being sought that involves collaboration between the national government and key municipalities, as well as public-private partnerships involving the national and international insurance markets. GFDRR resources would support work among the Ministry of Finance,

the Secretary of Finance of the District of Bogotá, as well as the insurance association, in an attempt to launch an insurance scheme to protect both private and public assets from natural disasters.

The following activities have been identified in consultation with local authorities and reflect HFA priority action areas. These actions support Colombia's disaster risk management program.

Indicative Program for GFDRR Funding <i>(Projects and engagement areas being considered for GFDRR funding)</i>	Implementing Agency / International Partners	Indicative Budget and Period (US\$)	HFA Activity Area(s)¹⁸
Strengthening the policy framework, tools and institutional coordination of the national system for disaster risk management	National Planning Department, Directorate of Disaster Prevention and Management	800,000 2011-2012	1
Implementation framework for Climate Change Adaptation activities focused on disaster risk management	National Planning Department	500,000 2011-2012	1, 2, 3
Development of a Risk Assessment Platform for Colombia (2nd phase)	National Planning Department	500,000 2011-2012	2, 3
Municipal Disaster Vulnerability Reduction Project	Municipality to be determined	1.2 million 2011-2012	4
Insurance of public assets and risk financing	Municipality of Bogotá	200,000 2011	5
Initial Budget Proposal:		US\$4.834 million	

In addition to the above-mentioned activities, opportunities are under consideration to maximize South-South cooperation in the Andean countries with key participation of Colombia. Continued

dialogue with the Government of Colombia will lead to the prioritization of future initiatives to ensure adequate mainstreaming and implementation of disaster risk management measures.

¹⁸ HFA Priority Action Areas: 1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation; 2. Identify, assess, and monitor disaster risks—and enhance early warning; 3. Use knowledge, innovation, and education to build a culture of safety and resilience at all levels; 4. Reduce the underlying risk factors; 5. Strengthen disaster preparedness for effective response at all levels.



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Special thanks and appreciation are extended to the partners who support GFDRR's work to protect livelihood and improve lives: ACP Secretariat, Australia, Bangladesh, Belgium, Brazil, Canada, Colombia, Denmark, European Commission, Finland, France, Germany, Haiti, India, International Federation of Red Cross and Red Crescent Societies, Ireland, Italy, Japan, Luxembourg, Malawi, Mexico, the Netherlands, New Zealand, Norway, Saudi Arabia, Senegal, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, United Nations Development Programme, United States, UN International Strategy for Disaster Reduction, Vietnam, the World Bank, and Yemen.