

INTEGRATED SAFEGUARDS DATASHEET APPRAISAL STAGE

I. Basic Information

Date prepared/updated: 09/14/2005

Report No.: AC1737

1. Basic Project Data

Country: Colombia	Project ID: P085727
Project Name: Disaster Vulnerability Reduction Phase 2 APL	
Task Team Leader: Francis Ghesquiere	
Estimated Appraisal Date: July 1, 2005	Estimated Board Date: November 29, 2005
Managing Unit: LCSFU	Lending Instrument: Adaptable Program Loan
Sector: Flood protection (34%);Non-compulsory pensions, insurance and contractual savings (33%);Sub-national government administration (33%)	
Theme: Natural disaster management (P);Other urban development (S);Other economic management (S)	
IBRD Amount (US\$m.):	80.00
IDA Amount (US\$m.):	0.00
GEF Amount (US\$m.):	0.00
PCF Amount (US\$m.):	0.00
Other financing amounts by source:	
<u>BORROWER</u>	120.00
	120.00
Environmental Category: B - Partial Assessment	
Simplified Processing	Simple <input type="checkbox"/> Repeater <input type="checkbox"/>
Is this project processed under OP 8.50 (Emergency Recovery)	Yes <input type="checkbox"/> No <input type="checkbox"/>

2. Project Objectives

This Bogotá; DVRP is proposed as the second phase of a three-phased Adaptable Program Loan (APL). The first phase APL, approved by the Board on May 10, 2005, should significantly strengthen the national capability for disaster risk management planning and should also establish a viable model to support comprehensive disaster risk reduction in the more than 1,000 municipalities, part of the Colombian territory.

The purpose of this Phase 2 project under the APL is to reduce the vulnerability of the Capital District of Bogotá; to adverse natural events, by strengthening its capacity to manage disaster risks, and by reducing vulnerability in key sectors.

As such, the project will contribute to the long-term program to save lives and reduce social, economic and financial losses resulting from adverse natural events, including earthquakes, floods and landslides. By program completion, physical and financial vulnerability to adverse natural events should be measurably reduced in Bogotá;. The number of families living in risk prone areas should be reduced. Risk management and emergency response capacity should be improved and the district government should be better capable of responding to a catastrophic event occurring in the city.

Following are the key indicators of the expected outcome: (compare with Annex)

- Increased number of key facilities retrofitted and resistant to major earthquakes;
- Reduced number of families living in risk prone area;
- Improved skills and technical capacity of relevant emergency response agencies;
- Increased risk awareness and improved response capacity to natural disaster among district agencies and general population;
- Improved financial resilience of the district of Bogotá.

3. Project Description

As with the other phases under the APL, this Bogotá DVR (APL2) addresses five lines of action outlined in Colombia's National Plan for Disaster Prevention and Management: (i) risk identification; (ii) risk reduction; (iii) institutional strengthening; (iv) risk prevention & awareness; and (v) financial coverage (more details are presented in Annex 4).

Component A: Risk Identification (Total US\$ 10.5 million, US\$ 0 million from IBRD)

The objective of this component is to enhance the capacity of the District of Bogotá to identify and monitor risks. The component will help the District to better target its investments and identify potential calamities before they occur.

Activities to be financed will include:

- Risk Identification: Studies for hazard identification (e.g. floods, geotechnical, and seismic risk), vulnerability assessment (e.g. assessment of substandard housing and public buildings) and risk management (e.g. probability of loss of life when vulnerability is not addressed) will be implemented by a variety of agencies, including FOPAE, DABS, CVP y SDS.
- Risk Monitoring: Studies for hazard mapping will be implemented by FOPAE to identify the equipment needed to provide information on earthquakes, floods and landslides.

Component B: Risk Reduction Works (Total US\$104.3 million, US\$ 78.6 million from IBRD)

The objective of this component is to complement existing efforts by the city government to reduce the risk of future damage to critical facilities and lifeline infrastructure, in order to save lives and ensure continued functioning of such facilities in the event of adverse natural or technological catastrophe. The component will also support the implementation of non-structural and functional mitigation measures in order to ensure continuity of service during and after emergencies.

Activities to be financed will include:

- Seismic Mitigation: Engineering designs and works for the retrofitting and construction of public buildings to meet the latest seismic standards as defined in Law 400, including hospitals (SDS), schools (SED), fire stations (Secretaría de Gobierno) and kindergartens/day care centers (DABS).
- Landslide Mitigation: Small mitigation works such as retaining walls -gabions, drainage, anchorages, and nets to protect the population from landslides, falling rocks, and mudslides. All these small works will be implemented by FOPAE

Component C: Institutional Strengthening (Total US\$ 7.5 million, US\$ 1 million from IBRD)

The objective of this component is to enhance the effectiveness and capacity of the District Administration to prepare for, respond to, and recover from significant emergencies. In this context, the component will also support the strengthening of the District's capacity to implement the project.

Activities to be financed will include:

- Project Administration (UPC): Consulting services, office equipment and supplies and operating expenses of the coordinating unit of the proposed project. The subcomponent will also finance the training of participating agencies staff in safeguard, fiduciary and technical aspects of the project.
- Capacity Building (Secretaría de Gobierno): Training for agencies of the District System for Prevention and Response to Emergencies aimed at enhancing their capacity to carry out their mandate in the area of disaster prevention, response and rehabilitation. The subcomponent will also include the retrofitting and re-equipment of two fire stations in the district.
- Environmental Management (DAMA): Implementation of an environmental management strategy aimed at strengthening compliance with the environmental requirement of public works in the district.

Component D: Risk Prevention and Awareness (Total US\$ 20.9 million, US\$ 0 million from IBRD)

The objective of this component is to increase awareness at all levels of society, and in particular, at community level in order to convey the importance of risk mitigation and disaster preparedness.

Activities to be financed will include:

- Risk Education (FOPAE & SED): The importance of risk mitigation and disaster preparedness will be introduced at various levels of the educational system. The component will support the development of emergency plans in over 1,000 educational institutions. It will also finance research programs on risk management, the design of curricula on disaster awareness and training of professionals in the education sector.

- Information Campaign (DPAE): Development and implementation of a multi-faceted public information campaign on disaster risk. The subcomponent will also finance the preparation of multimedia material, including the publishing of a one book and about one hundred audio-visual and radio announcements.
- Socio-envt. Action for Risk Reduction (DAMA): Dynamization of social networks linking over 40 organizations engaged in environmental activities to encourage and coordinate prevention activities in hazard prone area. The subcomponent will also finance the administration of protected land through community participation schemes.
- Integrated Resettlement: The subcomponent will support the resettlement of approximately 2,300 families living in high risk areas. This will include studies for the development of integrated strategies, with the concourse of the affected communities, to ensure that the previously occupied high-risk areas remain closed to future human settlement and interventions in these areas (CVP, DAMA, DPAD).

Component E: Financial Coverage for Risk Management (Total US\$ 0.5 million, US\$ 0.3 million from IBRD)

The main objective of this component is to develop a risk financing strategy for losses arising from natural disasters. It aims to provide the Municipality of BogotÁ DC with a financial strategy that guarantees the appropriation of the resources needed for disaster reconstruction or rehabilitation phase. This strategy will be based on the most advanced catastrophe risk modeling techniques (e.g., probabilistic earthquake risk model) and financial instruments (e.g., parametric insurance, contingent debt, catastrophe bonds). It also aims to facilitate the development of a private catastrophe insurance market, base on recent experience in Colombia.

The following are the primary short term objectives:

- Develop a probabilistic earthquake risk model to assess losses on public and private buildings;
 - Review and optimize the current portfolio of insured public assets that are under the direct responsibility of the Municipality of BogotÁ DC;
 - Strengthen the resilience of the District budget to ensure that liquidity is available in the aftermath of a catastrophic event;
- Promote the development of a private catastrophe insurance market.

4. Project Location and salient physical characteristics relevant to the safeguard analysis

The project will be circumscribed to the urban area of the District of BogotÁ. In the case of the retrofitting of buildings, these are hospitals and schools. Their spatial distribution covers the entire city. The selection of these buildings was conducted through very thorough analyses, which included detailed seismic stratification, preliminary structural assessment, and risk assessment. The government of BogotÁ has also conducted detailed structural retrofitting to those edifications assessed to present high collapse risk in case of a major earthquake.

At the same time, the resettlement program adds to an ongoing effort to reduce losses of life due to natural hazards. The people to be resettled have been selected as a function of the vulnerability assessments. Those at higher risk have been given priority. Families dwelling in non mitigable high risk areas will be moved to safer areas and will be provided with reposition houses and resettlement support according to Bank OP 4.12.

The presence of housing developments in slope instable areas has moved the government to launch a major campaign to attend to these needs through technical studies and well established prioritization criteria. In areas where infrastructure interventions have proven feasible and less expensive than resettlement, slope control works are preferred. The project will support the continuation of this program, through the construction of small civil works that have proven effective.

5. Environmental and Social Safeguards Specialists

Mr Alejandro M. Deeb (LCSEN)

Ms Elena Correa (LCSEO)

6. Safeguard Policies Triggered	Yes	No
Environmental Assessment (OP/BP 4.01)	X	
Natural Habitats (OP/BP 4.04)		X
Forests (OP/BP 4.36)		X
Pest Management (OP 4.09)		X
Cultural Property (OPN 11.03)	X	
Indigenous Peoples (OD 4.20)		X
Involuntary Resettlement (OP/BP 4.12)	X	
Safety of Dams (OP/BP 4.37)		X
Projects on International Waterways (OP/BP 7.50)		X
Projects in Disputed Areas (OP/BP 7.60)		X

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts: The project triggers three safeguard policies: Environmental assessment (OP/BP 4.01), Physical cultural property (OPN 11.03), and involuntary resettlement (OP/BP 4.12). Although Bogotá has had several operations with the Bank, its institutional capacity varies considerably with time and among institutions. Due diligence assessments have concluded that existing procedures, regulations, policies and institutional capacity is adequate to safeguard physical cultural property and to carry out resettlements to the Bank's satisfaction. The institutional capacity of DAMA, the District's environmental agency, to enforce environmental regulations is weak, and regulations have diminished environmental responsibilities to nearly all public works and most private construction initiatives.

Nonetheless, only minor and well understood environmental impacts are expected. The environmental impacts, associated with the proposed interventions, are not expected to be significant, nor irreversible.

The majority of the works to be developed under this project will be the retrofitting of existing buildings. It is expected that 25 hospitals, 104 schools, and 40 kindergartens will be reinforced to comply with the latest seismic resistant norms.

Under Component D, families living in non mitigable high risk areas will be resettled. Bogotá is implementing a Resettlement Program for families living in high risk areas and providing them safe housing solutions since 1990's. This program has had support from the past three administrations, has been in operation for the past 9 years, has developed resettlement guidelines based on the Bank safeguard policies and accumulated considerable experience (reincent years, resettlement programs have had targets of around 1000 families per year.) During the last three administrations resettlement activities have been included within the District's Development Plans and in budget appropriations.

Fund sources for these activities will come from counterpart commitments allocated by the District to this project. This activity will support the resettlement of 600 families during 2006 and around 1700 during 2007 and 2008 as additional District funds become available. These interventions trigger OP 4.12, the Resettlement Policy. An appropriate resettlement framework has been prepared and the Team Social Specialist has reviewed and cleared.

It should be mentioned that, within the retrofitting activities no potential involuntary resettlement was identified. However, the project has developed a resettlement framework in case these works affect third party property. If there is such a case, the resettlement will be minor.

Some buildings requiring retrofitting have been defined as cultural patrimony of the city. Interventions on protected buildings have been regulated for more than two decades in Bogotá. The regulations are in agreement with the principles of the Bank OPN 11. 03. The environmental audits will supervise compliance with regulations pertaining to cultural properties.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

All civil works are minor (slope stabilization) or are circumscribed to existing buildings. There is not expected to be any potential or significant negative environmental or social impacts under this project. It is foreseen that the overall impact will be positive.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Several tasks have been conducted to minimize the extent of the physical interventions. High priority buildings were identified as those that ought to serve the city in case of

unprecedented large earthquakes. The government of Bogotá undertook the retrofitting of these, mostly administrative government buildings, during the period 1996 to 2000. Better knowledge of hazard potential moved the city to expand its initial program to cover basic services, health and education. Public utilities undertook the retrofitting of its buildings directly, while health and education lagged behind in search for resources. This project specifically targets those sectors and it incorporates lessons learned from previous city interventions as well as from the first phase APL conducted at the national level. Each selected building was individually assessed, and analyses determined the course of action between demolition and reconstruction on one hand and structural retrofitting on the other hand.

A similar approach was taken in regard to land instability. Detailed geological and geotechnical analyses were undertaken to assess the best course of action between resettlement of the people in high risk prone areas, and slope stabilization through physical interventions. In all cases a general broad approach was taken, seeking to understand the nature and causes of the instability, defining hazard boundaries and buffer zones, as data was gathered to guide the decision making process. These analyses are the basis for the proposed interventions.

Two general approaches were considered to safeguard the environment. Based on the lessons learned from many previous operations, each intervention was to have its own environmental analysis, and construction "retrofitting- activities were to be supervised by an environmental professional to enforce compliance with the corresponding environmental management plan. A second option, finally selected, allocates all environmental responsibility to the contractors, who are provided with updated environmental guidelines. To ensure compliance DAMA will train environmental auditors, who will audit all interventions. The second strategy implies the need to: (i) strengthen DAMA's ability to monitor and utilize the data generated by the environmental audits; (ii) provide DAMA with the capability to assess the quality of the audits; (iii) train environmental auditors; and, (iv) update and complement environmental guidelines for construction within the city. All these activities have been proposed by DAMA as it seeks to strengthen its institutional capacity, reduced in recent years.

Regarding the resettlement of families living in high risk areas, is important to mention that only the families that are in no mitigable high risk areas are eligible to resettle. To this end DPAE, the Emergency and preparedness district's agency, is the agency that evaluates the possibility to mitigate the risk and if mitigation is not feasible then it is the responsibility of CVP to resettle these families.

Regarding the retrofitting of buildings and construction of new buildings, is expected that these activities will be carried out within the institutions property, and all the measures will be taken to avoid involuntary resettlement.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described. The governments of Colombia and the Municipality of Bogotá have extensive experience with the Bank Safeguard Policies. Bogota's latest projects, the Urban Services Projects and Urban Transport Project, have shown that municipal implementing agencies have the required environmental oversight capacity. Unfortunately DAMA, the municipal environmental agency, has lost most of its institutional capacity to enforce environmental regulations related to infrastructure and activities conducted by the government. Today DAMA is absent from the main decision making circles to strategically promote environmental sustainability.

DAMA and the government of Bogotá have requested support to strengthen this agency ability to enforce environmental regulations, while at the same time providing the city with a well supported financial strategy for DAMA. As already indicated the strengthening of DAMA includes: (i) complementing and updating environmental guidelines to be enacted after a comprehensive participatory process with all stakeholders. During project preparation, an EIA was conducted for typical retrofitting activities in schools and hospitals providing the basis to complement existing guidelines. Results are being disseminated among stakeholders as the guidelines are updated through a multi-institutional work group; (ii) preparation of 50 environmental auditors; (iii) creation of monitoring tools for environmental audits, as well as QC/QA activities; and (iv) supporting the development of a financial strategy for DAMA, to ensure adequate environmental management in the capital of Colombia.

In regard to resettlements, the Caja de la Vivienda Popular has a very successful history on hazard risk resettlements and already has a framework approved by the Bank in 2002. Under the preparation of this project this framework has been updated to include the new norms and lessons learned during the last years.

A resettlement framework for involuntary resettlement by retrofitting or new construction was prepared and cleared by the Team's Social Specialist.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people. DAMA has all the environmental guidelines available for public access and the new ones will be made available to contractors and general public through the internet. The new guidelines will be developed together with the contractors and local authorities. The CVP has the framework available for the public access. In addition every resettlement plan based on the Resettlement Framework will be consulted with the beneficiaries and prepared in a participatory process.

B. Disclosure Requirements Date

Environmental Assessment/Audit/Management Plan/Other:

Date of receipt by the Bank

07/27/2005

Date of "in-country" disclosure	07/27/2005
Date of submission to InfoShop	08/08/2005
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	

Resettlement Action Plan/Framework/Policy Process:

Date of receipt by the Bank	07/27/2005
Date of "in-country" disclosure	07/27/2005
Date of submission to InfoShop	08/08/2005

*** If the project triggers the Pest Management, Cultural Property and/or the Safety of Dams policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.**

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?	Yes
If yes, then did the Regional Environment Unit review and approve the EA report?	No
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	No

OPN 11.03 - Cultural Property

Does the EA include adequate measures related to cultural property?	Yes
Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?	No

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan, abbreviated plan, or process framework (as appropriate) been prepared?	Yes
If yes, then did the Regional Social Development Unit review and approve the plan / policy framework / policy process?	No

BP 17.50 - Public Disclosure

Have relevant safeguard policies documents been sent to the World Bank's Infoshop?	Yes
Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?	Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes
Have costs related to safeguard policy measures been included in the project cost?	Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes
Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?	Yes

D. Approvals

Signed and submitted by:	Name	Date
Task Team Leader:	Mr Francis Ghesquiere	08/01/2005
Environmental Specialist:	Mr Alejandro M. Deeb	07/29/2005
Social Development Specialist	Ms Elena Correa	07/27/2005
Additional Environmental and/or Social Development Specialist(s):		
Approved by:		
Regional Safeguards Coordinator:		
Comments:		
Sector Manager:		
Comments:		